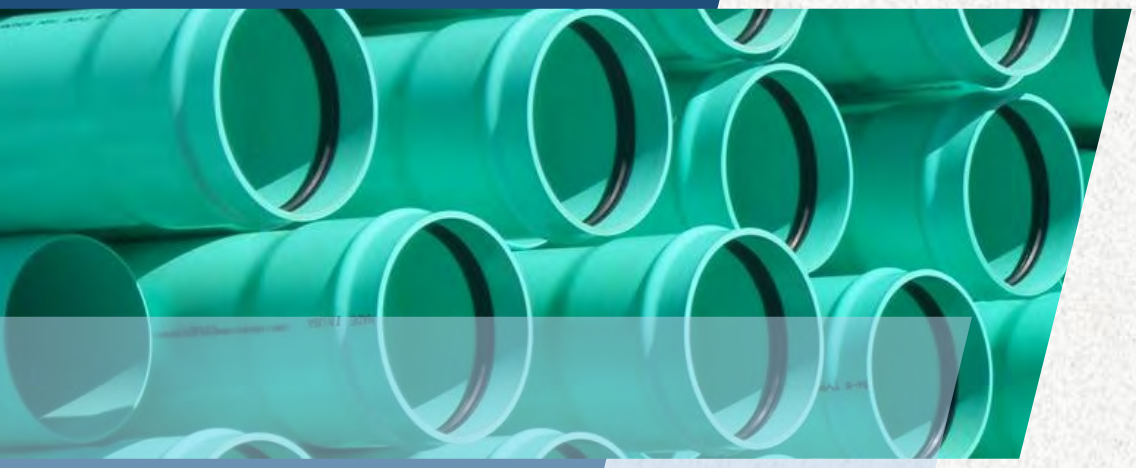
NORTH MANHEIM TOWNSHIP

SCHUYLKILL COUNTY, PENNSYLVANIA

ACT 537
SEWAGE FACILITIES PLAN
UPDATE REVISION

February 2025



SYSTEMS DESIGN
SDE ENGINEERING, INC
1032 James Drive, Leesport, PA 19533

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Section CL ■ PADEP Act 537 Plan Checklist

Section ES ■ Executive Summary

ES.1 Plan Summary ES-1
ES.2 Municipal Adoption ES-4
ES.3 Planning Commission Comments ES-5
ES.4 Publication ES-6
ES.5 Response to Agency and Public Comments ES-7
ES.6 Consistency ES-8

Section 1 ■ Description of the Planning Area

1.1 Background 1-1
1.2 Water Bodies 1-2
1.3 Wetlands 1-2
1.4 Potable Water Supplies 1-3
1.5 Public Sanitary Sewer Areas 1-3
1.6 Geology 1-4
1.7 Soils 1-6
1.8 Groundwater Quality 1-11

Section 2 ■ Planning History

2.1 Sewage Facility Planning 2-1
2.2 Schuylkill County Comprehensive Plan 2-2
2.3 Township Comprehensive Plan 2-3
2.4 Township Zoning Ordinance 2-4
2.5 Floodplain Ordinance 2-5
2.6 Subdivision and Land Development 2-6
2.7 Sewers and Sewage Disposal 2-6

Section 3 ■ Existing Sewage Facilities

3.1 Public Sewage Facilities 3-1
3.2 Schuylkill Haven Basin 3-1
3.2.1 Cleveland Street Meter Connection 3-2
3.2.2 Naffin Avenue Meter Connection 3-3

3.2.3 Other Points of Connection (Unmetered) 3-3
3.2.4 Schuylkill Haven Wastewater Treatment Plant 3-3
3.2.5 Component 3M Sewage Facilities Planning Module for Minor Act 537 Update Revision – Garfield Avenue 3-4
3.3 Cressona Basin 3-5
3.3.1 Chestnut Hill Connection 3-5
3.3.2 Cressona Mall Connection 3-6
3.3.3 Other Points of Connection 3-6
3.3.4 CBA Wastewater Treatment Plant 3-6
3.3.5 Future Service Areas and Need for Intermunicipal Agreement 3-7
3.4 Pottsville Basin 3-7
3.4.1 PGASA Wastewater Treatment Plant 3-8
3.5 Seiders Hill Basin 3-9
3.5.1 Seiders Hill Wastewater Treatment Plant 3-9
3.6 Orwigsburg Basin 3-10
3.6.1 Sammy's Mobile Home Park Wastewater Treatment Plant 3-10
3.6.2 Blue Mountain High School Wastewater Treatment Plant 3-11
3.6.3 Roadhouse 62 (formerly Bums Rush) Wastewater Treatment Plant 3-11
3.6.4 Orwigsburg Wastewater Treatment Plant 3-11
3.7 Private On-Lot Disposal Systems 3-12

Section 4 Population and Wastewater Flow Projections

4.1 Existing Population 4-1
4.2 Projected Population 4-2
4.2.1 Wasteload Management Projections 4-2
4.2.2 Schuylkill County Comprehensive Plan 4-3
4.2.3 Zoning Hearing Board 4-3
4.2.4 Potential Developable Land 4-4
4.3 Project Wastewater Flows 4-5

Section 5 Wastewater Management Alternatives

5.1 Identified Needs 5-1
5.2 Potential Wastewater Treatment Alternatives 5-2
5.2.1 Conventional Treatment Systems 5-2
5.2.2 Individual Sewage Disposal Systems 5-3
5.2.3 Small Flow Treatment Facilities 5-3
5.2.4 Community Wastewater Treatment Facilities 5-3
5.2.5 Holding Tanks 5-4
5.2.6 Sewage Management Programs 5-4
5.2.7 Non-Structural Comprehensive Planning Activities 5-6
5.2.8 No Action Alternative 5-6
5.3 Completed Wastewater Conveyance Improvements 5-7
5.3.1 Authority Maintenance Program 5-7
5.3.2 Pennsylvania State University Maintenance Program 5-8

5.4 Potential Wastewater Conveyance Alternatives 5-8
5.4.1 Pottsville Basin – Extension No. 1 (Hillside Drive/Cressona Road) 5-8
5.4.2 Seiders Hill Basin – Extension No. 1 (Glenworth Road/SPCA Road) 5-8
5.4.3 Cressona Basin – Extension No. 1 (Gordon Nagle Trail/Woodland Dr.) 5-9
5.4.4 Cressona Basin – Extension No. 2 (Elmer Avenue/Morningside Dr.) 5-9
5.4.5 Schuylkill Haven Basin – Extension No. 1 (Long Run Road) 5-9
5.4.6 Schuylkill Haven Basin – Extension No. 2 (Haven – Fairlawn) 5-10
5.4.7 Schuylkill Haven Basin – Extension No. 3 (Spring Street) 5-10
5.4.8 Schuylkill Haven Basin – Extension No. 4 (Manheim Road) 5-10
5.4.9 Schuylkill Haven Basin – Extension No. 5 (Adamsdale Rd/Memorial Dr.) 5-11
5.4.10 Orwigsburg Basin – Extension No. 1A (Renningers to Schuylkill Haven) 5-11
5.4.11 Orwigsburg Basin – Extension No. 1B (Renningers/Adamsdale to Schuylkill Haven) 5-11
5.4.12 Orwigsburg Basin – Extension No. 2A (Renningers to Orwigsburg) 5-11
5.4.13 Orwigsburg Basin – Extension No. 2B (Adamsdale to Orwigsburg) 5-12
5.4.14 Orwigsburg Basin – Extension No. 2C (Renningers/Adamsdale to Orwigsburg) 5-12

Section 6 Evaluation of Alternatives

6.1 Consistency Analysis 6-1
6.1.1 Comprehensive Water Quality Management Plan (COWAMP) 6-1
6.1.2 Municipal Wasteload Management Plans 6-1
6.1.3 Title II of the Clean Water Act 6-3
6.1.4 Comprehensive Planning 6-3
6.1.5 Chapter 93, 95, and 102 Antidegradation Requirements 6-4
6.1.6 State Water Plan 6-4
6.1.7 Prime Agricultural Land Policy 6-5
6.1.8 County Stormwater Management Plans 6-5
6.1.9 Wetlands 6-5
6.1.10 Pennyslvania Natural Diversity Inventory 6-6
6.1.11 Historical and Archeological Resource Protection 6-6
6.1.12 Water Quality Standards and Effluent Limitations 6-7
6.1.13 Resolution of Inconsistencies 6-7
6.2 Additional Environmental Assessment 6-7
6.2.1 National and State Parks, Forest, and Trails 6-7
6.2.2 Floodplains 6-8
6.2.3 Water Quality Issues 6-8
6.2.4 Coastal Resources 6-8
6.2.5 Socio-Economic Issues 6-9
6.2.6 Air Quality 6-9
6.2.7 Transportation 6-9
6.2.8 Noise Abatement and Control 6-9
6.2.9 Wild and Scenic Rivers 6-10
6.2.10 Miscellaneous Environmental Conditions 6-10
6.2.11 Resolution of Inconsistencies 6-10
6.3 On-Lot Service Areas 6-10

6.4 Public Sewage Facilities 6-16
6.4.1 Pottsville Basin – Extension No. 1 (Hillside Drive/Cressona Road)....6-16
6.4.2 Seiders Hill Basin – Extension No. 1 (Glenworth Road/SPCA Road)....6-16
6.4.3 Cressona Basin – Extension No. 1 (Gordon Nagle Train/Woodland Dr.) .6-17
6.4.4 Cressona Basin – Extension No. 2 (Elmer Avenue/Morningside Dr.) 6-17
6.4.5 Schuylkill Haven Basin – Extension No. 1 (Long Run Road) 6-17
6.4.6 Schuylkill Haven Basin – Extension No. 2 (Haven – Fairlawn)....6-18
6.4.7 Schuylkill Haven Basin – Extension No. 3 (Spring Street)....6-18
6.4.8 Schuylkill Haven Basin – Extension No. 4 (Manheim Road)....6-18
6.4.9 Schuylkill Haven Basin – Extension No. 5 (Adamsdale Rd/Memorial Dr.) .6-19
6.4.10 Orwigsburg Basin – Extension No. 1A (Renningers to Schuylkill Haven) ...6-19
6.4.11 Orwigsburg Basin – Extension No. 1B (Renningers/Adamsdale to Schuylkill Haven) 6-19
6.4.12 Orwigsburg Basin – Extension No. 2A (Renningers to Orwigsburg)....6-19
6.4.13 Orwigsburg Basin – Extension No. 2B (Adamsdale to Orwigsburg) 6-20
6.4.14 Orwigsburg Basin – Extension No. 2C (Renningers/Adamsdale to Orwigsburg)....6-20
6.5 Funding Methods and User Rate Analysis 6-20
6.5.1 Pottsville Basin – Extension No. 1 (Hillside Drive/Cressona Road)....6-22
6.5.2 Seiders Hill Basin – Extension No. 1 (Glenworth Road/SPCA Road)....6-22
6.5.3 Cressona Basin – Extension No. 1 (Gordon Nagle Train/Woodland Dr.) .6-23
6.5.4 Cressona Basin – Extension No. 2 (Elmer Avenue/Morningside Dr.) 6-24
6.5.5 Schuylkill Haven Basin – Extension No. 1 (Long Run Road) 6-24
6.5.6 Schuylkill Haven Basin – Extension No. 2 (Haven – Fairlawn)....6-25
6.5.7 Schuylkill Haven Basin – Extension No. 3 (Spring Street)....6-25
6.5.8 Schuylkill Haven Basin – Extension No. 4 (Manheim Road)....6-26
6.5.9 Schuylkill Haven Basin – Extension No. 5 (Adamsdale Rd/Memorial Dr.) .6-27
6.5.10 Orwigsburg Basin – Extension No. 1A (Renningers to Schuylkill Haven) ...6-27
6.5.11 Orwigsburg Basin – Extension No. 1B (Renningers/Adamsdale to Schuylkill Haven) 6-28
6.5.12 Orwigsburg Basin – Extension No. 2A (Renningers to Orwigsburg)....6-29
6.5.13 Orwigsburg Basin – Extension No. 2B (Adamsdale to Orwigsburg) 6-29
6.5.14 Orwigsburg Basin – Extension No. 2C (Renningers/Adamsdale to Orwigsburg)....6-29
6.5.15 Conclusion of Financial Analysis 6-30
6.6 Implementation....6-30

Section 7 ■ Institutional Evaluation

7.1 Public Sewage Facilities 7-1
7.1.1 North Manheim Township 7-1
7.1.2 North Manheim Township Authority....7-1
7.1.3 Borough of Schuylkill Haven 7-2
7.1.4 Borough of Orwigsburg 7-2
7.1.5 Borough of Cressona 7-2
7.1.6 Greater Pottsville Area Sewer Authority 7-3
7.1.7 Schuylkill County Municipal Authority 7-2

7.1.8 Private Systems 7-3
7.2 Institutional Alternatives Necessary to Implement Plan 7-3
7.3 Administrative Alternatives Necessary to Implement Plan 7-4

Section 8 Selected Approach

8.1 Selected Wastewater Management Approach 8-1
8.2 Selected Institutional Approach 8-2
8.3 Selected Financing Approach 8-2

List of Appendices

Appendix A: Act 537 Maps
Appendix B: Agreements
Appendix C: GPASA Response Letter
Appendix D: North Manheim Township Sewer Use Ordinances
Appendix E:DEP Sewage Disposal Needs Identification Guidance
Appendix F:Sewage Needs Surveys
Appendix G:Proposed Sewage Management Ordinance
Appendix H:PA Natural Diversity Inventory Search Results
Appendix I: PA Historic and Museum Commission Cultural Resource Search Results
Appendix J: Opinion of Probable Project Costs and User Rate Analysis for Each Alternative
Appendix K: Seiders Hill WWTP Private Plant to Public Act 537 Plan Requirements

EXECUTIVE SUMMARY

ES.1 Plan Summary

The Pennsylvania Sewage Facilities Act requires that every municipality within the Commonwealth develop and maintain an up-to-date sewage facilities plan. The North Manheim Township Board of Supervisors, Schuylkill County, Pennsylvania, authorized the preparation of this report to serve as its Official Sewage Facilities Plan Update (Plan). The planning period is through 2040.

The Pennsylvania Department of Environmental Protection (PADEP) administers the Act 537 program. PADEP has prepared "A Guide for Preparing Act 537 Update Revisions", dated January 7, 2003, which includes the "General Plan Contents Checklist". This Plan has been prepared in conformance with the PADEP Act 537 Plan Content and Checklist. The checklist has been completed and included with this Plan, indicating where each required item can be found within the Plan.

This Plan is divided into eight chapters with support documentation provided in the appendices. The first four chapters establish the current and predict the future wastewater conveyance and treatment needs of the Township. The last four chapters develop and evaluate alternatives for satisfying the existing and projected wastewater needs of the Township.

The Township is located in south-central Schuylkill County and is comprised of approximately 20.6 square miles of land area. The Township is about 4.0 miles long from north to south and averages approximately 6.75 miles in width. The Township is rural in character; however, portions of the Township along State Route 61 corridor, which traverses the Township north-south between the City of Pottsville and Schuylkill Haven Borough and east-west from Schuylkill Haven Borough to Orwigsburg Borough are more developed. The Pennsylvania Department of Transportation (PENNDOT) recently upgraded State Route 61 into a 4-lane highway through Schuylkill Haven Borough and a portion of the Township. Fourteen municipalities border the Township. Map No. 1, included in Appendix A, shows the municipal boundary of NMT and surrounding municipalities; as well as parcels, roads, streams, and lakes within the Township.

Based on the 2010 United States Census, North Manheim Township was the fifth most populated Township in Schuylkill County. The current population of North Manheim Township is 4,193 based on the latest census estimated (released May 2024). The last official US census in 2020 recorded the population as 4,066. The annual growth rate is approximately 0.80% per year over

the period from 2020 to 2024. This growth is expected to continue over the next 10 years.

Currently, there are approximately 365 residential properties served by either a publicly-owned sanitary sewer system or a privately-owned sanitary sewer system. This equates to a population of 876 persons, or 23.6% of the Township's total population. The remaining properties utilize private on-lot disposals systems.

The number of occupied lots in North Manheim Township currently served by on-lot wastewater systems is estimated to be 1,009. A large amount of these on-lot systems were constructed before 1972, when Pennsylvania established permitting and design standards for on-lot systems. The on-lot areas were evaluated to assess the continued use of on-lot wastewater systems compared to construction of public sewers.

This document has been prepared as an updated Act 537 Plan to include reference to the numerous revisions/updates previously submitted over the prior years by North Manheim Township/North Manheim Township Authority to PADEP, as follows:

- April 15, 1970 – "Water and Sewerage Feasibility Study and Act 537 Planning", Gilbert Associates, Inc.
- February 19, 1975 – "Sewerage Feasibility Report", Gilbert Associates, Inc.
- September 1990 – "Sewer Feasibility Study", Leonard Schickler Associates and Engineering Management, Inc.
- October 21, 1992 – "Seiders Hill Act 537 Plan", Martin and Martin.
- February 1,1993 – "Special Study Act 537 Plan for Route 443, Hilltop Mobile Home Park, & Main Street Areas" – Systems Design Engineering, Inc.
- October 2023 – "Component 3M Sewage Facilities Planning Module" for Act 537 Minor Update Revision, along Garfield Avenue, West 2nd Mountain Road, North Manheim Road and associated connecting streets.

Major findings of this Plan include:

- The majority of the soils located outside the public sewer service area are classified as has having very limited soils suitability for on-lot wastewater disposal systems.
- The wastewater needs assessment conducted as part of the planning identified areas of the Township with confirmed and suspected on-lot system malfunctions. Providing public sewers in these areas is not financially viable.

After an evaluation of available alternatives, the Township has selected the following approach to satisfy its existing and projected wastewater conveyance and treatment needs:

- Continue to convey wastewater from the public sewer service areas of the Township to existing WWTPs. Adjust user rates and tapping fees as needed within these areas to generate sufficient revenue to fund operational and maintenance costs of the system.
- Continue to perform routine maintenance and rehabilitation, as necessary, of the existing public sewer system to maintain adequate conveyance capacity and long-term structural integrity of the system.
- Begin negotiations with the Borough of Cressona and Cressona Borough Authority concerning an intermunicipal agreement. The intermunicipal agreement should encompasses both the existing sewer areas within North Manheim Township that convey sewage to the Cressona Borough Authority's WWTP; as well as additional future sewage that may be generated from the currently unsewered parcels.
- Continue to rely on on-lot wastewater treatment and disposal systems for developed properties located outside the Township's sewer service areas.
- Develop and implement an On-Lot Management Program. This will require the adoption of a new ordinance. Once a new ordinance is adopted, the Township's administrative staff and SEO should be charged with implementation of the program.
- Identify, apply for, and secure adequate grant funding to potentially provide public sewage system in the future.

The institutional arrangements necessary for the implementation of this Plan already exist; however, an intermunicipal agreement with the Borough of Cressona is needed. No new municipal departments or municipal authorities are required to implement the proposed plan. The current arrangement of ownership and operation has satisfactorily met the Township's needs and is expected to meet the long-term needs of the Township.

Table ES.1 summarizes the actions to be taken by the Township to implement the selected approach. Table ES.1 also lists the anticipated schedule for implementation of each action.

Table ES.1: Implementation Schedule

Task	***Date***
30-Day Public Comment Period for the Official Act 537 Sewage Facilities Plan Begins	November 2024
30-Day Agency Comment Period for the Official Act 537 Sewage Facilities Plan Begins	November 2024
Municipality Adopts the Official Act 537 Sewage Facilities Plan	February 2025
Submit the Adopted Official Act 537 Sewage Facilities Plan	March 2025
Receive Approval of the Official Act 537 Sewage Facilities Plan from the DEP	September 2025
Adopt On-Lot Sewage Management Ordinance	December 2025
Develop On-Lot Sewage Management Program based on Ordinance	March 2026
Begin Implementation of On-Lot Sewage Management Program	July 2026
Enter into Inter-Municipal Agreement with Cressona Borough /Cressona Borough Authority	July 2026

ES.2 Municipal Adoption

North Manheim Township adopted the Act 537 Sewage Facilities Plan on XXX XX, XXXX. A copy of the Resolution of Adoption is provided on the following page.

ES.3 Planning Commission Comments

On XXX XX, XXXX, a copy of the Act 537 Sewage Facilities Plan was submitted to the Schuylkill County Planning Commission and the North Manheim Township Planning Commission for their review. A copy of the submittal letters sent to the agencies and their respective comments are provided on the following pages.

ES.4 Publication

A Public Notice concerning the Act 537 Sewage Facilities Plan was published in the *XXXXXXXXXX* on XXX XX, XXXX, which provided information regarding the Plan and the 30-day public comment period. Proof of Publication for the Public Notice is provided on the following page.

ES.5 Response to Agency and Public Comments

Any comments received from the Schuylkill County Planning Commission, North Manheim Township Planning Commission, or the public will be address in the following pages after this Section.

ES.6 Consistency

Section 6 of the Act 537 Sewage Facilities Plan includes documentation indicating that the appropriate agencies have received and reviewed information regarding the implementation of the Act 537 Sewage Facilities Plan. All the comments, which were received from these agencies regarding potential inconsistencies between natural and/or cultural resource management objectives in the Act 537 Sewage Facilities Plan, are provided in the Appendix.

DESCRIPTION OF PLANNING AREA

1.1 Background

The Pennsylvania Sewage Facilities Act requires that every municipality within the Commonwealth develop and maintain an up-to-date sewage facilities plan. The North Manheim Township Board of Supervisors, Schuylkill County, Pennsylvania, authorized the preparation of this report to serve as its Official Sewage Facilities Plan Update (Plan). The Township retained the services of Systems Design Engineering, Inc. to assist with preparation of the Plan. The Township last prepared a Component 3M Sewage Facilities Planning Module for Act 537 Minor Update Revision, along Garfield Avenue, West 2nd Mountain Road, North Manheim Road, and associated connector streets in 2023.

The Pennsylvania Department of Environmental Protection (PADEP) administers the Act 537 program. PADEP has prepared "A Guide for Preparing Act 537 Update Revisions", dated January 7, 2003, which includes the "General Plan Contents Checklist". This Plan has been prepared in conformance with the PADEP Act 537 Plan Content and Checklist. An Environmental Report (ER) is not required since there are no Wastewater projects currently proposed for funding in this Plan. The checklist has been completed and included with this Plan, indicating where each required item can be found within the Plan.

The planning area is the entire Township of North Manheim, and the planning period is through 2040. The Township is located in south-central Schuylkill County and is comprised of approximately 20.6 square miles of land area. The Township is about 4.0 miles long from north to south and averages approximately 6.75 miles in width.

The Township is rural in character; however, portions of the Township along State Route 61 corridor, which traverses the Township north-south between the City of Pottsville and Schuylkill Haven Borough and east-west from Schuylkill Haven Borough to Orwigsburg Borough are more developed. The Pennsylvania Department of Transportation (PENNDOT) recently upgraded State Route 61 into a 4-lane highway through Schuylkill Haven Borough and a portion of the Township.

The northern portion of the Township is primarily forested lands. A large portion of this area is within the Tumbling Run Watershed and is zoned Environmental Protection. Initially, the Tumbling Run twin dams were built as a water supply for the Schuylkill Canal. The dams were purchased by Schuylkill Haven Borough in 1940. The dams and the adjacent water treatment plant serve as the domestic water supply for residents in Schuylkill Haven Borough and a portion

of the Township.

The central and southeastern portion of the Township is rural in character and includes several active farms and Pennsylvania State Lands No. 286. These areas are zoned either Residential – Agricultural or Low Density Residential.

Based on the 2010 United States Census, North Manheim Township was the fifth most populated Township in Schuylkill County and experienced an annual growth rate of about 1.4% per year over the period from 2000 to 2010. This growth is expected to continue over the next 10 years.

Fourteen municipalities border North Manheim Township (NMT). The adjacent municipalities include the City of Pottsville, the Boroughs of Mount Carbon and Palo Alto, and the Townships of Branch, Norwegian, and East Norwegian to the north; the Borough of Orwigsburg and the Townships of Blythe and West Brunswick to the east; the Boroughs of Cressona, Schuylkill Haven, and Landingville and South Manheim Township to the south; and Wayne Township to the west. Map No. 1, included in Appendix A, shows the municipal boundary of NMT and surrounding municipalities; as well as parcels, roads, streams, and lakes within the Township.

1.2 Water Bodies

The Township lies in the Delaware Bay watershed. All water courses within the Township are tributary to the Schuylkill River, which is located within the Delaware River watershed. Streams in the northern portion of the Township include Tumbling Run Creek which is tributary to the Main Branch Schuylkill River and fees twin dams, which total 58 acres that are utilized as source water for the Borough of Schuylkill Haven waster System. Other Main Branch tributary streams in the eastern portion of the Township include Mahannon Creek and Mahonney Creek. Streams in the western portion of the Township include Panther Creek, Beaver Creek, and Long Run Creek, which are tributary to the West Branch Schuylkill River. A few small ponds, all less than 2 acres, are also located in the Township. Map No. 2, included in Appendix A, shows the location of surface water bodies /wetlands within the Township.

1.3 Wetlands

Wetlands are defined by Pennsylvania Title 25, Chapter 105 as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. The three essential characteristics possessed by wetlands are: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology, the driving force creating wetlands. The presence of wetlands on a property limits the type of activities that can take place on the wetland portions of the property.

The Fish and Wildlife Service of the U.S. Department of Interior has mapped some, but not all, wetlands in the Township as part of the National Wetlands Inventory (NWI). Map No. 2, included in Appendix A, shows the NWI identified wetlands, (i.e.,freshwater emergent wetlands and freshwater forested/shrub wetland, freshwater pond, lake, and riverine) within the Township.

Hydric soils, which are one characteristic of a wetlands, are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the top layer. Hydric soils within the Township generally include the Atkins Silt Loam (At) and Shelmadine Silt Loam (ShA and ShB). These soils are found along the Schuylkill River, Tumbling Run Creek, Mahannon Creek, Mahonney Creek, Panther Creek, Beaver Creek, and Long Run Creek. Map No. 3, included in Appendix A, shows the locations of these hydric soils / hydric soils with inclusions as established by U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS) mapping.

1.4 Potable Water Supplies

North Manheim Township does not have any Township owned public water supply; however, public water is provided in various areas within the Township. In the northern tier, water is supplied by the Schuylkill County Municipal Authority, in the southern portion, water is supplied by Schuylkill Haven Borough. Individual on-site wells meet the water supply needs of residents elsewhere in the municipality.

1.5 Public Sanitary Sewer Areas

Public sanitary sewer service is provided within the Township via facilities owned and operated by the following:

- North Manheim Township Authority (NMTA)
- Cressona Borough Authority (CBA)
- Schuylkill County Municipal Authority (SCMA)
- Schuylkill Haven Borough (SHB) / Schuylkill Haven Borough Authority (SHBA)

In the northern tier of the Township, a sewage collection system serves residential properties outside of the Borough of Mount Carbon. The sewage generated from this collection system, which is owned and operated by North Manheim Township Authority, is treated at the Greater Pottsville Area Sewer Authority's (GPASA) wastewater treatment facility.

In addition, the North Manheim Township Authority has an agreement dated July 12, 2010, with the Borough of Orwigsburg and the Municipal Authority of the Borough of Orwigsburg to provide sanitary sewage treatment capacity, if sufficient in the future, to the most southern

portion of North Manheim Township. There are no sewage connections to the Orwigsburg sewer system currently.

In the south-central portion of the Township, the developed areas along the SR 61 corridor as well as, area east of Schuylkill Haven Borough known as the Hillcrest Ave/Earl Street Area are serviced by public sewers owned and operated by North Manheim Township Authority. The sewage generated from these two (2) areas is a mix of residential, commercial and industrial and is treated at Schuylkill Haven Borough's wastewater treatment facility.

Another area served by North Manheim Township Authority is along SR 0443 (Long Run Road). Most of the customers along SR 0443 are residential with a few commercial businesses. The sewage generated from this area is treated at Schuylkill Haven Borough's wastewater treatment facility.

There are other areas within the Township that are currently being served by public sewer owned by the other entities mentioned above. Portions of the Township consisting of the area of the Chestnut Hill development and the Cressona Mall are owned and maintained by the Cressona Borough Authority. Seiders Hill, which is a residential/commercial development located in the northwestern portion of the Township has a wastewater treatment facility and collection system which is owned and operated by the Schuylkill County Municipal Authority.

Map No. 12, included in Appendix A, identifies all areas of the Township currently served by public sewers. Developed commercial and residential properties outside the public sewer area use individual on-lot systems for the treatment and disposal of sewage. Section 3 provides additional information on existing sanitary sewage facilities within the Township.

1.6 Geology

North Manheim Township lies within the physiographic division of Pennsylvania known as the Appalachian Ridge and Valley Province. The Township falls entirely in the Blue Mountain Section of the Ridge and Valley Province. For the most part, the northern Township boundary line is the ridgetop of the Sharp mountain, which divides the Ridge and Valley Section located on the south slope from the Anthracite Upland Section located north slope, which contains the coal measures and associated coal mines and pits. Historically, there have been coal processing operations in the Township, but no extractive coal mining.

- The Anthracite Upland Section consists of an upland that has low, linear to rounded hills, many of which contain strip mines, and mining waste holes. The upland is surrounded by an escarpment, a valley, and a mountain rim. The dominant rock types are sandstone, siltstone, conglomerate, and anthracite coal in narrow folds with steep limbs. The local relief ranges from low to high; elevation in this section ranges from 320 feet to 2,094 feet. Arguably the most complex and most studied section in the state, this area is home

to one of Pennsylvania's most profitable coal fields ever, containing high-grade Anthracite coal.

- The Blue Mountain Section of the Ridge and Valley Province is a linear ridge to the south of the Anthracite Upland Section. The Blue Mountain Section is a south limb of a broad fold formed on sandstone, siltstone, and shale, and some limestone and conglomerate. Very resistant sandstones occur at the crests of the Blue Mountain. Shales and siltstones occur on the slopes and valleys. Local relief is moderate to high. The highest elevation is 1,680 feet.

A series of northeast trending ridges, the result of both compressional forces (which folded the rock strata) and differential erosion, cuts across the Township and forms a rather rugged topography. Level land is confined to narrow strips along the sides of the Schuylkill River.
The Township has about 900 feet of relief, ranging from an elevation of approximately 500 feet (where the Schuylkill River crosses into Landingville Borough) to an elevation of around 1,400 feet (on Second Mountain).

Rock types vary from sandstone and conglomerate to shales and small beds of limestone. The formations regionally strike North 70 Degrees East and dip to the northwest at very steep angles. The dip, in certain local areas, may vary from this northwest direction due to the complexity of the folded strata. One major fault, trending northeast and dipping southeast, runs in the vicinity of Cressona and passes just north of Orwigsburg.

Beginning at the northern boundary and moving to the south, the rocks belong to successively older beds, except for a belt in the southern quarter of the Township where a repetition of beds occur due to a narrow anticlinal fold and subsequent erosion.

Table 1.1 provides information concerning each of the geologic formations found within the Township. Map No. 5, included in Appendix A, provides a graphical representation of the geologic formations identified in Table 1.1.

Table 1.1: Summary of Geologic Formations in North Manheim Township

Symbol	*Name*	*Carbonate*	*Dominant Lithology*	*Secondary Lithology*	*Total Acreage*	*Percent of Twp*
DSop	Onondaga Formation through Poxono Island Formation, undivided	No	Shale	Sandstone	431.9	3.31%
Dcbr	Beaverdam Run Member – Catskill Formation	No	Siltstone	Sandstone	315.6	2.42%
Dccf	Clarks Ferry Member – Catskill Formation	No	Sandstone	Siltstone	515.1	3.94%
Dcd	Duncannon Member – Catskill Formation	No	Sandstone	Siltstone	467.1	3.57%
Dciv	Irish Valley Member – Catskill Formation	No	Siltstone	Mudstone	227.0	1.74%

Table 1.1: Summary of Geologic Formations in North Manheim Township (continued)

Symbol	*Name*	*Carbonate*	*Dominant Lithology*	*Secondary Lithology*	*Total Acreage*	*Percent of Twp*
Dcsc	Sherman Creek Member – Catskill Formation	No	Mudstone	Siltstone	3527.7	27.00%
Dcwt	Walcksville - Towamensing Member - Catskill Formation	No	Sandstone	Siltstone	348.8	2.67%
Dh	Hamilton Group (Mahatango Formation and Marcellus Formation)	No	Shale	Siltstone	2139.9	16.38%
Dtr	Trimmers Rock Formation	No	Siltstone	Shale	882.8	6.76%
MDsk	Speckty Kopf Formation	No	Sandstone	Siltstone	421.3	3.22%
Mmc	Mauch Chunk Formation	No	Shale	Siltstone	2219.0	16.98%
Mp	Pocono Formation	No	Sandstone	Siltstone	1087.8	8.33%
Sb	Bloomsburg Formation	No	Shale	Siltstone	482.0	3.69%

Source: Pennsylvania Bureau of Topographic and Geoloci Survey; Department of Conservation and Natural Resources.

1.7 Soils

The qualities of soils determine a soil's capability of supporting various types and intensities of land uses. For example, agriculture typically requires soils that are level, well-drained and fertile. Residential development in general is adaptable to a wider range of conditions, though the intensity of residential development can be limited by the soil's suitability for on-lot disposal systems and the cost of excavation.

The Soil Conservation Service of the U.S. Department of Agriculture, in conjunction with the Pennsylvania Department of Agriculture and the Pennsylvania State University, has compiled a detailed soil survey of North Manheim Township. A specific soil type is determined by the origin, or "parent material" of the soil, how sandy or clay-like it is, if it has a lot of pebbles or large rocks, how severely eroded it is, and the slope of the area where it is found. ~~In order~~ To facilitate analysis, types are grouped into "soil series." Types within the same series will all have the same parent material and texture but will vary by slope and degree of erosion. Series are in turn grouped into "soil associations." Associations are partially defined by geography and partly by their parent material.

The Survey identified three (3) different soil associations within North Manheim Township:

- Leck Kill-Meckesville-Calvin – Gently sloping to moderately steep, deep and moderately deep, well drained soils, on uplands.
- Berks-Hartleton-Weikert – Gently sloping to very steep, deep to shallow, well drained soils, on uplands.

- Dekalb-Buchanan-Hazleton – Gently sloping to very steep, deep and moderately deep, well drained to somewhat poorly drained soils, on uplands.

The types of soils located on a site have a significant impact on the suitability of that site for supporting on-lot wastewater treatment and disposal systems. Suitable soils must be present to remove and renovate the contaminants present in wastewater by physical, chemical, and biological means before the "wastes" reach the groundwater. Title 25, Chapter 73 of the Pennsylvania Code establishes standards for on-lot wastewater treatment facilities. Key parameters that must be considered include land slope, flooding potential, depth to seasonal high groundwater, depth to bedrock, soil permeability, and horizontal distance to specific land and manmade features.

A general evaluation was made as part of this Plan on the suitability of soils for on-lot treatment and disposal of sewage. The soil suitability evaluation was conducted for those regions of the Township currently not served by public sanitary sewers. The evaluation included a review of the following:

- USDA SCS Soil Survey of Schuylkill County, Pennsylvania.
- Township and other topographic maps.
- PADEP's Technical Manual for Sewage Enforcement Officers.

The information used in the soil suitability evaluation is listed in Table 1.2. The information includes USDA SCS mapping units and soil names, land slopes, depth to bedrock, depth to seasonal high-water table, and soil group designation for land disposal as shown in Appendix A of the PADEP's Technical Manual for Sewage Enforcement Officers.

The following criteria were used to determine which areas are generally unsuitable for on-lot disposal of sewage:

- Land slopes exceeding 25%.
- The depth to seasonal high-water table of less than 20 inches from the ground surface, according to Table 16 of the USDA SCS Soil Survey of Schuylkill County, Pennsylvania.
- The depth to bedrock of less than 20 inches from the ground surface, according to Table 16 of the USDA SCS Soil Survey of Schuylkill County, Pennsylvania.
- Soils included in Groups 13, 14, and 15 of Appendix A of the Department of Environmental Protection's Technical Manual for Sewage Enforcement Officers.

Soils included in Group 13 occur on floodplains and have a high flooding hazard, making them unsuitable for on-lot disposal systems. Group 14 soils have a seasonal high-water table, which limits their use for on-lot disposal systems with conventional adsorption or elevated sand mound

drainage fields. Group 15 soils are poorly or very poorly drained and have a high-water table, also generally making them unsuitable for on-lot disposal systems.

Map No. 6, included in Appendix A, provides a graphical depiction of the soils as identified by the USDA SCS Soil Survey. Map No. 7, included in the back of this Plan, provides a graphical depiction of steep slopes as identified by the Pennsylvania Spatial Data Access (PASDA).

Map No. 8, included in Appendix A, provides a soil suitability map prepared using the soil survey mapping units and associated soil suitability comments from Table 1.2. All mapping units with Comments 1 or 2 in Table 1.2 are shown as unsuitable in Map No. 8. Mapping units with Comments 3 through 5 in Table 1.2 are shown as marginally suitable for on-lot sewage disposal in Map No. 8. Mapping units with Comment 6 in Table 1.2 are shown as suitable for on-lot sewage disposal in Map No. 8. As seen from Map No. 8, most of the land outside the public sewer service areas is marginally suitable for an on-lot sewage disposal.

Table 1.2: North Manheim Township Soil Characteristics

Soil Map Unit	*Soil Name*	*Slope (%)*	*Depth To Bedrock (In)*	*Depth To Seasonal High Water Table (In)*	*Soil Group*	*Suitability For Subsurface Sewage Disposal*		*Hydric Soil*	*Soil With Hydric Inclusion*	*Prime Farmland*	*Statewide Important Soil*
AeB	Allenwood gravelly silt loam	3-8	80+	80+	6	S	(6)	N	N	Y	N
AeC	Allenwood gravelly silt loam	8-15	80+	80+	6	S	(6)	N	N	N	Y
AgA	Alvira silt loam	0-3	15-28	6-18	15	UN	(7)	N	Y	N	Y
AgB	Alvira silt loam	3-8	15-28	6-18	15	UN	(7)	N	Y	N	Y
At	Atkins silt loam	0-3	60-99	0-12	13	UN	(7)	Y	Y	N	Y
Ba	Basher silt loam	0-3	72-99	18-24	13	UN	(7)	N	Y	Y	N
BeB	Berks channery silt loam	3-8	20-40	80+	3	M	(5)	N	Y	N	Y
BeC	Berks channery silt loam	8-15	20-40	80+	3	M	(5)	N	Y	N	Y
BeD	Berks channery silt loam	15-25	20-40	80+	3	M	(5)	N	Y	N	N
BuB	Buchanan gravelly loam	3-8	60-99	14-30	14	UN	(7)	N	Y	Y	N
BuC	Buchanan gravelly loam	8-15	20-36	14-30	14	UN	(7)	N	Y	N	Y
BxB	Buchanan extremely stony loam	3-8	20-36	6-36	14	UN	(7)	N	Y	N	N
BxD	Buchanan extremely stony loam	8-25	20-36	6-36	14	UN	(7)	N	Y	N	N

Table 1.2: North Manheim Township Soil Characteristics (continued)

Soil Map Unit	*Soil Name*	*Slope (%)*	*Depth To Bedrock (In)*	*Depth To Seasonal High Water Table (In)*	*Soil Group*	*Suitability For Subsurface Sewage Disposal*		*Hydric Soil*	*Soil With Hydric Inclusion*	*Prime Farmland*	*Statewide Important Soil*
CaB	Calvin shaly silt loam	3-8	20-40	80+	7	M	(5)	N	N	N	Y
CaC	Calvin shaly silt loam	8-15	20-40	80+	7	M	(5)	N	N	N	Y
CaD	Calvin shaly silt loam	15-25	20-40	80+	7	M	(5)	N	N	N	N
DeD	Dekalb channery sandy loam	8-15	20-40	80+	5	M	(5)	N	N	N	Y
DkB	Dekalb channery sandy loam	0-8	20-40	80+	5	M	(5)	N	N	N	N
DkC	Dekalb channery sandy loam	8-25	20-40	80+	5	M	(5)	N	N	N	N
DMF	Dekalb and Lehew extremely stony soils	35-70	20-40	80+	5	M	(5)	N	N	N	N
DR	Dekalb - Rubble land association	15-25	20-40	80+	5	M	(5)	N	N	N	N
Ds	Dumps, coal waste	N/A	N/A	N/A	N/A	UN	N/A	N	Y	N	N
Du	Dumps, mine	N/A	N/A	N/A	N/A	UN	N/A	N	Y	N	N
HaB	Hartleton channery silt loam	3-8	40-60	80+	2	M	(5)	N	N	Y	N
HaC	Hartleton channery silt loam	8-15	40-80	80+	2	M	(5)	N	N	N	Y
HaD	Hartleton channery silt loam	15-25	40-60	80+	2	M	(5)	N	N	N	N
HeD	Hazleton chammery fine sandy loam	15-25	40-80	80+	4	M	(5)	N	N	N	N
HfB	Hazleton extremely stone fine sandy loam	3-8	40-80	80+	4	M	(5)	N	N	N	N
HfC	Hazleton extremely stone fine sandy loam	8-25	40-80	80+	4	M	(5)	N	N	N	N
KeB	Kedron silt loam	3-8	20-32	6-36	14	UN	(2)	N	Y	Y	N
KeC	Kedron silt loam	8-15	20-32	6-36	14	UN	(2)	N	Y	N	Y
KvB	Kedron very stoney silt loam	3-8	20-32	6-36	14	UN	(2)	N	Y	N	N
KvC	Kedron very stoney silt loam	8-25	20-32	6-36	14	UN	(2)	N	Y	N	N
LaB	Laidig gravelly loam	3-8	30-50	28-48	6	M	(4)	N	N	Y	N
LdB	Laidig extremely stony loam	3-8	18-36	30-48	6	UN	(1)	N	N	N	N
LdC	Laidig extremely stony loam	8-25	60-99	30-50	6	M	(4)	N	Y	N	N

Table 1.2: North Manheim Township Soil Characteristics (continued)

Soil Map Unit	Soil Name	Slope (%)	Depth To Bedrock (In)	Depth To Seasonal High Water Table (In)	Soil Group	Suitability For Subsurface Sewage Disposal		Hydric Soil	Soil With Hydric Inclusion	Prime Farmland	Statewide Important Soil
LeB	Leck kill channery silt loam	3-8	40-80	80+	2	M	(5)	N	N	Y	N
LeC	Leck kill channery silt loam	8-25	40-80	80+	2	M	(5)	N	N	N	Y
LgB	Lehew channery loam	3-8	20-40	80+	5	M	(5)	N	N	N	Y
LgC	Lehew channery loam	8-15	20-40	80+	5	M	(5)	N	N	N	Y
LgD	Lehew channery loam	15-25	20-40	80+	5	M	(5)	N	N	N	N
LhB	Lehew extremely stony loam	3-8	20-40	80+	5	M	(5)	N	N	N	N
LhC	Lehew extremely stony loam	8-25	20-40	80+	5	M	(5)	N	N	N	N
MeB	Meckesville loam	3-8	60-99	25-48	10	M	(4)	N	N	Y	N
MeC	Meckesville loam	8-15	60-99	25-48	10	M	(4)	N	N	N	Y
MeD	Meckesville loam	15-25	60-99	25-48	10	M	(4)	N	N	N	N
MkB	Meckesville very stony loam	3-8	25-48	25-48	10	M	(4)	N	N	N	N
MkC	Meckesville very stony loam	8-25	25-48	25-48	10	M	(4)	N	N	N	N
Ph	Philo silt loam	0-2	80+	18-24	13	UN	(7)	N	Y	Y	N
ShA	Shelmadine silt loam	0-3	18-30	0-6	15	UN	(7)	Y	N	N	N
ShB	Shelmadine silt loam	3-8	18-30	0-6	15	UN	(7)	Y	N	N	N
UD	Udifluvents, coal overwash	0-3	80+	36	N/A	M	(4)	N	Y	N	N
Uf	Udifluvents, gravelly	0-8	80+	36	N/A	M	(4)	N	Y	N	N
UU	Urban land - Udults complex	0-35	10	80+	N/A	UN	(1)	N	Y	N	N
W	Water	N/A	N/A	N/A	N/A	UN	(2)	N	N	N	N
WKF	Weikert and Klinesville shaly silt loam	25-75	10-20	80+	12	UN	(1)	N	N	N	N
WaB	Watson silt loam	3-8	18-32	18-36	14	UN	(7)	N	Y	Y	N
WaC	Watson silt loam	8-15	18-32	18-36	14	UN	(7)	N	Y	N	Y

Comments:

(1) Unsuitable for subsurface sewage disposal due to slopes >25% or bedrock at <20 inches.
(2) Unsuitable for subsurface sewage disposal due to flooding or high-water table.
(3) Marginally suitable for subsurface sewage disposal due to slopes >15%
(4) Marginally suitable for subsurface sewage disposal due to shallow depth to seasonal high water table.
(5) Marginally suitable for subsurface sewage disposal due to shallow depth to bedrock.
(6) Suitable
(7) From Appendix A of DER Technical Manual for Sewage Enforcement Officers.

Prime agricultural soils and soils of statewide importance within the study area are also shown on Map No. 9, included in Appendix A. The soils within the study area were identified using the USDA SCS Soil Survey of Schuylkill County, Pennsylvania. As the Map indicates, soils of both Prime Farmland as well as Farmland of Statewide Importance are found within North Manheim Township. Most of these soils are concentrated in an east-west band across the southern portion of the Township in the valley areas. For the most part there is little actual Prime Agricultural Soils within the Township. Most of the agricultural soils are within the category of Farmland of Statewide Importance. Further, while agricultural activities are found within these areas, these lands also tend to be concentrated along the major existing development corridor along Routes 61 and 443; thus, as development within the Township has occurred, it has occurred at the expense of removing these lands from existing or future agricultural use.

Soil testing was not performed in conjunction with the preparation of this Plan. Site specific investigations are required to determine soil characteristics and suitability at a given location within the study area on a case-by-case basis. There are no known protected soils, farms, or agricultural security areas within the Township.

1.8 Groundwater Quality

Although most of developed parcels within the Township utilize both public water and public sanitary sewer service, approximately 1,000 properties are located outside these service areas and currently depend on private wells for water supply and individual on-lot systems for sanitary sewage disposal. Map No. 4, included in Appendix A, identifies all developed parcels in the Township with on-lot wastewater treatment and disposal systems.

A well water sampling program was not conducted as part of this Plan to assess the quality of the groundwater in areas outside the public water and sewer service areas.

PLANNING HISTORY

2.1 Sewage Facility Planning

The first public sewers were installed in North Manheim Township in the 1960s, and the sewage was conveyed to the Schuylkill Haven Borough wastewater treatment plant. Several sewage facility planning activities for the Township have occurred since construction of the first sewer lines. The Township last officially updated its Sewage Facilities Planning in 2006, as indicated below. Table 2.1 summarizes the applicable plans by year planning was completed and resultant facilities constructed.

Table 2.1: Summary Previous Sewage Facility Planning

Year	*Report Title*	*Resultant Activities*
1970	Water and Sewerage Feasibility Study and Act 537 Planning	No improvements constructed.
1973	Sanitary Sewer Extension Study	Construction of sewage collection system to serve the Cressona Mall
1975	Sewerage Feasibility Report: 1975 Revision	No improvements constructed.
1990	Sewer Feasibility Study	No improvements constructed.
1992	Seider's Hill Development Act 537 Plan – Section 3A	Construction of sewage collection system and WWTP for the Seiders Hill Development
1993	Act 537 Plan Special Study – Route 443 Corridor, Hilltop Mobile Home Park, and Main Street Areas	Construction of the Long Run Interceptor Sewer and Main Street sewers
2000	Feasibility Study – Adamsdale Area, Renninger's Market Area, Earl Street, Hillcrest Avenue, and Elimination of Connection to Cressona Trunkline	Construction of the Hillcrest Avenue and Earl Street Extensions
2006	Feasibility Study Update – Renninger's Market for Metropolitan Development's Paparazo Tract Project	No improvements constructed.
2023	Component 3M Sewage Facilities Planning Module for Act 537 Minor Update Revision, along Garfield Avenue, West 2nd Mountain Road, North Manheim Road and associated connecting streets	PENNVEST funding has been secured, implementation anticipated in 2025.

The Township has not completed all of the potential sanitary sewer improvement projects identified in its previous Sewage Facilities Planning. Potential projects not completed are also addressed in this Plan.

In addition, North Manheim Township's Sewage Facilities Planning has been revised each time PADEP Sewage Facilities Planning Modules or Planning Module Exemptions are submitted and approved for on-lot sewage disposal systems or sanitary sewer extensions to serve new developments.

2.2 Schuylkill County Comprehensive Plan

The Schuylkill County Board of Commissioners adopted an update to the County Comprehensive Plan in 2006. The Plan discusses the current treatment of sewage and the existing problems associated with treatment. The Plan offers recommendations on growth and land use within the County while recognizing land and infrastructure capabilities in relation to natural features and environmental and physical factors. The Plan encourages that most new development within the County be located in or around areas that are characterized by residential populations and urban settings that have existing services and infrastructure, such as public sewer and water. The Plan suggests that new development in and around existing communities will take the form of redevelopment or new construction, with cluster development being encouraged whenever possible. The Plan discourages the expansion of new infrastructure into existing agricultural areas. The intent of directing future development to existing infrastructure areas is to maximize the investment of the existing infrastructure systems, fill in the undeveloped areas within already developed land, and reduce the pressure to develop agricultural areas for other uses. Recommendations for municipalities within the County related to land use or sewage facilities called out in the County Plan included the following:

- Ensure that development occurs in ways that minimize degradation of natural and cultural environments.
- Ensure that development occurs in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors.
- Provide public services, facilities, and utilities in the most efficient, cost-effective manner, considering community needs and environmental factors.
- Support efforts of water supply and wastewater treatment authorities to plan for expansion of capacities and extensions of the areas of service in accordance with growth projections and the Growth Management Plan of the County Comprehensive Plan.

The Land Use Plan component of County Comprehensive Plan recognizes current and expected development trends in Schuylkill County, indicating that, among other areas, its southern tier, which includes the Township, will continue to be primary growth areas. Growth in the south is focused on existing boroughs and their surrounding areas, including Schuylkill Haven, Cressona, and Orwigsburg. Limited growth is planned for the Borough of Landingville, since this community lacks a public sewer system.

The Plan indicates that although the County's water systems will be adequate to accommodate growth, there will be a need to plan for system upgrades and improvements in anticipation of this growth. Regarding wastewater treatment, many of the municipal systems in the County are at or nearing their capacity. The Plan recommended an overall study of the county to assess the capacity of existing systems as well as address environmental issues, such as combined sewer systems. This study should also address prospective new development since the Growth Management Plan clearly implies corresponding increases and improvements to existing sewer systems will need to occur to accommodate growth in and around existing communities during the planning period. A sewer service area study by the County has not been completed recently as the date of this report.

2.3 Township Comprehensive Plan

The Comprehensive Plan for North Manheim Township was updated in 2010. The Updated Comprehensive Plan was intended to establish overall policies for the development and conservation of Township for at least a 10 year period. The Plan aims to achieve its established goals and objectives in a manner that is consistent with that of the Schuylkill County Comprehensive Plan. This comprehensive plan includes the following:

- A plan for land use,
- A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality,
- A plan for movement of people and goods,
- A plan for community facilities and utilities, and
- A plan for the protection of natural and historic resources to the extent not preempted by federal or state law.

Objectives of the Comprehensive Plan that relate to existing and future sewage facilities and environmental concerns in North Manheim Township included the following:

- Public sewerage is already supplied to the most densely populated areas of the Township. The Plan promotes opportunities for communication and cooperation between the Township and Authority/entities that manage these systems. The Plan further states that communication and cooperation is essential if the growth policies of the Township are to agree with the plans of the Authority/entities.
- Sewer service should be extended throughout the Township by the Township Authority in areas which can be feasibly provided with these facilities.
- Control urban sprawl by focusing higher density residential development in those areas served by public facilities.
- Coordinate proposed industrial growth areas with planned public utility service areas.

- Protect important headwaters of the Schuylkill River and other local watersheds given their effect on groundwater.
- Recognize and preserve important farmlands within the Township for future generations.
- Protect steep slope areas from unnecessary development.
- Establish lower density, larger lot land use policy which recognizes the existence of soil conditions in the Township which are not well suited for on-lot sewage disposal.
- Rely upon the Act 537 Sewer Planning to guide future sewer service areas.

2.4 Township Zoning Ordinance

North Manheim Township recognizes the need for controlling the development patterns within its boundaries by establishing and enforcing appropriate zoning ordinances. The Township has enacted an updated Zoning Ordinance to regulate the type and density of development within the Township. The updated zoning ordinance was adopted on June 26, 2007 (amended 10/15/15). A copy of the current zoning map is included as Map No. 10, included in Appendix A. The various zoning districts and permitted uses within each district are detailed in the Zoning Ordinance. The current Township zoning is a valuable tool in evaluating the wastewater facility needs of the planning area by regulating lot sizes and densities. These factors dictate the type of sewage treatment and disposal system that will serve the property or development, as summarized in Table 2.2 below.

The Zoning Ordinance and map were also used to establish projected land uses and development densities for evaluating the future wastewater facilities needs of the Township.

Table 2.2: Township Minimum Lot Size Requirements Based on Sewage Disposal

Zoning District	***Minimum Lot Size (acres)***		
	Public Sewers		***On-Lot Disposal***
	(With Public Water)	***(Without Public Water)***	
EP – Environmental Protection	5.0 acres	5.0 acres	5.0 acres
RA – Residential - Agriculture	5.0 acres	5.0 acres	5.0 acres
R1 – Low Density Residential	1.0 acre	1.0 acres	1.0 acre
R2 – Medium Density Residential	0.23 acre	0.34 acre	1.0 acre
C1 – Neighborhood Commercial	0.27 acre	0.34 acre	0.46 acre
C2 – General Commercial	0.46 acre	0.46 acre	0.46 acre
C3 – Highway Commercial	0.46 acre	0.46 acre	0.46 acre
I – Industrial	0.23 acre	0.34 acre	0.46 acre

The Zoning Ordinance further states that townhouses and multi-family dwelling units, which are permitted by special exception in the R2 District, must be served by public water and sewage disposal systems. In addition, mobile home parks, which are permitted by special exception in

the R1 District, must be served by either a public sewage disposal system or a centralized sewage disposal system.

2.5 Floodplain Ordinance

North Manheim Township replaced Part B of its Zoning Ordinance pertaining to Floodplains by adopting a new Flood Plain Ordinance on 4/18/2021, specifically addressing development within floodplains. The identified floodplain areas are those areas which are subject to the 100-year flood, as shown on the most recent Flood Insurance Study (FIS) prepared by the Federal Emergency Management Agency (FEMA) and consist of the following specific areas:

- FW (Floodway Area) – the areas identified as "Floodway" in the AE Zone in the FIS.
- FF (Flood-Fringe Area) – the remaining portions of the 100-year floodplain in those areas identified in the AE Zone in the FIS.
- FE (Special Floodplain Area) – the area identified as Zone AE in the FIS, where 100-year flood elevations have been provided but no floodway has been delineated.
- FA (General Floodplain Area) – the areas identified as Zone A in the FIS for which no 100-year flood elevations have been provided.

The current Flood Hazards Areas map based on information presented in the FIS prepared by FEMA is included as Map No. 11, included in Appendix A.

The Floodplain Ordinance includes the following provisions:

- No encroachment, alteration or improvements of any kind shall be made to any water course until affected adjacent municipalities are notified and all required PADEP permits have been obtained.
- Any new construction, development, use, activity, or encroachment that would cause any increase in flood heights shall be prohibited in FW (Floodway Area).
- Any new construction or development shall not be allowed if it is demonstrated that the cumulative effect of the proposed development, combined with all other existing and anticipated development, will increase the elevation of the 100-year floodplain by one foot (1') or more in FE (Special Floodplain Area).
- Any new construction or development shall be prohibited within the fifty feet (50') from the top-of-bank of any water course in FE (Flood-Fringe Area) and FA (General Floodplain Area) without a permit from the PADEP.
- Hospitals, nursing homes, prisons, schools, motels and hotels, and manufactured home parks are prohibited in any identified floodplain area.

2.6 Subdivision and Land Development

The North Manheim Township has adopted a Subdivision and Land Development Ordinance to govern subdivision and land development activity within the Township. The Township Board of Supervisors adopted a Subdivision Land Development Ordinance in January 2010 (amended 10/15/15). Provisions of the current ordinance related to sanitary sewage disposal include the following:

- Lots may not be built upon until a final plan has been approved and recorded by North Manheim Township and all applicable fees have been paid.
- Preliminary plans must include a Subdivision Sewage Disposal Report whenever soil percolation tests are required.
- Final plans must include certification of approval by the PADEP for sanitary sewage disposal systems.
- Developers must obtain a certificate from the Township Engineer stating all improvements have been installed in accordance with the standards and requirements contained in the regulations or post a 120 percent performance guarantee with the Township.
- Where a public sanitary sewer will not be accessible at the time of development but is planned to be accessible within 5 years of the final approval, the applicant shall install approved capped sewer lines within the limits of the land development or subdivision, in addition to the approved on-site sewage facilities.
- Where public sanitary sewers are not required, and if an Economic Feasibility Report determines a central sewage system is not required, then each lot shall be required to be served by an on-lot sewage disposal system that will meet all applicable State regulations. Each proposed location shall be tested and approved by the Township Sewage Enforcement Officer, prior to approval of the preliminary plan.

2.7 Sewers and Sewage Disposal

The North Manheim Township has adopted a Sewers and Sewage Disposal Ordinance to govern connections to the public sewage systems within the Township. The Township Board of Supervisors adopted the existing Ordinance in January 2010 (Chapter 12 amended 10/13/11). Provisions of the current ordinance include the following:

- Where public sanitary sewers are within 150 feet of the principal building, then the owner shall connect such improved property to the sewer system in such a manner as the Township requires. If the owner fails to connect to the sewer system, the Township has the right to make the connection and collect the costs thereof.
- No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used or maintained on a property that is connected to the sewer system.
- Where all other forms of sewage disposal have been evaluated and found to be unusable, the Township does permit the use of a holding tank for sewage disposal. If a holding tank it utilized, the Township regulates design and installation of the holding tank in

accordance with PADEP regulations. In addition, the Township requires an annual inspection of any holding tank that includes review and retainage of any pumping receipts, as well as other requirements.

EXISTING SEWAGE FACILITIES

3.1 Public Sewage Facilities

Wastewater generated in North Manheim Township that is discharged to the public sewer system is conveyed to and treated at one of four public WWTPs; the Schuylkill Haven WWTP, the Cressona WWTP, the Pottsville WWTP, or the Seiders Hill WWTP (owned and operated by the Schuylkill County Municipal Authority). In addition, a portion of the Township in the Orwigsburg Basin is serviced by other treatment facilities which are privately owned and operated by Sammy's Mobile Home Park, the Blue Mountain High School and Roadhouse 61 (formerly Bums Rush). It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale. The extent of drainage basins within the Township are shown on Map 12, included in Appendix A.

North Manheim Township has entered into prior agreements with the public municipalities/municipal authorities to address the conveyance and treatment of wastewater generated in portions of the Township that are served by public facilities located outside of the Township.

Map 13, which is included in Appendix A, is divided into five drainage basins (Map 13A through Map 13F) for the purpose of sewage facility planning. A portion of the wastewater generated in four of these basins is currently treated at wastewater treatment facilities as described below. Except as mentioned above and described in Section 3.6 below, wastewater generated in the Orwigsburg Basin is exclusively handled by private on-lot disposal and/or privately owned wastewater systems. Private on-lot systems are addressed in Section 3.7 below.

3.2 Schuylkill Haven Basin

Wastewater generated in the Schuylkill Haven Basin that is serviced by public sewers is conveyed and treated at the Schuylkill Haven WWTP, which is owned and operated by the Borough of Schuylkill Haven Municipal Authority. Sewers within the Schuylkill Haven Basin located within the Township, are primarily owned and operated by the North Manheim Township Authority (NMTA). The Penn State University Schuylkill Campus and Rosewood Rehabilitation Nursing Center have privately owned sanitary sewer collection systems that connect to the NMTA's collection system.

NMTA entered into an inter-municipal agreement with both the Borough of Schuylkill Haven on August 18, 1992, for treatment of sewage generated in the Township and conveyed to the Schuylkill Haven WWTP for treatment. The agreement has been amended twice; the last being on July 1, 2007. A copy of the agreement and subsequent amendments is provided in Appendix B. The agreement is further implemented as follows:

- NMTA provides direct billing to its customers. Schuylkill Haven bills the NMTA an annually adjusted Borough Charge based on sewage meter readings at two metering stations; as well as a flat rate for properties that are not metered at either of the metering stations. Sewage flows are also adjusted by a third metering station for Wayne Township Municipal Authority flows entering the NMTA sewer system.

- The Borough, on behalf of and as an agent for the Township and NMTA, performs technical and administrative duties necessary to implement and enforce the Borough's Industrial Sewer Use Ordinance 1065, dated 8/17/2011.

There are two distinct major areas of North Manheim Township which are conveyed to the Schuylkill Haven WWTP, as follows:

3.2.1 Cleveland Street Meter Connection:

The NMTA sanitary sewer system known as the Long Run Interceptor Area consists of approximately 1,887 linear feet of 8-inch PVC, SDR-35 collection lines and approximately 7,518 linear feet of 8-inch PVC, SDR-35 trunk lines along SR 0443 (Long Run Road), which serves 61 equivalent dwelling units (EDUs).

Wayne Township Municipal Authority (WTMA), which constructed a sewage collection and conveyance system in 2010 to serve approximately 440 EDU's in Wayne Township, is connected to NMTA's Long Run Interceptor trunk line. All WTMA sewage flow is measured by a sewage flow meter located South of S.R. 0443 at the Wayne Township / North Manheim Township municipal boundary line. All flow from the WTMA system is transported through NMTA's Long Run Interceptor trunk line, where the combined flows are measured at the Cleveland Street meter at the North Manheim Township / Schuylkill Haven Borough municipal boundary line. Meter readings from both meters are generally recorded on a weekly basis by the Borough. NMTA's flows for the Long Run Interceptor Area are determined by subtracting the WTMA meter readings from the Cleveland Street meter readings.

NMTA also had cellular data loggers installed at the three metering stations (Wayne, Cleveland Street and Naffin Avenue) on July 25, 2023 to allow the NMTA to download the sewer flow data from a desktop/cellular device to eliminate the need to download the sewer flow data manually on-site.

3.2.2 Naffin Avenue Meter Connection:

The NMTA sanitary sewer system that conveys sewage from a portion of North Manheim Township east of Schuylkill Haven Borough ~~and~~ is measured at the Naffin Avenue meter and includes several areas. They are:

- GPIDC Line – The facilities constructed by the Greater Pottsville Industrial Development Corporation (GPIDC), consists of approximately 7,260 linear feet of 8-inch VTC pipe and approximately 2,187 linear feet 12-inch VTC pipe.
- Penn State University – Penn State University owns and operates a private sewage collection system for its campus that connects to the GPIDC Line.
- The North Manheim Estates Mobile Home Park (previously known as the Hilltop Mobile Home Park) consists of approximately 460 linear feet of 6-inch PVC, SDR-35 and approximately 2,167 linear feet of 8-inch PVC, SDR-35 pipe.
- Earl Street Extension – The extension consists of approximately 198 linear feet of 8-inch PVC, SDR-35 pipe.
- Sunnyside Subdivision – The facilities consist of approximately 7,613 linear feet of 8-inch PVC, SDR-35 pipe.

Meter readings are recorded on a weekly basis by employees of the Borough of Schuylkill Haven and by the NMTA utilizing their cellular data logger located at Naffin Avenue.

3.2.3 Other Points of Connection (Unmetered):

There are a number of other locations within the Township that are connected directly to the Schuylkill Haven sewage collection system and are metered at either Cleveland Street meter or the Naffin Avenue meter. The connections include:

- U.S. Army Reserve Center – South side of S.R. 0061, east of Mildred Street.
- Ebinger Iron Works – North side of S.R. 0061, west of Mildred Street.
- Hillcrest Avenue Area – 18 residential properties east of Avenue E, South of S.R. 0443 (Main Street).
- Bedway Strip Mall – North side of S.R. 0061, east of S.R. 0183 / S.R. 0061 intersection.
- Alpha Mills – North side of S.R. 0061, south of S.R. 2006, Second Mountain Road.
- 1464 Long Run Road - connected to the Schuylkill Haven sewer main on Guldin Street.

3.2.4 Schuylkill Haven Wastewater Treatment Plant:

The Schuylkill Haven WWTP is operated under NPDES Permit No. PA0029017. This permit was set to expire on April 30, 2024. An application has been submitted for a new NPDES Permit. Based on information presented in Schuylkill Haven's 2023 Chapter 94

Wasteload Management Report, the existing permit limits and plant description are as follows:

Flow	2,800,000 GPD Design Capacity
Influent BOD_5	5,204 lbs BOD_5/day Design Capacity
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	200 CFU/100 ml Geometric Mean
	2,000 CFU/100 ml Instantaneous Maximum
pH	6.0 S.U. minimum
	9.0 S.U. maximum
Total Residual Chlorine	0.32 mg/L Average Monthly
	1.07 mg/L Instantaneous Maximum

The wastewater treatment plant consists of a primary channel and a secondary bypass channel, an aerated grit chamber, an influent wetwell with four variable speed pumps , two primary settling tanks, three aeration tanks with fine bubble diffusers, three parallel final settling tanks, a chlorine contact tank, and Parshall flume. Sludge is processed with a rotary sludge thickener, digester tanks, and dewatered by a screw press. Effluent flow is measured by a Parshall flume and ultrasonic flow meter. The Borough has recently completed a major upgrade project at its WWTP.

Annual average daily flow for 2023 was 925,000 GPD, while the 3-month maximum daily flow during this period was 1,177,000 GPD. The maximum average monthly organic loading for 2023 was 2,536 lbs./day ($BOD_{5)}$.

Based on the evaluation, it is stated that the treatment plant has the capacity to handle the maximum projected hydraulic and organic loading rates for at least the next five years.

3.2.5 Component 3M Sewage Facilities Planning Module for Minor Act 537 Update Revision – Garfield Avenue:

The NMTA submitted a separate Component 3M Sewage Facilities Planning Module to PADEP for review and approval on January 2, 2024. The Planning Area is geographically located in southern Schuylkill County. The Planning Area consists of 55 residential properties and has a land area of 220.32 acres. The project area is located north of the Schuylkill Haven Borough and one mile east of the Cresson Borough. Sewage from this area is to be treated at the Borough of Schuylkill Haven WWTP. Total project cost is estimated to be $2,345,265. Construction is expected to be completed in 2025-2026.

The NMTA received a Funding Offer from PENNVEST on April 24, 2024 in the form of a loan for the full amount of the total project cost estimated above.

3.3 Cressona Basin

Wastewater generated in the Cressona Basin that is serviced by public sewers is conveyed and treated at the Cressona WWTP, which is owned and operated by the Cressona Borough Authority (CBA). Currently, sewers located within the Cressona Basin are owned and operated by the CBA. There are two distinct areas of North Manheim Township which are conveyed to the Cressona WWTP, as described below:

3.3.1 Chestnut Hill Connection:

A sanitary sewer system known as the Chestnut Hill System consists of 8-inch PVC gravity sewers and sewage pump station and force main that services the Chestnut Hill development. Sewage generated in the Chestnut Hill development is conveyed and treated at the CBA WWTP. Treatment is provided under a May 29, 1990 agreement known as the XAR Agreement. A copy of the agreement is provided in Appendix B. The agreement states the following:

- CBA will provide sewage service to the development until such time as the Township constructs or acquires its own sewage collection and treatment system to serve the development.
- The agreement allocates 87,500 GPD of capacity to the development (250 EDUs at 350 GPD/EDU).
- CBA will provide direct billing to the customers within the Chestnut Hill development.
- Within two (2) years after completion of the system, the system was to be transferred to CBA for continuous operation, maintenance, and repair of the system.

Currently, 129 properties are connected to the Chestnut Hill System.

A sketch plan was submitted for a proposed development in Chestnut Hill (Phase V) on June 2, 2015. The development was to be called the Chestnut Hills Apartments and included nine (9) buildings with 76 units. The sketch plan stated that it was to be served by both public sewer and water. The developer subsequently submitted a special exception to the North Manheim Township Zoning Hearing Board for multi-family dwellings in an R2 Zoning District, which was subsequently rejected on July 26, 2015. The Board of Supervisors rejected the sketch plan at their September 10, 2015 meeting based on, among other things, that the development proposed multi-family dwellings in R2 Zoning District without a special exception from the North Manheim Township Zoning Hearing Board. On February 1, 2017, the Schuylkill County Courts upheld the rejection of the special exception by the North Manheim Township Zoning Hearing Board.

On 9/30/2020 the developer submitted a new sketch plan for Chestnut Hill Phase V. The Township rejected the sketch plan at their meeting on January 4, 2021. No further submission has been made to date.

3.3.2 Cressona Mall Connection:

A sanitary sewer system known as the Cressona Mall System consists of 8-inch gravity sewers that services the Cressona Plaza and other commercial development along SR 183, including Burger King, Long John Silvers, CVS and Hoss's Steak & Sea House, up to and including along SR 61, Pennsylvania Eye Consultants, Rockwood Center, Evan's Trucking and other businesses along SR 61. The Seven Hills (Day's Inn) has recently been demolished and removed. There are no residential properties connected to the Cressona Mall System. Sewage generated in the Cressona Mall System is conveyed and treated at the CBA WWTP.

Sands Ford, which is also adjacent to SR 61 was constructed as an extension of the Cressona Mall System to service their new development. This development required the demolition and removal of the Evan's Trucking business. As part of this development, Sands Ford along with the other properties connected to this system, developed an agreement concerning this system. The agreement states the following:

- CBA will provide sewage service to the development.
- 7,500 GPD of reserve capacity will be allocated to the Township.
- CBA will provide direct billing to the customers.
- Ownership of the system will be transferred to CBA for continuous operation, maintenance, and repair.

3.3.3 Other Points of Connection:

There are a few residential properties within the Township that are connected directly to the Cressona sewage collection system not associated with either the Chestnut Hill Connection or Cressona Mall Connection, to include a residential connection on the south side of SR 183, opposite the Chestnut Street Market (formerly Bogg's Market) and two (2) residential connections on River Street, which are located on the west end of River Street, just north of the Borough of Cressona.

3.3.4 CBA Wastewater Treatment Plant:

Currently, the CBA WWTP is operated under NPDES Permit No. PA0024015 effective through December 31, 2024. Based on information presented in CBA's 2023 Chapter 94 Wasteload Management Report, the current permit limits and plant description are as follows:

Flow	720,000 GPD Design Capacity
Influent BOD_5	1,200 lbs BOD_5/day Design Capacity

Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	200 CFU/100 ml Geometric Mean
	2,000 CFU/100 ml Instantaneous Maximum
pH	6.0 S.U. minimum
	9.0 S.U. maximum

The wastewater treatment plant currently consists of an influent pump station with screening, a headworks building, two sequencing batch reactors, a control building, two aerobic digesters, a belt filter press building, and ultraviolet disinfection.

Annual average daily flow for 2023 was 328,000 GPD, while the 3-month maximum daily flow during this period was 469,000 GPD.

Based on the 5-year Measured and Projected Hydraulic and Organic Loads presented in the Chapter 94 Report, the treatment plant has the capacity to handle the maximum projected hydraulic and organic loading rates for at least the next five years.

3.3.5 Future Service Areas and Need for Intermunicipal Agreement:

Based on existing zoning, existing dwelling units, further development and available land areas immediately surrounding the Borough of Cressona, it is estimated that as many as 426 potential EDUs could be connected to the CBA Treatment Plant sometime in the future. It is the intent of NMTA/NMT that all future areas or additional connections of properties within NMT to be serviced by the CBA wastewater treatment system shall be constructed, owned, and maintained by NMTA. An intermunicipal agreement would provide for reservation of sewer capacity; as well as appropriate transportation and treatment costs within the Borough of Cressona. At NMTA's regularly scheduled meetings on February 13, 2024 and again on March 12, 2024, regarding a property along Route 901 in North Manheim Township, it was discussed that CBA has been unwilling to create an intermunicipal agreement with NMTA; and therefore, connecting to the public sewer will be an issue as the property cannot be connected without an agreement in place.

3.4 Pottsville Basin

Wastewater generated in the Pottsville Basin that is serviced by public sewers is conveyed and treated at the Pottsville WWTP, which is owned and operated by the Greater Pottsville Area Sewer Authority (GPASA). Sewers located within the Pottsville Basin are owned and operated by the NMTA and are discharged to GPASA gravity sewer system that drains to the Mount Carbon Pump Station. The sewers service 24 residential properties along Main Street between the Mount Carbon Borough municipal boundary and Calvary Street.

Sewage from this system is conveyed and treated by GPASA under an inter-municipal agreement dated May 17, 1994. A copy of the agreement is provided in Appendix B. The inter-municipal agreement states the following:

- GPASA will provide sewage service to the 24 properties along Main Street.
- GPASA will provide direct billing to the customers. GPASA will remit an Authority Charge amount to NMTA for operation and maintenance of the system.
- GPASA has a right to perform routine and preventative maintenance of the system.

GPASA had been under a Corrective Action Plan (CAP) for sewers draining to the Mount Carbon Pump Station. The intent of the CAP was to investigate the cause of and eliminate wet weather surcharging conditions at the GPASA's Mount Carbon Pump Station. As part of the plan, inflow/infiltration studies were conducted by GPASA within drainage basin to the Mount Carbon Pump Station. As a follow-up to the GPASA study work, the NMTA performed additional closed-circuit television inspection and manhole inspections within their system in June 2017. No sources of inflow/infiltration were identified within NMTA's system during this investigation. Appendix C provides a copy of the response from NMTA to GPASA concerning the investigations in NMTA's system.

3.4.1 GPASA Wastewater Treatment Plant:

The GPASA WWTP is operated under NPDES Permit No. PA0024015. Based on information presented in GPASA's 2023 Chapter 94 Wasteload Management Report, the current permit limits and plant description are as follows:

Flow	8,200,000 GPD Average Monthly
Influent BOD_5	14,635 lbs BOD_5/day
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	200 CFU/100 ml Geometric Mean
	2,000 CFU/100 ml Instantaneous Maximum
Dissolved Oxygen	5.0 mg/L minimum
pH	6.0 S.U. minimum
	9.0 S.U. maximum

The wastewater treatment plant utilizes the secondary treatment activated sludge process, which provides effective and reliable treatment. Wastewater enters a headworks structure that removes large and/or floatable debris through screening and removes sand, cinders, and heavy solids in a grit chamber. Following pre-treatment in the headworks, wastewater is pumped into two (2) primary clarifiers, which are followed by secondary treatment aeration, secondary clarifiers, and finally disinfection.

Annual average monthly flow at the Mount Carbon Pump Station for 2023 was 4,800,000 GPD. The Main Plant's average organic loading was 2,025 lbs BOD_5/day.

3.5 Seiders Hill Basin

Wastewater generated in the Seiders Hill Basin is conveyed and treated at the Seiders Hill WWTP. Both the WWTP and sewage collection and conveyance system were owned and operated by Seiders Hill LLC until July 2020, at which time, they were acquired by the Schuylkill County Municipal Authority (SCMA). Currently, the system serves a total of 123 equivalent dwelling units (EDU's) at the WWTP, of which, 51 EDUs consist of residential properties. The commercial properties in Seiders Hill development include an independent living facility (Luther Ridge at Seiders Hill), a medical office building, and a governmental office building that houses the local USDA, Schuylkill County Co-Op Extension, and the Schuylkill County Conservation District. Seiders Hill LLC also owns property south of the Gordon Nagle Trail, which is not currently sewered and used as youth soccer and softball fields.

On October 25, 2016, the North Manheim Township Zoning Hearing Board granted a special exception for a 48-bed skilled nursing care facility in the development, which is serviced by a commercial grinder pump station that discharges to the existing sewage collection system, and treated at the existing Seiders Hill WWTP. The facility (Green Valley Skilled Nursing and Rehabilitation Center) is located on what is known as Lot 114, which is just south of the governmental building on Red Horse Road. The 48-bed facility went online in 2020 and was assigned 13 EDUs.

3.5.1 Seiders Hill Wastewater Treatment Plant:

Seiders Hill WWTP is operated under NPDES Permit No. PA0063096. The current permit limits and description are as follows:

Flow	30,000 GPD Design Capacity
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	2,000 CFU/100 ml Instantaneous Maximum
Dissolved Oxygen	5.0 mg/L minimum
pH	6.0 S.U. minimum
	9.0 S.U. maximum
Total Residual Chlorine	1.2 mg/L Average Monthly
	2.8 mg/L Instantaneous Maximum

Seiders Hill LLC entered into a Sewer System Acquisition Agreement with both North Manheim Township and the North Manheim Township Authority on January 12, 1993. The agreement stated that Seiders Hill LLC shall construct a sewage collection system and wastewater treatment plant to service the Seiders Hill LLC. The wastewater treatment plant is to be constructed in three (3) phases, with each phase consisting of 30,000 GPD of treatment. The agreement further states that the Township has the right to reserve 13,000 GPD of capacity within the facility and that the collection system and treatment plant can

be dedicated to the North Manheim Township Authority for operation and use if such dedication is mutually agreeable to both parties. The agreement was subsequently amended by addendum on four separate occasions to address successive phases of development. These addendums occurred in 1995, 1997, 2003, and 2005. The existing agreement and subsequent addendums between Seiders Hill LLC and the Township were replaced by an agreement with SCMA.

Schuylkill County Municipal Authority (SCMA) entered into a Contract Operations Agreement with Seiders Hill on April 1, 2018. SCMA acquired the Seider's Hill system on July 1, 2020. The Township, NMTA and Schuylkill County Municipal Authority negotiated a new agreement as a result of the acquisition of the system by SCMA, which was fully approved and executed on November 15, 2023. NMTA retained its 13,000 GPD reserve capacity or other sewer capacity if available at the wastewater treatment plant.

3.6 Orwigsburg Basin

Wastewater generated in the Orwigsburg Basin is currently managed utilizing private on-lot disposal systems; with the exception of two parcels (Tax ID No. 18-06-0090.000 and Tax ID No. 18-06-0028.000). The first property is a 25-unit mobile home park called Sammy's Mobile Home Park. The second property is owned by Blue Mountain School District and is the location of the Blue Mountain High School. Both properties provide sewer service utilizing private wastewater treatment systems. A third property, Roadhouse 61 (formerly Bums Rush), had operated a private wastewater treatment plant but it is understood that business permanently closed and is up for sale. At this time, no public sanitary sewers connected to the Orwigsburg Wastewater Treatment Plant from North Manheim Township.

3.6.1 Sammy's Mobile Home Park Wastewater Treatment Plant:

Sammy's Mobile Home Park WWTP is operated under NPDES Permit No. PA0062634. Based on information previously provided by the operator, the permit limits and description are as follows:

Flow	7,000 GPD Design Capacity
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	200 CFU/100 ml Geometric Mean
	1,000 CFU/100 ml Instantaneous Maximum
pH	6.0 S.U. minimum
	9.0 S.U. maximum
Total Residual Chlorine	1.2 mg/L Average Monthly
	2.8 mg/L Instantaneous Maximum

The wastewater treatment plant is a package sequencing batch reactor (SBR) system by Cromaglass. The SBR is a three-compartment system housed in a lightweight, corrosion-resistant fiberglass tank. Raw wastewater enters the first compartment, which provides separation of inorganic materials and large particles from the waste stream. The second compartment provides biological treatment by mixing the waste stream with bacteria and oxygen to degrade organic matter. The third compartment provides clarification and settling.

3.6.2 Blue Mountain High School Wastewater Treatment Plant:

Blue Mountain High School WWTP is operated under NPDES Permit No. PA0031917. Based on information previously provided by the operator and the Blue Mountain School District Director of Facilities, the permit limits and description are as follows:

Flow	27,000 GPD Design Capacity
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	200 CFU/100 ml Geometric Mean
	2,000 CFU/100 ml Instantaneous Maximum
pH	6.0 S.U. minimum
	9.0 S.U. maximum
Total Residual Chlorine	1.2 mg/L Average Monthly
	2.8 mg/L Instantaneous Maximum

The wastewater treatment plant is a package activated sludge plant with concrete tank construction. The headworks consist of comminutor and a manual bar screen. There is one aeration tank for treatment, one aerobic digester, two clarifiers, and one chlorine contact tank. Sludge is decanted and then hauled offsite for disposal as there are no onsite disposal capabilities. There are two blowers which are controlled by a timer and the blowers also alternate operation.

3.6.3 Roadhouse 61 (formerly Bums Rush) Wastewater Treatment Plant:

It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale.

3.6.4 Orwigsburg Wastewater Treatment Plant:

North Manheim Township Authority entered into an inter-municipal agreement with both the Borough of Orwigsburg and the Municipal Authority of the Borough of Orwigsburg on July 12, 2010, in anticipation of the construction of a sewage collection system for 54 properties within the Orwigsburg Basin. The agreement states that North Manheim Township shall construct a sewage collection system to service these properties and that

the system shall discharge to the Orwigsburg WWTP for treatment. The agreement further states the following:

- NMTA will provide direct billing to the customers. NMTA will remit an Orwigsburg Authority Charge for treatment of sewage from the system.
- Orwigsburg has a right to perform routine sampling of any industrial customers connected to the system.

However, this proposed sewage collection system has not yet been constructed and there is no proposed schedule to do so.

Orwigsburg WWTP is operated under NPDES Permit No. PA0021547. Based on information presented in Orwigsburg's 2022 Chapter 94 Wasteload Management Report, the current permit requirements and description are as follows:

Annual Hydraulic Design Capacity	0.90 MGD Design Capacity
Max Monthly Hydraulic Capacity	1.30 MGD
$CBOD_5$	22 mg/L $CBOD_5$ Average Monthly
Total Suspended Solids	30.0 mg/L Average Monthly
Fecal Coliform	
(5/1 to 9/30)	200/100 ml geometric mean
(10/1 to 4/30)	2,000/100 ml geometric mean
pH	6.0 to 9.0 standard units at all times
	9.0 S.U. maximum
Ammonia-Nitrogen	5.3 mg/L Average Monthly (May 1 – Oct 31)
	15.9 mg/L Average Monthly (Nov 1 – Apr 30)

The wastewater treatment plant consists of a head works chamber (influent screen), three vertical loop reactors (VLR), two 43-foot diameter clarifiers, post-aeration tank, and ultraviolet disinfection. The site contains two main buildings, a control building and blower / generator building. The solids handling process includes three aerobic digesters each with a capacity of approximately 133,000 gallons and six reed beds with a total area of 10,400 square feet. Annual average daily flow for 2022 was 430,000 GPD, while the 3-month maximum daily flow during this period was 710,000 GPD.

3.7 Private On-Lot Disposal Systems

Map 12 identifies those areas of North Manheim Township with public sanitary sewer service. Developed parcels outside the public sanitary sewer service areas must rely on individual on-lot systems for wastewater treatment and disposal.

On-lot wastewater treatment and disposal systems in the Township are privately owned, operated and maintained. The Township SEO is responsible for reviewing permit applications, on-lot

system designs, and investigating reported on-lot system malfunctions. The Township has not established an On-Lot Disposal System (OLDS) Management.

There are approximately 1,090 occupied properties served by individual on-lot sewage disposal systems. Map 14A identifies the developed parcels within the Township that are currently served by on-lot systems. The Township is not aware of the presence of any "wildcat" sewers, borehole disposal systems, or any other unpermitted collection and disposal systems. Most of the on-lot systems within the Township are considered to be operating satisfactorily.

A general assessment of the on-lot treatment and disposal systems was conducted as part of this Plan, in accordance with the procedures provided in the PADEP Guidance Document, "Act 537 Sewage Disposal Needs Identification". This assessment included the following steps:

1. Identification of all developed parcels in the Township served by on-lot wastewater treatment and disposal systems (see Map 14A).

2. Assessment of the general suitability of the soils to support on-lot wastewater treatment and disposal systems (see Map 8).

3. Randomly selected 150 properties utilizing on-lot disposal systems to receive a mail survey (see Map 14B).

    a. Properties were randomly selected based on their tax parcel identification number. All on-lot parcels were organized by their tax parcel identification number and then every sixth parcel was selected to receive a mail survey.
    b. The list of selected parcels was reviewed and approved by the Township Supervisors.
    c. The mail survey was sent to the selected property owners in May 2018. Upon return, completed surveys were logged into a spreadsheet.

4. A door-to-door survey was conducted of on-lot system properties that returned a completed mail survey to verify on-lot system information and look for obvious signs of system operating problems. System Design Engineering staff conducted this survey.

5. Preparation of general inventory of all on-lot systems, based on available information, into one of the following groups, using the definitions given in the PADEP "Act 537 Sewage Disposal Need Identification" Guidance Document: Confirmed Malfunctions, Suspected Malfunctions, Potential Malfunctions, or No Malfunctions (see Appendix E and Section 6.2 for definitions of the groups).

Based on the results of the needs assessment, no areas of the Township were determined as "Needs Areas". Table 3.1 presents a summary of key needs assessment statistics. Appendix F provide available information for each of the individual properties within the on-lot areas. An evaluation of the continued use of on-lot wastewater treatment and disposal systems is conducted in Section 6 of this Plan.

Table 3.1: Summary of Key Needs Assessment Statistics

Statistic	*Result*	*Percentage*
Total Door-to-Door Surveys Completed	150	
No Malfunction	110	73.3%
Potential Malfunction	19	12.7%
Suspected Malfunction	15	10.0%
Confirmed Malfunction	6	4.0%

POPULATION AND WASTEWATER FLOW PROJECTIONS

4.1 Existing Population

North Manheim Township has grown minimally over the past 55 years, experiencing an overall growth of approximately 131% from 1960 through 2015 and an average annual growth rate of only 0.83% between 2000 and 2015. Table 4.1 presents population data for the Township obtained from the United States Census Bureau records. Table 4.1 also lists the average number of new housing units constructed in the Township during the past 35 years. Between 2000 and 2015, an average of 9 new housing units were added each year in the Township. Based on 2010 US Census data, the average occupied household in North Manheim Township contained 2.38 persons. This average household size represents a reduction from the 3.65 persons per household living in the Township during the 1970 census.

Table 4.1: Historical Population Data

Year	*Total Population*	*Annual Average Percent Increase*	*Average Number of New Housing Units Added Per Year*	*Average Number of Persons Per Occupied Household*
1960	2,829	0.12%	-----	-----
1970	3,312	1.59%	-----	3.65
1980	3,574	0.76%	25	3.08
1990	3,404	-0.49%	6	2.78
2000	3,287	-0.35%	12	2.45
2010	3,770	1.38%	24	2.38
*2015**	3,719	-0.27%	-7	2.52

*United States Census Bureau – American Community Survey (ACS) 2011-2015 5-Year Estimate

The decline in the average household size reflects the national trend. As shown in Table 4.1, this downward trend has slowed and seems to have stabilized over the last fifteen years. From the standpoint of this Plan, an average household size of 2.40 will be used for population projection purposes.

Currently, there are approximately 365 residential properties served by either a publicly-owned sanitary sewer system or a privately-owned sanitary sewer system. This equates to a population of 876 persons, or 23.6% of the Township's total population. The remaining properties utilize private on-lot disposals systems.

4.2 Projected Population

Five and 20 year population projections were developed for this Plan. A variety of sources were used to develop these projections, including Township records for approved subdivisions, the Schuylkill County Planning Commission Comprehensive Plan, and U.S. Census Bureau records.

4.2.1 Wasteload Management Projections:

North Manheim Township Authority (NMTA) develops 5-year sewer connection projections as part of its annual PADEP Wasteload Management Reports. NMTA prepares an annual wasteload management supplemental report, titled Contributory Flow to the Borough of Schuylkill Haven Wastewater Treatment Plant, which it then submits to the Borough of Schuylkill Haven for inclusion in their annual Wasteload Management Report. A wasteload management supplemental report is not prepared for Cressona Borough Authority (CBA) since CBA currently owns and operates all of the sewer lines within North Manheim Township.

In the NMTA's 2023 Contributory Flow Report to the Borough of Schuylkill Haven Wastewater Treatment Plant, there were no new sewer extensions constructed and no new sewer connection made to the NMTA system in 2023.

Plans were previously approved for the Villas at Sunnyside which is a development containing 51 town homes. According to the planning module application, the estimated sewage flows for this project would be 20,400gpd (51 EDU's x 400 gallons per EDU = 20,400gpd). Construction of the sanitary sewer lines have been complete for this project and the certificate of flow was issued on July 10, 2007. All fifty-one (51) of the town homes were constructed and connected to the sanitary sewer system. Since then, NMTA has acquired the sewer facilities located in Phases I through VII of the Sunnyside Subdivision. The system consists of approximately 7,613 linear feet of 8-inch PVC, SDR-35 pipe. The Sunnyside sewage system connects to the GPIDC line.

A previously anticipated project is was the development of a tract of land in the vicinity of Greenview Road and West Market Street (S.R. 0443), referred to as the Greenview Village Development. The proposed project was anticipated to consist of 248 townhouses, six 20 bed assisted living facility at 125 gpd/bed and one 140-member church at 3 GPD/seat. The Blue Mountain High School and existing homes along Greenview were also potential connections.

If and when this Project proceeds, the anticipated build out had previously been 255 EDU's for the Greenview Village Development. Various commercial/residential establishments along SR61 could also tie into the collection/ conveyance system to the Borough of Schuylkill Haven if sewer lines were further extended in the future. Preliminary plans for

the Greenview Development had been approved by the Township Planning Commission and Board of Supervisors. However, Final Plans were not submitted for this Project. Other Developer(s) have recently indicated some interest in this project.

4.2.2 Schuylkill County Comprehensive Plan:

Schuylkill County completed a Comprehensive Plan in February 2006. Within the Comprehensive Plan is a Growth Management Plan, which is intended as a guide for future growth and land development within the County. The Growth Management Plan is composed of several elements pertaining to land use, circulation, housing, community facilities, utilities, agricultural and open space conservation, mine reclamation, and environmental protection.

Growth areas are focused in and around existing boroughs, villages and the City of Pottsville and in areas in close proximity to the interchanges along Interstate 81. The Land Use Plan recognizes current and expected development trends in Schuylkill County, indicating that its southern tier, areas near the Interstate 81 Corridor and, in some cases, areas in the northeast portion of the county will continue to be primary growth areas. Growth in the south is focused on existing boroughs and their surrounding areas, including Schuylkill Haven, Cressona, and Orwigsburg. Some growth is planned for areas in townships that already have development concentrations, including North Manheim.

The Plan provides a map of the identified growth areas (Figure 3.3.1: Schuylkill County Comprehensive Plan, Land Use Plan); however, no information is provided as to the amount of growth expected or population changes by municipality within these designated growth areas. Overall, the Plan projects a population decrease for the entire county of 1.9%. The map designates the area along SR61 east of the Borough of Schuylkill Haven as industrial growth and an area to the north and northeast of the Borough of Schuylkill Haven as residential growth. As of May 2024, the 2006 Schuylkill County Comprehensive Plan is shown on their website as the County's latest plan.

4.2.3 Zoning Hearing Board:

The North Manheim Township Zoning Hearing Board granted a special exception for a 48-bed skilled nursing care facility on Lot 114 of the Seiders Hill development on October 25, 2016. Based on the approved Planning Module, this facility was to generate 3,862 gpd. This facility was completed in 2020.

A sketch plan was submitted for a proposed development in Chestnut Hills on June 2, 2015. The development was to be called the Chestnut Hills Apartments and included nine (9) buildings with 76 units. The sketch plan stated that the development would be served by both public sewer and water. The developer sought a special exception to the zoning ordinance that would allow it to build the development as proposed. The North Manheim

Township Zoning Hearing Board rejected the plan on June 28, 2016. The developer appealed the decision; however, the appeal was denied on January 30, 2017. On September 30, 2020, the developer submitted a revised sketch plan proposing single-family dwellings. The Township rejected this sketch plan. No further submission has been received for this project.

4.2.4 Potential Developable Land:

All existing parcels in the Township were assessed for development potential based on current zoning regulations and development patterns. A large portion of the "potentially developable" land is located in areas of the Township where public water and sewage facilities are not available or planned. Zoning in these areas is for Residential Agriculture (RA) or Low Density Residential (R1) development. Zone RA requires a minimum of 5-acre lots but permits two (2) one-acre residential lots to be subdivided from the primary parcel, limiting development within this zone. Zone R1 requires one-acre lots, which limits the need for public sewer service within this zone. These zones are also outside the Schuylkill County Comprehensive Plan's Designated or Future Growth Areas and will likely not be developed to any significant degree during the planning period. The primary zoning district where development may occur is Zone R2 – Medium Density Residential, which allows for lot sizes as small as 0.23-acres for lots serviced by public sewers. A lot-by-lot analysis of the R2 District was therefore undertaken to identify land that has a reasonable chance of being developed. Map No. 15, included in Appendix A, identifies these anticipated growth areas by parcel and drainage basin.

Table 4.2: Potential Developable Land

Parcel	*Total Acres*	*Potential Developable Lots*	*Projected Developable Lots in Next 20-Years (10% unless Previously Planned)*	*Projected New EDUs*
18-06-0060.000	34.34	111	11	11
18-06-0071.000	29.68	96	9	9
18-16-0100.000	19.60	63	6	6
18-06-0086.000	56.69	184	18	18
18-06-0088.000	105.20	343	34	34
18-07-0024.000	34.90	113	11	11
18-07-0023.000	15.80	51	5	5
18-07-0027.000	64.33	209	255	255
18-08-0039.002	10.92	35	3	3
18-08-0032.000	11.36	37	3	3
Total	**382.82**	**1,242**	**355**	**355**

4.3 Projected Wastewater Flows

For the purpose of this Plan, an EDU within North Manheim Township is assumed to generate an average of 400 gpd. Existing system-wide flows per residential EDU vary depending on weather conditions with less flow per EDU during dry weather conditions and higher flow per EDU during wet weather conditions.

The volume of wastewater attributed to a new connection is equal to the amount of wastewater discharged by the customer and the amount of extraneous flow entering the sewer serving the customer. The NMTA also uses 400 gpd/EDU for Wasteload Management Report flow projection purposes.

The 20-year wastewater flow projection for each sewer basin within the Township, shown in Tables 4.3 through 4.7, is taken as the existing wastewater flow plus projected new flow from several sources. These sources include flow from known developments, flow from potential new developments within the existing service area, flow from existing homes currently using on-lot wastewater treatment systems that could connect to the public sewer system, plus a small allocation for miscellaneous infill and changes in land use within the Township. The 5-year annual average flow for the Township is not projected to change since none of the proposed developments are anticipated to be completed within this time frame; however, the 20-year annual average flow is projected to reach 486,837 GPD, as shown in Table 4.8.

Table 4.3: 20-Year Wastewater Flow Projections for the Schuylkill Haven Basin

Source	***Proposed EDUs***	***Existing Flows from 2019 Chapter 94***	***Proposed Additional Flow***	***Total Projected 20-Year Flow***
Naffin Avenue Meter	---	176,568 GPD	---	176,568 GPD
Cleveland Meter	---	15,062 GPD	---	15,062 GPD
Unmetered Flows	5	5,615 GPD	685 GPD (1)	685 GPD
Potential Developable Land	78	0	31,200 GPD	31,200 GPD
Connections of On-Lots (3)	25	0	10,000 GPD	10,000 GPD
Miscellaneous Infill	5	0	2,000 GPD	2,000 GPD
TOTALS	**113**	**197,245 GPD**	**43,885 GPD**	**235,515 GPD**

Notes:

(1) Flow is equal to five (5) unmetered connections at 137 GPD (50,000 GPY).

(2) Existing flows from the Villas at Sunnyside is included in the Naffin Avenue metered flows.

(3) Assumed number of properties that are serviced by on-lot disposal systems that can be reasonably connected to an existing system or an extension of an existing system.

Table 4.4: 20-Year Wastewater Flow Projections for the Cressona Basin

Source	*Proposed EDUs*	*Existing Flows (400 gpd/EDU)*	*Proposed Additional Flow*	*Total Projected 20-Year Flow*
Unmetered Flows	---	51,600 GPD	0 GPD	51,600 GPD
Proposed Developments	---	0	0 GPD	0 GPD
Potential Developable Land	6	0	2,400 GPD	2,400 GPD
Connections of On-Lots (1)	57	0	22,800 GPD	22,800 GPD
Miscellaneous Infill	---	0	0 GPD	0 GPD
TOTALS	**31**	**51,600 GPD**	**25,200 GPD**	**76,800 GPD**

Notes:

(1) Assumed 25 properties along Elmer Avenue, Donna Circle, and Florence Circle and 32 properties along River Street, SR901, Mengle Street and Woodland Drive that are serviced by on-lot disposal systems that can be reasonably connected to the existing system by an extension.

Table 4.5: 20-Year Wastewater Flow Projections for the Pottsville Basin

Source	*Proposed EDUs*	*Existing Flows (400 gpd/EDU)*	*Proposed Additional Flow*	*Total Projected 20-Year Flow*
Unmetered Flows	---	9,600 GPD	0 GPD	9,600 GPD
Proposed Developments	---	0	0 GPD	0 GPD
Potential Developable Land	---	0	0 GPD	0 GPD
Connections of On-Lots (1)	7	0	2,800 GPD	2,800 GPD
Miscellaneous Infill	---	0	0 GPD	0 GPD
TOTALS	**7**	**9,600 GPD**	**2,800 GPD**	**12,400 GPD**

Notes:

(2) Assumed properties along Hillside Road that are serviced by on-lot disposal systems that can be reasonably connected to the existing system by an extension.

Table 4.6: 20-Year Wastewater Flow Projections for the Seiders Hill Basin

Source	*Proposed EDUs*	*Existing Flows (400 gpd/EDU)*	*Proposed Additional Flow*	*Total Projected 20-Year Flow*
Metered Flows	---	19,700 GPD	0 GPD	19,700 GPD
Proposed Developments (1)	11	0 GPD	3,862 GPD	4,514 GPD
Potential Developable Land	---	0 GPD	0 GPD	0 GPD
Connections of On-Lots (2)	23	0 GPD	9,200 GPD	9,200 GPD
Miscellaneous Infill	---	0 GPD	0 GPD	0 GPD
TOTALS	**31**	**19,700 GPD**	**13,062 GPD**	**33,414 GPD**

Notes:

(1) Proposed flow is equal to 2 residential lots at 326 gpd plus 3,862 gpd allocation for Lot 114, as presented in Seiders Hill Semi-Annual Reports.

(2) Assumed properties along Glenworth Road that are serviced by on-lot disposal systems that can be reasonably connected to the existing system by an extension.

Table 4.7: 20-Year Wastewater Flow Projections for the Orwigsburg Basin

Source	*Proposed EDUs*	*Existing Flows (400 gpd/EDU)*	*Proposed Additional Flow*	*Total Projected 20-Year Flow*
Metered or Unmetered Flows	---	---	---	0 GPD
Proposed Developments	255	0	102,000 GPD	102,000 GPD
Potential Developable Land	16	0	6,400 GPD	6,400 GPD
Connections of On-Lots (1)	---	0	0 GPD	0 GPD
Miscellaneous Infill	---	0	0 GPD	0 GPD
TOTALS	**271**	**0 GPD**	**108,400 GPD**	**108,400 GPD**

Notes:

(1) Assumed properties along Hillside Road that are serviced by on-lot disposal systems that can be reasonably connected to the existing system by an extension.

Table 4.8: Summary of Wastewater Flow Projections

Source	*Existing Flows*	*Projected 5-Year Flows*	*Projected 20-Year Flows*
Schuylkill Haven Basin	197,245 GPD	0 GPD	235,515 GPD
Cressona Basin	51,600 GPD	0 GPD	76,800 GPD
Pottsville Basin	9,600 GPD	2,800 GPD	12,400 GPD
Seiders Hill Basin	19,700 GPD	3,862 GPD	33,414 GPD
Orwigsburg Basin	0 GPD	0 GPD	108,400 GPD
TOTALS	**285,900 GPD**	**6,662 GPD**	**486,837 GPD**

WASTEWATER MANAGEMENT ALTERNATIVES

5.1 Identified Needs

Population and wastewater flow projections were developed in Chapter 4 for a 20-year planning period. Projections developed in Chapter 4 for those portions of North Manheim Township tributary to the each of the WWTPs indicates the existing facilities have sufficient capacity to handle the Township's projected growth, with the exception of the current Seiders Hill WWTP. However, this facility is permitted for up to 90,000 gals/day if two (2) additional treatment units are constructed.

Table 5.1: Comparison of Flow Projections to Current Permitted Capacity (GPD)

Conditions	*SHB WWTP*	*CBA WWTP*	*GPASA WWTP*	*Seiders Hill WWTP* [1]	*Orwigsburg WWTP*
Current Conditions					
Annual Average Flow	963,000	339,000	4,870,000	11,200	518,000
Maximum 3-Month Flow	1,170,000	428,000	5,950,000	15,800 [2]	667,000
Projected Needs					
Annual Average Flow [3]	43,885	25,200	2,800	13,062	108,400
Maximum 3-Month Flow [4]	53,318	31,816	3,420	18,426	139,580
Projected Conditions					
Annual Average Flow	1,006,885	364,200	4,872,800	24,264	626,400
Maximum 3-Month Flow	1,223,318	459,816	5,953,420	34,226	806,580
Current Permit Conditions					
Permitted Flow	2,800,000	720,000	8,200,000	30,000	1,300,000
Projected Shortfall [5]					
Flow Above Permitted Flow	0	0	0	4,226	0

(1) *Seiders Hill WWTP data based on 2019 DMR data. No DMRs have been received by NMTA since SCMA began operating, then acquiring the Seiders Hill WWTP facilities.*

(2) *Per agreement, capacity is based on Maximum Monthly Flow rather than 3-month Maximum Monthly Flow.*

(3) *Projected Needs (Annual Average Flow) is as presented in Section 4.*

(4) *Projected Needs (Maximum 3-Month Flow) = Projected Needs (Annual Average Flow) times Current Conditions (Maximum 3-Month Flow) divided by Current Conditions (Annual Average Flow).*

(5) *Projected Shortfall = Projected Conditions (Maximum 3-Month Flow) minus Current Permit Conditions.*

If the existing Seiders Hill WWTP is expanded with a second 30,000 GPD unit, the Township's sewage needs can be handled with existing facilities. The Township may need to secure additional treatment capacity in other area municipal sewer systems through amendments to existing inter-municipal agreements if any of the collection system alternatives are implemented.

Although more than 400 occupied parcels in the Township are served by public sewers, the majority of the developed properties in the Township rely on individual on-lot wastewater treatment and disposal systems. The assessment of these systems conducted as part of this Plan found that the majority of the systems do not appear to have operating problems.

5.2 Potential Wastewater Treatment Alternatives

Rules and regulations pertaining to the content of Act 537 Plans are contained in Title 25 Pennsylvania Code Chapter 71. These rules and regulations require that an Act 537 Plan present and evaluate alternatives for sewage service. PADEP's guidelines for the preparation of Act 537 Plans indicate that alternatives for sewage service should consider use of the following:

- Conventional collection, conveyance and treatment systems;
- Individual sewage disposal systems;
- Small flow treatment facilities;
- Community wastewater treatment facilities;
- Holding tanks;
- Non-structural comprehensive planning activities;
- Sewage management programs; and
- No-action alternative.

The potential uses of each of these methods to meet North Manheim Township's projected wastewater treatment and disposal needs are developed in the remainder of this Chapter.

5.2.1 Conventional Treatment Systems:

As described in Section 3, North Manheim Township utilizes wastewater treatment services of the Schuylkill Haven WWTP, Cressona Borough Authority WWTP, ~~and the~~ Greater Pottsville Area Sewer Authority WWTP and Seiders Hill WWTP (SCMA) for different portions of the Township. There are also three privately owned WWTPs which provide sewer service to properties within the Township: Sammy's Mobile Home Park, Blue Mountain High School and until recently, Roadhouse 61 (formerly Bums Rush). It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale. Given the condition of the existing treatment facilities, the infrastructure in place to convey wastewater to these WWTPs and the existing commitments to provide sanitary sewer service, continued use of these WWTPs to provide wastewater treatment is a most practical

alternative for the existing sanitary sewer service areas. Potential service areas expansions, as identified in Section 5.3 below, are proposed are based on utilization of these WWTPs.

5.2.2 Individual Sewage Disposal Systems:

Developed parcels outside the public sewer service area rely on individual on-lot systems for wastewater treatment and disposal. Based on the assessment conducted as part of this Plan Update, there are approximately 1,000 occupied and individually owned and operated on-lot wastewater treatment systems serving occupied parcels in the Township. Map No. 14A highlights a cross-section of the parcels that were inspected currently using on-lot systems for wastewater treatment and disposal.

Map No. 8 identifies the soil suitability for on-lot disposal systems. The soils present on the majority of the parcels outside the public sewered area are classified as either marginally suitable or unsuitable for on-lot disposal. Approximately 60% of the occupied parcels in the Township continue to rely on on-lot systems for wastewater treatment and disposal. Individual property owners are responsible for the proper operation and maintenance of their individual on-lot system. North Manheim Township does not have an on-lot sewage management program that establishes minimum maintenance requirements. Developing an on-lot management program would allow for continued use of on-lot wastewater treatment and disposal systems located outside the public sewered areas and is selected as an alternative for further consideration.

5.2.3 Small Flow Treatment Facilities:

There are currently no small flow treatment systems (flows up to 2,000 gpd or less) in North Manheim Township; however, there is one property on a holding tank (included in 5.2.5 below) that had proposed a small flow treatment system:

- Tax Parcel: 18-10-0018.000
  Address: 12 Green Tree Drive
  Schuylkill Haven, PA 17972

The Township considers use of these systems to serve new development outside the public sewer service area or as a replacement system for a failed or group of failed on-lot wastewater systems on a case-by-case basis and the person(s) proposing the facility must perform the necessary soil, site, and hydrogeologic evaluations to the satisfaction of the Township and PADEP.

5.2.4 Community Wastewater Treatment Facilities:

There is currently no community wastewater treatment facility (wastewater treatment system serving more than one home that relies on land disposal of the treated wastewater) located within the Township.- The soils and topography outside the majority of the public

sewer service area appear to be unsuitable or marginally suitable for community wastewater treatment facilities. Use of a community wastewater treatment facility might be considered by the Township if public sanitary sewer service was determined not to be available and the soils conditions were determined suitable, after conducting site soil investigations and a preliminary hydrogeological evaluation, to support such a system.

The Township Subdivision and Land Development Ordinance does not specifically ~~allow or~~ prohibit the use of a community wastewater treatment facility. Proposals for small flow treatment systems might be considered on a case-by-case basis.

5.2.5 Holding Tanks:

Four properties in North Manheim Township are currently served by sewage holding tanks. These properties are:

- Address: King Solomon's Vineyard
  81 Hemlock Drive
  Pottsville, PA 17901

- Address: 365 Route 61
  Schuylkilll Haven, Pa 17972

- Address: 12 Greentree Drive
  Schuylkill Haven, PA 17972

- Address: 873 Garfield Avenue
  Pottsville, PA. 17901

The property owners are responsible for the proper operation of the holding tanks. The property owners must also have a private hauler under contract to properly dispose of the septage when the tank is full. Disposal of the holding tank contents may only be made at sites approved by PADEP. An annual inspection of the tanks are performed by the Township's Sewage Enforcement Officer.

North Manheim Township executed a holding tank ordinance, Ordinance 117, in 2010. A copy of Ordinance 117 is included in Appendix D. The Ordinance addresses the requirements pertaining to holding tanks that are listed in Chapter 71.63 of the Pennsylvania Code Title 25 - Environmental Protection, effective October 2, 1999.

5.2.6 Sewage Management Programs:

Sewage management programs are regulatory programs enacted by municipalities for assuring the operation and maintenance needs, and thereby the long-term performance, of

on-lot sewage disposal systems and other sewage facilities. Chapter 71 (pertaining to Administration of the Sewage Facilities Planning Program), Section 71.71 requires municipalities to establish sewage management programs as part of their official plans, or through revisions to their official plans as a method of assuring the proper operation and maintenance of sewage facilities.

Most sewage management programs require at least the minimum standards for on-lot system maintenance that are listed in Chapter 71, Section 71.73. These minimum standards include the following:

- Removal of septage from the treatment tanks once every three years or following a tank inspection that reveals the need for septage removal (when the tank is determined to be more than 1/3 full);
- Maintenance of surface contouring around the system to divert storm water and to protect the system from damage;
- Water conservation requirements;
- Requirements for O&M of electrical, mechanical, and/or chemical components of sewage facilities; collection and conveyance piping, pressure lines and manholes; alarm and flow recorder devices; pumps; disinfection equipment; and related safety items;
- Provisions for septage pumping and disposal; and
- Requirements for holding tank maintenance.

However, many sewage management programs also go beyond these minimum standards by including provisions that help to carry out the minimum requirements. For example, a sewage management program may call for any of the following:

- Education of residents, particularly property owners served by on-lot systems, about the workings and needs of on-lot systems and sewage management program requirements;
- Registration or licensing of septage pumpers and/or other service providers;
- Observations by septage pumpers or other agents, or inspections by the Sewage Enforcement Officer (SEO) regarding system integrity and performance;
- Report of activities and/or findings by septage pumpers or other service providers;
- Standard procedures for such activities as treatment tank pumping and system observation or inspection;
- Requirements for proper disposal of septage; and/or
- User fees or permits and associated fees for activities, such as treatment tank pumping, to help defray the administrative costs.

Public sewers are not planned for most of the Township that is currently served by on-lot disposal systems. Therefore, it is important that the systems are properly operated and maintained. The Township currently does not have a sewage management program for on-lot disposal systems. While a sewage management program was proposed in the 1992 Seiders Hill Land Development Act 537 Plan – Section 3A, this proposed program was not acted on by the Township. The Township should consider a program to provide a mechanism by which the operation and maintenance of private on-lot disposal systems are regulated and monitored.

5.2.7 Non-Structural Comprehensive Planning Activities:

Zoning and development ordinances have long been in place in North Manheim Township to assist in promoting sound economic and consistent land development. Map No. 10 presents a copy of the Township's current zoning map. The population and wastewater flow projections developed for this Update are based on existing zoning regulations. The Township retains a Code Enforcement Officer to oversee implementation and enforcement of its zoning and land development ordinances. The Township SEO is charged with enforcing compliance with the Township's on-lot sewage disposal regulations.

The majority of the properties serviced by on-lot wastewater systems are located in either the Medium Density Residential (R2) or in the Residential - Agriculture (RA) zoning districts outside the public sewer service area. Other on-lot systems are located in the Low Density Residential (R1) and General Commercial (C2) and zoning districts. The RA and R1 zoning district generally account for low-density rural land uses. Lots located within the RA zoning district must be a minimum of 5 acres and the R1 and R2 zoning districts must be a minimum of 1 acre (when served by on-lot systems). A large portion of these districts are located outside of the public sewer service area on land where public water and sewer service are not scheduled. It is the intent of the Township for on-lot sewage disposal systems to continue to serve those portions of the Township outside the established public sewer service area.

No other non-structural comprehensive planning alternatives to meet the sewage treatment and disposal needs identified in this Plan are needed, except those identified in Section 5.2.6 regarding sewage management programs.

5.2.8 No-Action Alternative:

Failure of North Manheim Township to provide adequate wastewater treatment would have negative long-term impacts on development. Failing on-lot septic systems may lead to the degradations of drinking water resources and are a significant health risk to the residents of the area of these failures. Due to the negative impacts of the no-action alternative, it is eliminated from further considerations as part of this Plan.

5.3 Completed Wastewater Conveyance Improvements

Continued use of the previously identified WWTPs to meet the wastewater treatment and disposal needs for the existing public sewer areas of the Township required certain repairs and improvements to the North Manheim Township Authority's sanitary sewer system.

5.3.1 Authority Maintenance Program:

In June 2016, the North Manheim Township Authority approved an inflow/infiltration Maintenance Program. The Program solely looked at the lines and manholes owned and operated by the Authority. The Program divided NMTA's system into six distinct areas that would include closed-circuit television inspection, manhole inspections and rehabilitation if needed in each of the areas.

The first area inspected was the Greater Pottsville Industrial Development Corporation (GPIDC) interceptor sewer. The 2016 inspection revealed a number of sections of sewer mains that were in poor condition, and it was recommended that this interceptor sewer be rehabilitated because it is the primary interceptor that conveys three of the Authority's largest customers: Lehigh Valley Dairy, Cardinal Systems, and Penn State University Schuylkill. Rehabilitation of this interceptor using trenchless technologies was identified as the most viable option.

The Authority submitted grant applications in 2016 and 2018 to the Pennsylvania DCED under their Small Water and Sewer Grant Program to perform closed-circuit television inspection, manhole inspections and rehabilitation of the GPIDC/Collection/Interceptor System. The Authority was unsuccessful in obtaining a grant in 2016 or 2018. The Authority moved forward with this work utilizing existing funds to complete the project in 2019. The project consisted of 4,111 linear feet of sewer main cleaning, 7,093 linear feet of 8-inch diameter cured-in-place liner, 241 linear feet of 12-inch diameter cured-in-place liner, 1 12-inch sectional liner, 4 lateral replacements, 1 lateral connection liner, 398 vertical feet of cementitious manhole liner, 29 manhole chimney liners, and 13 manhole lid inserts. The project was completed at a cost of $406,457. Refer to Map No. 16, included in Appendix A, for a graphical depiction of the lines and manholes that were rehabilitated.

The second area inspected was the Long Run Interceptor/Collection System Inspection Project. The total awarded project cost was $18,213.50. The contractor for this work started the sewer main and manhole inspection work on May 15, 2023. The work was completed October 26, 2023. Data was submitted to the Authority by the Contractor on November 6, 2023. The Authority Engineer provided a summary memo with priority and maintenance items at the NMTA's November 14, 2023 meeting. Quotes were then requested from three contractors. All the quotes exceeded the bidding limit ($23,200). The NMTA then authorized the Authority Engineer to prepare formal bid documents. Bids were received by

the NMTA at its meeting on May 14, 2024. The work included installation of manhole frame bolts, raising buried manholes, manhole bench and chimney repair, and repair of laterals. The work was completed in September 2024 for a total amount of $57,197.

5.3.2 Pennsylvania State University Maintenance Program:

The Pennsylvania State University - Schuylkill Campus first conducted TV inspection followed by sewer rehabilitation, and I&I work on its privately owned sewer system. The work involved sewer CIP lining, manhole repairs and certain identified sewer line replacements. The work began the week of March 6, 2023 and was completed by September 7, 2023. Afterwards, PSU performed post-construction flow monitoring beginning on February 15, 2024, which showed only a small increase in flow during rain events.

5.4 Potential Wastewater Conveyance Alternatives

Collection system expansion alternatives from previous sewage facility planning identified in Section 2 of this Plan that have not yet been constructed are outlined below. In addition, expansion of sewage collection systems to address sewage needs identified in the Sewage Needs Survey are also identified.

5.4.1 Pottsville Basin –Extension No. 1 (Hillside Drive / Cressona Road):

In 2016 and 2018, the Authority was contacted by the Greater Pottsville Area Sewer Authority to submit a joint application to the Pennsylvania DCED under their Small Water and Sewer Grant Program for a sewer extension. The joint application included the City of Pottsville, Norwegian Township, and North Manheim Township. The extension would be from the City of Pottsville limits on Cressona Road and extend along Hillside Road. The extension would convey sewage to the Greater Pottsville Area Sewer Authority. Refer to Map No. 17A in Appendix A for a graphical representation of this alternative. The joint application was unsuccessful in 2016 and 2018. Even though joint application was not funded by DCED, this extension is a viable option for servicing this area of the Township in the future.

5.4.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road):

The 1992 Seiders Hill Land Development Act 537 Plan – Section 3A states that the Seiders Hill development was estimated to contain 236 Equivalent Dwelling Units with a total average daily sewage flow of 77,000 GPD. The proposed WWTP would have a total capacity of 90,000 GPD, with 13,000 GPD or approximately 40 EDUs reserved for Township use. The WWTP would be constructed in 30,000 GPD modular units and be expanded in accordance with an agreement between the developer and the Township.

The 1992 Seiders Hill Land Development Act 537 Plan – Section 3A provided minimal information concerning the where potential future sewer extensions would be located; however, the Plan did state that properties along Glenworth Road, SPCA Road (Twp Hwy 696), and Cressona Road could potentially be serviced. Map No. 17B in Appendix A provides a layout that services the properties along these three (3) roads.

5.4.3 Cressona Basin –Extension No. 1 (Gordon Nagle Trail / Woodlawn Dr.):

The 1970 Water & Sewerage Feasibility Study and Act 537 Planning identified a sanitary sewer extension along River Road, Gordon Nagle Trail (SR 901), and Woodland Drive. The proposed extension was planned with a sewage pump station along the Gordon Nagle Trail at the West Branch of the Schuylkill River.

The 1973 Sanitary Sewer Extension Study also identified this area for a potential sanitary sewer extension; however, the 1973 extension did not include a pump station. While it did not say how the sanitary sewers would cross the West Branch of the Schuylkill River, it is assumed that either a gravity sewer line attached to the existing SR901 bridge or a siphon would be utilized. Map No. 17C in Appendix A provides a graphical depiction of the sanitary sewer service area identified in the 1973 Sanitary Sewer Extension Study.

5.4.4 Cressona Basin –Extension No. 2 (Elmer Avenue / Morningside Drive):

The 1970 Water and Sewerage Feasibility Study identified the area bounded by Chestnut Street (SR 183) to the north and west, Morningside Drive to the south, and the Cressona Borough to the east for sewerage. The Act 537 Planning and Sewage Feasibility Report: 1975 Revision (1975 Revision) refined the service area to include the properties along Elmer Avenue, Donna Circle, Florence Circle, and a cluster of properties along Morningside Drive. This area was never included in any future Act 537 Plan as an area for potential sewerage. Map No. 17D in Appendix A provides a graphical depiction of the sanitary sewer extension that would service this area.

5.4.5 Schuylkill Haven Basin –Extension No. 1 (Long Run Road):

The 1990 Sewage Feasibility Study (1990 Study) identified the need for the sewage service along Long Run Road (SR 443). The 1990 Study assumed servicing 86 properties along the entire Long Run Road corridor would be connected to a gravity sanitary sewer system that would convey sewage to Schuylkill Haven borough for treatment at the Borough's WWTP. The 1990 Study also assumed that gravity sewer service would be extended into Wayne Township to service properties in the Friedensburg area to address sewage needs in Wayne Township.

The 1993 Act 537 Plan Special Study – Route 443 Corridor, Hilltop Mobile Home Park, and Main Street Areas (1993 Plan) identified the immediate need for the sewage service along Long Run Road (SR 443) to service 47 properties to the south of Long Run Road

that had malfunctioning on-lot disposal systems. The 1993 Plan also stated while the extension of sewers to service the 47 properties provides a solution to address the immediate problem, it also accommodates a longer-range, regional solution to sewer service as the proposed gravity mains are sufficiently sized to accommodate the remaining properties in North Manheim Township; as well as properties in Wayne Township.

Map No. 17E provides a graphical depiction of sanitary sewer extensions within North Manheim Township along Long Run Road that were identified in the 1990 Study but not constructed under the 1993 Plan. These extensions provide sewage service to the properties on the north side of Long Run Road.

5.4.6 Schuylkill Haven Basin –Extension No. 2 (Haven – Fairlawn):

The 1970 Water and Sewerage Feasibility Study (1970 Study) and Act 537 Planning and Sewage Feasibility Report: 1975 Revision (1975 Revision) identified the Haven-Fairlawn area as an area for potential sanitary sewer service. In the 1975 Revision, it is stated that a meeting was held with the Schuylkill County Sanitarians in August 1974 and that they identified this area as an area that public sewerage should at least be considered. The 1975 Revision calculated this area as one of the highest annual costs per connection; thus, it was never constructed. This area was never included in any future Act 537 Plan as an area for potential sewerage. Map No. 17F provides a graphical depiction of the sanitary sewer extension that would service the Haven-Fairlawn area. A portion of this area is to be serviced in the near future. Specifically, the area along a portion of Garfield Avenue to its intersection with SR 2006, and in the vicinity of Lake Street, Dove Street, 2nd Street, and 4th Street. This project was part of a separate 3M module submission. NMTA has received a PENNVEST loan offer for the project as mentioned earlier in Section 3.2.5 of this report. The project is expected to proceed shortly in 2025.

5.4.7 Schuylkill Haven Basin –Extension No. 3 (Spring Street):

During the Sewer Needs Identification Survey, the property owner expressed an interest in extending sanitary sewer service up Spring Street to service two rental properties at the end of the street. This area was never included in any Act 537 Plan as an area for potential sewerage. Map No. 17G provides a graphical depiction of the sanitary sewer extension that would service the Spring Street area.

5.4.8 Schuylkill Haven Basin –Extension No. 4 (Manheim Road):

During the Act 537 Plan development, the Township expressed an interest in extending sanitary sewer service along Manheim Road to service three properties north of Sunnyside Drive that are currently serviced by on-lot sewage system. This area was never included in any Act 537 Plan as an area for potential sewerage. Map No. 17H provides a graphical depiction of the sanitary sewer extension that would service the Spring Street area. These

three properties are to be included as part of the Schuylkill Haven Basin – extension No. 2 (Haven – Fairlawn) project described in Section 5.4.6 above.

5.4.9 Schuylkill Haven Basin –Extension No. 5 (Adamsdale Road/Memorial Drive):

During the Act 537 Plan development, the Township expressed an interest in extending sanitary sewer service along Adamsdale Road and Memorial Drive to service twenty-seven (27) properties along SR61, Memorial Drive, and Adamsdale Road that are currently serviced by on-lot sewage system. This area was never included in any Act 537 Plan as an area for potential sewerage. Map No. 17I provides a graphical depiction of the sanitary sewer extension that would service the Spring Street area.

5.4.10 Orwigsburg Basin –Extension No. 1A (Renningers to Schuylkill Haven):

The 1969 Preliminary Draft Submission Water Sewerage Feasibility Study identified the Renninger's area as a potential area for sanitary sewer service. In the 1970 Water and Sewerage Feasibility Study and Act 537 Planning and Sewage Feasibility Report: 1975 Revision (1975 Revision) the identified area for potential sanitary sewer service was expanded to both the Renninger's area and Adamsdale area. In approximately 2008, Metropolitan Development Group proposed to construct a 54-lot residential development along Greenview Drive in the Township (Greenview Development). As part of the Greenview Development, it was determined that it would be appropriate to provide sanitary sewer service to the Renninger's area. At that time, connection to both the Schuylkill Haven and Orwigsburg systems were discussed and it was determined that connection to the Schuylkill Haven system was preferred. A preliminary layout for a pump station and force main was developed; however, economic factors at the time caused the project to be placed on hold. Map No. 17J provides a graphical depiction of the sanitary sewer extension that would service the Renninger's area, including the Greenview Development.

5.4.11 Orwigsburg Basin –Extension No. 1B (Renningers / Adamsdale to Schuylkill Haven):

This alternative combines the proposed facilities identified in Subparagraph 5.4.10 above with sanitary sewer service for the Adamsdale area. A pump station in the Adamsdale area would convey sewage to a gravity manhole constructed as part of the Renninger's area system at the intersection SR 61 and Greenview Drive. Map No. 17K provides a graphical depiction of the sanitary sewer extension that would service the combined Renninger's – Adamsdale area that would convey sewage to the Schuylkill Haven WWTP.

5.4.12 Orwigsburg Basin –Extension No. 2A (Renningers to Orwigsburg):

As previously stated, the 1969 Preliminary Draft Submission Water Sewerage Feasibility Study identified the Renninger's area as a potential area for sanitary sewer service. This document included a map that showed the proposed sewer system being conveyed to the Orwigsburg WWTP through the Schuylkill Country Club property. The location of the

proposed force main is not feasible because of the terrain, number of easements from private property owners, and the disruption to the golf course. It is more practical to connect to an existing manhole in the Orwigsburg collection system along SR 443. Map No. 17L provides a graphical depiction of the sanitary sewer extension that would service the Renninger's area and convey sewage to an existing Orwigsburg manhole in SR 443.

5.4.13 Orwigsburg Basin –Extension No. 2B (Adamsdale to Orwigsburg):

The 1975 Revision identified multiple alternatives for potentially providing sanitary sewer service to the Rennginer's and Adamsdale areas. One of the alternatives was the construction of a collection system for only the Adamsdale area, where a pump station would be located that would pump directly to the Orwigsburg WWTP. Map No. 17M provides a graphical depiction of this alternative.

5.4.14 Orwigsburg Basin –Extension No. 2C (Renningers / Adamsdale to Orwigsburg):

As previously stated, the 1970 Study and the 1975 Revision identified the Renninger's - Adamsdale area as an area for potential sanitary sewer service. In the 1970 Study, a map shows the Renninger's area being conveyed to the Adamsdale area, where a pump station would be located that would pump directly to the Orwigsburg WWTP. In the 1975 Revision, a map shows the Renninger's area being conveyed to the Adamsdale area and into the Borough of Landingville, where a new wastewater treatment plant would be constructed. It was stated in the 1975 Revision that they also considered the construction of a pump station in the Adamsdale area and conveying sewage to the Orwigsburg WWTP for treatment. Map No. 17N provides a graphical depiction of the sanitary sewer extension that would service the Renninger's - Adamsdale area and convey sewage to the Orwigsburg WWTP. In lieu of conveying sewage from the Renninger's area to Adamsdale, only to convey it again to the Orwigsburg WWTP, the proposed pump station in the Renninger's area convey sewage to the Orwigsburg Borough collection system at an existing manhole in SR 443, while a pump station servicing the Adamsdale area would convey sewage directly to the Orwigsburg WWTP.

EVALUATION OF ALTERNATIVES

6.1 Consistency Analysis

Wastewater management alternatives developed as part of the Act 537 planning process must be evaluated in terms of their relationship to the goals and objectives of various planning, environmental, and natural resource laws and policies of the Commonwealth of Pennsylvania. Chapter 71.21(a)(5) of PADEP's regulations requires that the Act 537 Plan address the consistency of each wastewater management alternative with twelve of the Commonwealth's goals and policies. If a recommended alternative is determined to conflict with or is inconsistent with one of the goals and objectives, the conflict and inconsistencies must be resolved before PADEP approves the alternative.

The following sections discuss the 12 evaluation categories and the consistency analysis. Consistency analyses were performed only for those components of the alternatives within North Manheim Township. Based on the following analysis, the alternatives are consistent with all criteria.

6.1.1 Comprehensive Water Quality Management Plan (COWAMP):

Sections 4 and 5 of the Clean Streams Law require that consideration be given to water quality management and pollution control in a watershed as a whole. Section 208 of the Clean Water Act calls for the development of plans that identify the facilities necessary to meet anticipated municipal and industrial waste treatment needs. Comprehensive Water Quality Management Plans have been developed under Sections 4 and 5 of the Clean Streams Law and 208 of the Clean Water Act for areas in Pennsylvania. The COWAMP for North Manheim Township, COWAMP/208 Water Quality Management Special Report on Plans and Choices: Upper Schuylkill/Mahoning Sub-Basin Supplement was not readily available. Due to the age of the original COWAMP from the late 1970s and the availability of subsequent sewage facilities planning, it was decided that review of the document was not necessary since any recommendations it contained would be out of date.

6.1.2 Municipal Wasteload Management Plans:

North Manheim Township annually submits a Chapter 94 Municipal Wasteload Management Tributary Report to the Borough of Schuylkill Haven to be included as an appendix to their Chapter 94 Wasteload Management Report to PADEP for their WWTP. The 2023 Chapter 94 Tributary Report projects future flows at 250 gpd per EDU. The

population and wastewater flow projections used in this Plan are consistent with those included in the Township's 2023 Chapter 94 report. Continued reliance on the Borough of Schuylkill Haven WWTP for the sewered portion of the North Manheim Township is consistent with the recommendations and findings of the Chapter 94 Report.

Based on available information from the Borough of Schuylkill Haven (BOSH)/Schuylkill Haven Municipal Authority (SHMA), Cressona Borough Authority (CBA), Greater Pottsville Area Sewer Authority (GPASA), and the Schuylkill County Municipal Authority (SCMA), the following provides information on the availability of sewage capacity at each of potential treatment facilities for alternatives identified in this plan.

Borough of Schuylkill Haven

Annual average daily flow for 2023 was 0.925 MGD, while the 3-month maximum daily flow during this period was 1.177 MGD. The five-year projected annual average flow for 2028 is 1.0009 MGD with a project 3-month maximum daily flow of 1.221 MGD. Per the 2023 Chapter 94 Report, there is no hydraulic overload projected over the next five years. The Borough of Schuylkill Haven is willing to accept flows from North Manheim Township under terms of the existing inter-municipal agreement.

Cressona Borough Authority

Annual average daily flow for 2023 was 0.328 MGD, while the 3-month maximum daily flow during this period was 0.469 MGD. The five-year projected flow for 2028 is 0.3502 MGD with a project 3-month maximum daily flow of 0.436 MGD. Per the 2023 Chapter 94 Report, there is no hydraulic overload projected over the next five years. The Cressona Borough is willing to accept existing flows from North Manheim Township under terms of the existing XAR agreement and Cressona Mall agreement.

Greater Pottsville Area Sewer Authority

Annual monthly average flow for 2023 at the main plant was 3.74 MGD. The five-year projected annual daily flow rates are well below the plant's current permitted capacity of 8.2 MGD. Per the 2023 Chapter 94 Report, there is no hydraulic overload projected over the next five years. The Greater Pottsville Area Sewer Authority is willing to accept flows from North Manheim Township under terms of the existing inter-municipal agreement.

Schuylkill County Municipal Authority

The Schuylkill County Municipal Authority (SCMA) acquired the Seiders Hill WWTP system from Seiders Hill, LLC on July 1, 2020 and serves as the current owner and operator of the entire collection system, pumping station and treatment plant. Prior to 2020, the system was a private system, and a Chapter 94 Wasteload Management Report had not been required for this facility. Under the terms of the previous agreement, the Township

had a reserve capacity of 13,000 GPD. The current agreement NMTA has with SCMA retained this reserve capacity.

6.1.3 Title II of the Clean Water Act:

Title II of the Clean Water Act requires the development and implementation of wastewater treatment management plans and practices which provide for the application of the best practical waste treatment technology before discharging into receiving waters. The developed alternatives are consistent with this approach.

6.1.4 Comprehensive Planning:

The updated Comprehensive Plan for North Manheim Township was in 2010. The Comprehensive Plan recommends the following associated with wastewater treatment:

- Public sewerage is already supplied to the most densely populated areas of the Township. The Plan promotes opportunities for communication and cooperation between the Township and Authority/entities that manage these systems. The Plan further states that communication and cooperation is essential if the growth policies of the Township are to agree with the plans of the Authority/entities.
- Sewer service should be extended throughout the Township by the Township Authority in areas which can be feasibly provided with these facilities.
- Control urban sprawl by focusing higher density residential development in those areas served by public facilities.
- Coordinate proposed industrial growth areas with planned public utility service areas.
- Protect important headwaters of the Schuylkill River and other local watersheds given their effect on groundwater.
- Recognize and preserve important farmlands within the Township for future generations.
- Protect steep slope areas from unnecessary development.
- Establish lower density, larger lot land use policy which recognizes the existence of soil conditions in the Township which are not well suited for on-lot sewage disposal.
- Rely upon the Act 537 Sewer Planning to guide future sewer service areas.

The Schuylkill County Board of Commissioners adopted an update to the County Comprehensive Plan in 2006. The County's Comprehensive Plan recommends the following associated with wastewater treatment:

- Ensure that development occurs in ways that minimize degradation of natural and cultural environments.
- Ensure that development occurs in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors.

- Provide public services, facilities, and utilities in the most efficient, cost-effective manner, taking into account community needs and environmental factors.
- Support efforts of water supply and wastewater treatment authorities to plan ahead for expansion of capacities and extensions of the areas of service in accordance with growth projections and the Growth Management Plan of the County Comprehensive Plan.

The population projections developed for this study are consistent with the land use recommendations of the Comprehensive Plan update and the Schuylkill County Comprehensive Plan. All of the alternatives developed will meet the goals of both Comprehensive Plans related to wastewater facilities.

6.1.5 Chapters 93, 95, and 102 Antidegradation Requirements:

Chapters 93 and 95 under Pennsylvania's Clean Streams Law classifies all surface waters according to uses to be protected and establishes water quality criteria which need to be maintained in the surface waters. The surface water discharges proposed by the alternatives in this Plan are from existing WWTPs that have been issued NPDES Permits. The discharges from these facilities currently comply with the established water quality criteria and are expected to remain in compliance with the criteria if any of the alternatives developed for this Plan are implemented.

Chapter 102 requires a soil erosion and sedimentation control plan be prepared and followed for any construction activity impacting greater then one (1) acre. Any sewer system improvements constructed within North Manheim Township during implementation of the selected alternative will be completed in compliance with necessary erosion and sedimentation control plans.

6.1.6 State Water Plan:

The Water Resources Planning Act required that water plans be prepared for all major watersheds in Pennsylvania. North Manheim Township is within the Delaware watershed. The State Water Plan for this watershed were updated in 2009. The Plan looked at water quantity and quality issues and provided solutions for those cases where a problem existed or was projected to occur based on the long-term population projections included in the Plan. The Plan recommends the following associated with wastewater treatment:

- Improve management of water resources (including stormwater and wastewater) and waterway corridors to reduce damages from extreme conditions (floods and droughts).
- Reduce point source discharges of toxics and wastewater and promote land application and appropriately scaled wastewater treatment systems.

There are no known conflicts between water quality management goals and objectives of the State Water Plans and the recommendations of this Act 537 Plan.

6.1.7 Prime Agricultural Land Policy:

The policy was established to protect prime agricultural land from irreversible conversions to uses that result in the loss of the land as an environmental or essential food source resource. According to the Soil Survey for Schuylkill County, Pennsylvania, prepared by the U.S. Department of Agriculture Soil Conservation Service (SCS), and the Prime Farmland Soils of Pennsylvania prepared by the SCS, prime farmlands exist primarily throughout the southeastern portion of North Manheim Township. Map No. 9 of this Plan shows the extent of land containing prime agricultural soils as identified by the SCS. Much of the prime farmland in the southeastern portion of the Township has already been developed or designated for future development, and the remaining prime farmland is zoned Residential – Agriculture (RA) or Low-Density Residential (R1). None of the alternatives will permanently remove any existing farmlands from production; therefore, the alternatives are consistent with the Prime Agricultural Land Policy by not promoting public sewage facilities in designated agricultural areas. Any wastewater generated outside the public sewer service area will be served by individual on-lot wastewater systems.

6.1.8 County Stormwater Management Plans:

The Township is located within the Schuylkill River Watershed. Schuylkill County does not have a countywide Stormwater Management Plan prepared under Act 167. North Manheim Township has adopted an ordinance consistent with the Act 167 Stormwater Management Plan requirements. Stormwater Management Ordinance No. 109 was adopted by the North Manheim Township Board of Supervisors on May 27, 2008, and last amended by Ordinance No. 135 on August 27, 2015. Any new development resulting from implementation of this Plan will be completed in conformance with applicable stormwater regulations.

6.1.9 Wetlands:

Areas classified as wetlands by the National Wetlands Inventory (NWI) are identified on Map No. 2. As noted in Section 1.3 of this Plan, wetlands are defined by Pennsylvania Title 25, Chapter 105 as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. The three essential characteristics possessed by wetlands are: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology, the driving force creating wetlands. Land located along stream corridors in the Township contains NWI wetlands or hydric soils. Sanitary sewers are

typically placed along stream corridors to minimize pumping requirements; therefore, some wetland impacts potentially could occur during construction of sanitary sewers.

A wetland delineation to identify and define the actual location of wetlands and their boundaries will be performed during the design phase of any sewer extension. Placement of the sewer line in or through wetlands or streams should be minimized. If wetland encroachment cannot be avoided, PADEP and the US Army Corps of Engineers' approval will be needed. Construction through wetlands, if permitted, may require the use of a US Army Corp of Engineers' Nationwide Permit 12 and a PADEP General Permit BDWM-GP-5. Temporary road crossings through wetlands or streams may require a PADEP General Permit BDWM-GP-8.

Sanitary sewer alternatives are proposed to address the existing and future needs of the Township. The alternatives involve the extension of public sewers to one of the existing wasterwater treatment facilities already in operation and servicing portions of the Township. The alternatives envision sewer extensions within existing road right-of-ways to the greatest extent possible to minimize any potential impact to wetlands. Based on mapping, provided on Map No. 2, it appears that certain alternatives could potentially impact existing wetlands; therefore, a wetlands delineation would be required.

6.1.10 Pennsylvania Natural Diversity Inventory:

The Pennsylvania Natural Diversity Inventory (PNDI) maintains a database containing site information on regulated plant and animal species, outstanding geological features, and significant natural communities. A search of the Pennsylvania Department of Conservation and Natural Resources PNDI database for the portions of the Township encompassing the area where new public sewerage facilities were proposed for each alternative was completed. The Township received a response from PNDI indicating that potential impact of species of special concern are known to exist within the project areas. The response from the Pennsylvania Bureau of Forestry stated that no impact is anticipated. Copies of the PNDI search is included in the Appendix H.

6.1.11 Historical and Archeological Resource Protection:

Pennsylvania Title 37, Section 507 requires cooperation between public officials and the Pennsylvania Historical and Museum Commission. A cultural resource search of the Bureau of Historic Preservation (BHP) GIS mapping was conducted to identify any known historical sites and potential impacts on known archeological and historic sites within North Manheim Township by implementation of any of the wastewater alternatives. Multiple BHP sites are in within the general area of certain alternatives. It is not anticipated that any of these sites will be impacted. A copy of the GIS attribute features and corresponding documentation are included in the Appendix I.

6.1.12 Water Quality Standards and Effluent Limitations:

No alternative is calling for a new permitted stream discharge. No new NPDES Permits will be obtained for any alternative. No impact is anticipated.

6.1.13 Resolution of Inconsistencies:

Based on the above analyses, it does not appear that there are any inconsistencies, at the planning stage, between the alternatives and the various goals and objectives of the planning, environmental and natural resource laws and policies of the Commonwealth of Pennsylvania.

6.2 Additional Environmental Assessment

The National Environmental Policy Act (NEPA) governs funding from the Environmental Protection Agency (EPA). NEPA establishes the basic national charter for protection of the environment and for identifying a proposed project's environmental consequences and the measures that will be taken to reduce negative impacts. NEPA requires that federal funding recipients undergo an Environmental Assessment to support the request for funding. PADEP allows Act 537 Plans to include the required Environmental Assessment, as long as it is readily distinguishable from other components of the Act 537 Plan.

PADEP's "Guidelines for the Uniform Environmental Review (UER) Process in Pennsylvania" establishes standards for documenting the environmental effects of wastewater infrastructure projects requesting financial assistance from various federal funding sources in Pennsylvania. North Manheim Township anticipates applying for PENNVEST funding to potentially help finance any selected alternative and any other public sewage facility improvements recommended by this Act 537 Plan; therefore, an assessment of the potential environmental impacts of the proposed projects not previously evaluated under Section 6.1 were undertaken to satisfy the NEPA requirements. Section 6.2 includes the NEPA Environmental Assessment provisions not required by an Act 537 Plan.

6.2.1 National and State Parks, Forest, and Trails:

National and state parks, forests, trails, and national monuments and landmarks located in the vicinity of the proposed alternatives are identified in the Appendix. There are no national or state parks, forests, or national monuments or landmarks located within one mile of any portion of the project. There is one trail, Schuylkill River Greenways, which runs through North Manheim Township. The Schuylkill River Greenways is a National Heritage Area. A National Heritage Area is designated by Congress for its unique nationally significant qualities and resources. It is a place where a combination of natural, cultural, historic and recreational resources have shaped a cohesive, nationally distinctive landscape. The Schuylkill River Trail is part of the Schuylkill River Greenways and is a

multi-use path that will extend 120 miles from Frackville in Schuylkill County, through Montgomery, Chester and Berks Counties to Philadelphia. Since the construction of any of the alternatives will not extend beyond the public right-of-way, the project will have no impact on the Schuylkill River Trail.

Pennsylvania State Game Land No. 286 is the closest managed state or federal land to one of the proposed alternatives. State Game Land No. 286 is located on the southside of the Schuylkill River south of the Borough of Schuylkill Haven and is adjacent to the West Adamsdale Road. Construction associated with the proposed public sewer system alternatives will not extend beyond the public road right-of-way in this area and will have no impact on the State Game Land.

6.2.2 Floodplains:

Pennsylvania's Flood Plan Management Act states that all municipalities with areas subject to flooding, as shown on maps compiled by the Federal Emergency Management Agency (FEMA), are required to have a floodplain management ordinance, which at a minimum, imposes the standards necessary to comply with the requirements of the National Flood Insurance Act of 1968. This means that structural development in the floodway of any watershed that would cause an increase in the 100-year flood evaluation is prohibited. Proposed structural developments located within the 100-year flood plain must obtain all permits and approvals required for compliance with Chapter 105 of PADEP's regulations prior to construction. None of the alternatives propose an above ground structure; therefore, the proposed construction will not cause an increase in the 100-year flood elevation.

6.2.3 Water Quality Issues:

The alternatives will improve the area groundwater quality by removing failing on-lot wastewater treatment systems. All ~~of~~ the alternatives will connect to existing sewage collection and conveyance systems. All creeks are classified as "Cold Water Fishery" at the discharge and downstream portions. The alternatives should therefore improve water quality within the watershed. None of the alternatives ~~are located~~ in a sole-source aquifer recharge area.

6.2.4 Coastal Resources:

The project areas are in North Manheim Township, Schuylkill County, Pennsylvania. Schuylkill County is situated in northeastern Pennsylvania and is not regulated by Coastal Zone Management due to its distance from the coast. The project will have no impact on the coastal resources of Erie, Delaware, Bucks, or Philadelphia Counties.

6.2.5 Socio-Economic Issues:

On February 11, 1994, President Clinton issued Executive Order No. 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" and an accompanying Presidential memorandum to focus Federal attention on the environmental and human health conditions in minority communities and low-income communities. To the greatest extent practicable and permitted by law, EPA must identify and address disproportionately high and adverse human health and environmental effects on minority populations and low-income populations in the United States and its territories.

The proposed alternatives are intended to improve the level of living and health for residents within the project areas. All residents within the Township service area and immediate downstream communities will benefit from the water quality improvements that will result from implementation of the proposed alternatives. No disproportionate adverse effects will be imposed on minorities or disadvantaged residents by the alternatives.

6.2.6 Air Quality:

The proposed alternatives are not expected to cause any negative impacts to air quality after completion of construction. The contractor will be required, during construction, to control dust emissions. The construction contract documents will require the contractor to provide effective dust control by sprinkling water, using calcium chloride, or by other methods approved by the engineer during any surfacing or trenching activities that have the potential for dust generation.

6.2.7 Transportation:

Most of the alternatives involve construction within roads. Traffic control measures will be implemented during construction to allow for trenching and pipeline installation. During this time, the flow of traffic will need to be modified to allow for the improvements to the sanitary sewer system. Overall, the transportation patterns of the surrounding communities should not be negatively affected by the implementation of any of the alternatives.

6.2.8 Noise Abatement and Control:

The proposed projects involve the existing of existing sanitary sewer collection and conveyance systems. A minor elevation of noise is anticipated during the construction period; however, no changes to noise levels are expected after completion of the construction of any of the alternatives.

6.2.9 Wild and Scenic Rivers:

The Wild and Scenic Rivers Act was enacted in 1968 to preserve and protect selected rivers and river segments in their free-flowing condition. The American Heritage Rivers initiative was enacted to help maintain designated river communities by providing federal assistance more efficiently and effectively. Any project that has a potential impact on designated Wild and Scenic Rivers or American Heritage Rivers must be reviewed and approved by the national park Service and the DCNR.

Streams located in the area of alternatives are Schuylkill River, West Branch Schuylkill River, Beaver Creek, Long Run, Mahonney Creek, and Mahannon Creek none of which are designated as either Wild and Scenic or American Heritage Rivers.

6.2.10 Miscellaneous Environmental Considerations:

Pennsylvania's Flood Plan Management Act states that all municipalities with areas subject to flooding, as shown on maps compiled by the Federal Emergency Management Agency (FEMA), are required to have a floodplain management ordinance, which at a minimum, imposes the standards necessary to comply with the requirements of the National Flood Insurance Act of 1968. This means that structural development in the floodway of any watershed that would cause an increase in the 100-year flood evaluation is prohibited. Proposed structural developments located within the 100-year flood plain must obtain all permits and approvals required for compliance with Chapter 105 of PADEP's regulations prior to construction. None of the alternatives propose an above ground structure; therefore, the proposed construction will not cause an increase in the 100-year flood elevation.

6.2.11 Resolution of Inconsistencies:

Based on the above analyses, it does not appear that there are any inconsistencies, at the planning stage, between the alternatives and the various goals and objectives of the National Environmental Policy Act.

6.3 On-Lot Service Areas

The number of occupied lots in North Manheim Township currently served by on-lot wastewater systems is estimated to be 1,009. Map No. 14B presents the results of a sewage disposal needs assessments in accordance with the PADEP Guidance Document, "Act 537 Sewage Disposal Needs Identification". The Guidance Document states that all on-lot systems must be placed into one of the following four categories:

- Confirmed Malfunctions: Malfunctions documented by dye testing, laboratory tests, observations by a certified SEO or professional with experience in on-lot systems, "Best Technical Guidance" repair permits, and seasonally wet adsorption areas. Also included are piped discharges from a

single structure with direct evidence of sewage, reported system backups, malfunctions with photographic documentation or other similar evidence.

- Suspected Malfunctions: Those systems exhibiting some malfunction characteristic, such as abnormally green grass in the vicinity of an adsorption area, piped discharges from one dwelling without direct evidence of sewage, adsorption areas located in known unsuitable soils (observed wetlands, rock outcropping, etc.), cesspools, and pit privies.

- Potential Malfunctions: Those systems that appear to be operating satisfactorily but were constructed prior to system permitting requirements (constructed prior to 1972), systems located in areas extremely unlikely to receive permitting by current standards, systems constructed in areas having soils mapped as unsuitable or with severe limitations, and systems located on slopes greater than 25%.

- No Malfunctions: Those systems that appear to be operating satisfactorily, were constructed since the implementation of system permitting requirements (since 1972), and appear to have been constructed in accordance with the permitting requirements in effect at the time of construction.

Table 6.1 presents a summary of key needs assessment statistics. Appendix F provide available information for each of the individual properties within the on-lot areas.

Table 6.1: Summary of Key Needs Assessment Statistics

Statistic	***Result***	***Percentage***
Total Door-to-Door Surveys Completed	150	
No Malfunction	110	73.3%
Potential Malfunction	19	12.7%
Suspected Malfunction	15	10.0%
Confirmed Malfunction	6	4.0%

The majority of the parcels located in the study area are of sufficient size to adequately meet the needs for on-lot sewage disposal. However, 7 of the 150 properties surveyed or 4.7% were classified as having limited replacement area; i.e., less than one acre in area. It is presumed that many of these lots were created prior to any stringent zoning ordinances governing minimum lot size. Many of the on-lot systems for these lots also predate state sewage regulations adopted in 1972. Many of the parcels identified as potential malfunctions possess these two characteristics of limited lot size and a pre-regulatory sewage system.

Of the 21 parcels identified as suspected or confirmed malfunctions, 11 parcels or 52.4% were identified as having a pre-regulatory system with adequate space for a replacement system. Many times these pre-regulatory systems employed an in-ground disposal system. Much of the soil in North Manheim Township are not suitable for in-ground sewage disposal due to slow permeability, high water table, shallow depth to

bedrock, etc. It is believed that if proper soil testing were performed, an appropriate sewage disposal method could be identified and employed thus correcting the problem.

Based on the results of the sewage needs survey, there are no areas that would be classified as an area of need. Table 6.2 identifies the existing on-lot systems that were inspected as part of the preparation of this Plan defined by each of the PADEP prescribed malfunction categories.

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
SEWAGE NEEDS SURVEY
INSPECTED PROPERTIES WITH ON-LOT SEWAGE FACILITIES

NO.	TAX ID No.	OWNER 1	OWNER 2	HOUSE	STREET	CITY	STATE	ZIP	MALFUNCTION STATUS
2	18-01-0007.001	INVEST REALTY LLC	Thomas McNulty	200	N ROUTE 183	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
4	18-02-0006.005	BERGER, JEFFREY		125	DEER TRAIL DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
6	18-03-0011.008	BERGMAN, DAVID		156	RANCH ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
8	18-03-0015.001	FAUST, PHILLIP R	FAUST, JEAN M	71	RANCH ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
9	18-03-0015.008	MCDEMUS, JOSEPH E	MCDEMUS, ROSEMARY	39	RANCH ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
11	18-05-0020.000	KEIL, PHILIP S	KEIL, MARY A	499	GORDON NAGLE TRAIL	POTTSVILLE	PA	17901	NO MALFUNCTION
12	18-05-0027.000	DEMARKIS JOSEPH A	DEMARKIS CHERYL S	17	GRACY ROAD	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
14	18-05-0048.000	ARNER, ROBERT F	ARNER, SANDRA R	12	MARTHA LANE	POTTSVILLE	PA	17901	NO MALFUNCTION
15	18-05-0050.000	HENRY, ROBERT M		1080	BAKERY ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
16	18-05-0068.000	MURRAY, JANET	ENDERS, GERALD		ROUTE 61 HWY	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
17	18-05-0068.001	ENDERS GERALD L	ENDER, JANET	1254	ROUTE 61 HWY S	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
18	18-05-0087.000	FRANK, ROBERT E	FRANK, MARGARET L	2551	PANTHER VALLEY ROAD	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
21	18-05-0100.000	REPPERT JOSEPH ALLEN SR		71	BECKVILLE ROAD	CRESSONA	PA	17929	NO MALFUNCTION
22	18-05-0100.001	WATT DONALD RICHARD JR		3	GAME CLUB ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
25	18-05-0139.001	MACH's GUT CANDLE BARN, INC.	c/o KOERBLER SCOTT M	41	PAPOOSE DRIVE	AUBURN	PA	17922	POTENTIAL MALFUNCTION
28	18-06-0030.000	BOLTZ CHAD M	BOLTZ MACKENZIE	125	HEMLOCK DRIVE	POTTSVILLE	PA	17901	CONFIRMED MALFUNCTION
29	18-06-0036.006	STEIN, JAMES	STEIN, SUSAN	114	E. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
31	18-06-0037.001	DERMO SUSANNE G		51	HEMLOCK DRIVE	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
32	18-06-0041.003	DIERWECHTER, LEON WILLIAM	DIERWECHTER, PAULINE B	28	E. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
35	18-06-0057.001	ECKERT, HARRY L	ECKERT BETH A	82	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
37	18-06-0071.004	GERBER, CRAIG L	GERBER, JUDITH L	383	MANHEIM ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
38	18-06-0086.003	EDLING, EDWARD L	EDLING, CAROLINE J	97	DOGWOOD DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
39	18-06-0115.000	LOFTUS, CHRISTOPHER R	LOFTUS, SALLY A	1091	W. MARKET STREET	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
40	18-06-0118.004	TOBASH, JANINE	TOBASH, CURTIS	15	TOBASH DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
41	18-06-0119.003	KOEHLER, JOHN L		10	FIRST STREET	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
43	18-06-0174.002	JENKINS ANNA MAE	JENKINS DAVID E	116	BRIAR ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
45	18-07-0006.000	UMPHREY RONALD W	UMPHREY MARGARET S	560	E. SECOND MOUNTAIN ROAD	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
46	18-07-0018.000	RAUDENBUSH ARTHUR L		388	E. SECOND MOUNTAIN ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
47	18-07-0028.001	BOHRMAN JAMES R	BOHRMAN ROBERTA A	1066	W. MARKET STREET	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
49	18-07-0038.005	KARNOVAL, STEPHEN J	KARNOVAL, RITA	80	N. GREENVIEW ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
50	18-07-0042.000	LIDDLE, RAYMOND T	LIDDLE, MARION E	960	W. MARKET STREET	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
52	18-07-0052.003	KOLBE`S POOLS AND MORE		574	ROUTE 61 HWY S	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
53	18-07-0057.004	LAUDEMAN DAVID C		705	RIDGE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
54	18-07-0057.005	PATEL GITA R	PATEL SUDHIR R	620	RARING DRIVE	ORWIGSBURG	PA	17961	NO MALFUNCTION
56	18-07-0075.000	GIBBONS, MARK R	GIBBONS, HEIDI JO	80	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
59	18-07-0083.000	STANCAVAGE CHARLES J	for 172 E ADAMSDALE ROAD	1730	WEST MARKET STREET	POTTSVILLE	PA	17901	NO MALFUNCTION
61	18-07-0085.011	CRAWFORD ROBERT R JR		198	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	POTENTIAL MALFUNCTION
63	18-08-0005.003	THORNTON, SARA T		2503	PANTHER VALLEY ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
68	18-08-0018.001	EBLING ZACHARY W		1822	SWEET ARROW LAKE ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
69	18-08-0030.001	BURCIK, MICHAEL L	BURCIK, SHANNAN L	200	MORNING SIDE DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
70	18-08-0033.000	LUCKENBILL, LARRY L	LUCKENBILL, DIANE	174	MORNING SIDE DRIVE	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
73	18-08-0043.001	CAMLIN SERENA E		132	MORNINGSIDE DRIVE	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
75	18-08-0048.000	ALBITZ, KENNETH W		155	MORNING SIDE DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
77	18-08-0056.000	KOZURA, JOHN A	KOZURA, MARY T	135	SHADY LANE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
78	18-08-0063.000	NEBISTINSKY, LEONARD		113	SHADY LANE	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
79	18-08-0068.000	CHRISTENSON, MARY E		65	HAWK LANE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
81	18-08-0072.001	STALLER, THEO M	STALLER, LORETTA E	20	KRAFT LANE	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
83	18-08-0082.000	MOYER, DAVID	MOYER, SHERRY	7	GLADYS LANE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
86	18-08-0141.002	JEFFERSON, WILLIAM C	JEFFERSON, THOMASINE	6	BENSINGER DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
87	18-08-0142.003	TOTHERO JAMES & DENISE	for 823 SCHUYLKILL MOUNTAIN ROAD PROPERTY	923	SCHUYLKILL MOUNTAIN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
88	18-08-0142.004	REBER, WILLIAM A	REBER, BONNIE J	795	SCHUYLKILL MOUNTAIN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
SEWAGE NEEDS SURVEY
INSPECTED PROPERTIES WITH ON-LOT SEWAGE FACILITIES

NO.	TAX ID No.	OWNER 1	OWNER 2	HOUSE	STREET	CITY	STATE	ZIP	MALFUNCTION STATUS
89	18-08-0142.017	MURPHY JOHN	HUMANICK JESSICA	839	SCHUYLKILL MOUNTAIN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
91	18-09-0014.000	MENGEL, MARK R		327	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
93	18-09-0034.000	BOWEN DONNA K		276	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
94	18-09-0051.000	MATTERA MICHAEL V	MATTERA DEBORAH J	136	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
96	18-10-0015.003	BROSSMAN EUGENE R	BROSSMAN CREOLA A	11	MEADOW DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
100	18-10-0105.003	LEININGER, DONALD L	LAFFERTY, WILLIAM R	1005	WOODLAND DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
101	18-10-0105.011	EASPARRO WILLIAM	EASPARRO JENNIFER L	1046	WOODLAND DRIVE	POTTSVILLE	PA	17901	SUSPECTED MALFUNCTION
102	18-10-0105.017	SLANE, JOHN L	SLANE, ARLENE M	1026	WOODLAND DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
103	18-11-0003.000	CHAFFE, DONNA KURTZ - TRUSTEE		119	DONALD AVENUE	POTTSVILLE	PA	17901	NO MALFUNCTION
104	18-11-0006.000	FORAN, WILLIAM T		1	ELMER AVENUE	POTTSVILLE	PA	17901	NO MALFUNCTION
107	18-11-0024.000	PARNELL, CAROLYN M		110	DONALD AVENUE	POTTSVILLE	PA	17901	NO MALFUNCTION
109	18-12-0005.000	RENZI JOHN C	RENZI PATRICIA M	165	GLENWORTH ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
111	18-12-0008.000	CONWAY, IRENE		860	CRESSONA ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
113	18-14-0020.000	TRUSCOTT, JOHN H	TRUSCOTT, DELORES	122	JACKS LANE	POTTSVILLE	PA	17901	NO MALFUNCTION
114	18-14-0027.000	FISHER, FRANKLIN H	FISHER, SUSAN M	14	VERNON AVENUE	POTTSVILLE	PA	17901	NO MALFUNCTION
115	18-14-0042.000	DONTON, CLARENCE	DONTON, DEBRA	132	ALBERT BOULEVARD	POTTSVILLE	PA	17901	NO MALFUNCTION
117	18-14-0057.001	BALDWIN, RICHARD E	BALDWIN LAURA L	113	ALBERT BOULEVARD	POTTSVILLE	PA	17901	NO MALFUNCTION
120	18-16-0004.002	GORSKI, JAMES J	GORSKI, LOIS E	3	MARGARET TERRACE	POTTSVILLE	PA	17901	NO MALFUNCTION
121	18-16-0007.000	SCOTT BARBARA K	SCOTT CHRISTOPHER R	9	WILBERT DRIVE	POTTSVILLE	PA	17901	CONFIRMED MALFUNCTION
122	18-16-0010.000	DAUBERT WILLIAM	FESSLER KAY	15	CRESSWELL AVENUE	POTTSVILLE	PA	17901	NO MALFUNCTION
124	18-16-0022.001	SHAUD, ERIC C	SHAUD, TANYA L	168	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
125	18-16-0031.000	GEARY, ANDY W		188	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
126	18-16-0044.000	PRADON MATTHEW A		263	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
127	18-16-0060.000	PUCCI ARTHUR	PUCCI LORA	247	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
130	18-17-0018.000	GEIGER RICHARD D	HILL LINDA A	154	RIVER STREET	CRESSONA	PA	17929	CONFIRMED MALFUNCTION
135	18-19-0056.000	LLEWELLYN LEE L II	LLEWELLYN REBA I	62	FIDLER AVENUE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
137	18-21-0005.000	HEYDT WILLIAM G	HEYDT, ROBERT W	42	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
138	18-21-0009.000	HANCOCK DONALD C	HANCOCK PEGGY B	35	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	CONFIRMED MALFUNCTION
139	18-21-0014.000	DRONICK, MERLIN	DRONICK, THERESA	23	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
141	18-21-0027.000	RAYBURN THOMAS L	RAYBURN TRACY L	2	E. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
144	18-23-0011.000	EUBERT, MALCOLM E	EUBERT, DARLENE J	14	GRACE AVENUE	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
147	18-23-0108.000	DONETTI GEORGE	DONETTI PATRICIA	19	JANE AVENUE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
151	18-04-0001.002	BUZALKO, STEPHEN	BUZALKO, ANN MARIE	660	GORDON NAGLE TRAIL	POTTSVILLE	PA	17901	NO MALFUNCTION
152	18-19-0056.000	LLEWELLYN LEE & REBA		62	FIDLER AVENUE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
153	18-16-0017.001	BENSINGER, MICHELLE L	BENSINGER, MEGAN E	146	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
154	18-16-0025.000	WUNDER, MATTHEW		184	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
155	18-16-0031.000	GEARY, ANDY W		188	W. SECOND MOUNTAIN ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
156	18-16-0097.001	HRITZKO, JOSEPH V	HRITZKO, JESSICA E	7	KILLIAN LANE	POTTSVILLE	PA	17901	NO MALFUNCTION
157	18-07-0050.000	STEELY, BRANDON A	STEELY, JENNIFER K	21	N. GREENVIEW ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
159	18-05-0092.000	KROUSE-PAULEY, KIMBERLY A		2639	PANTHER VALLEY ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
160	18-05-0090.000	NOLL, TYLER E	MARTIN, MICHELLE R	2591	PANTHER VALLEY ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
161	18-21-0018.000	HOFFMAN, CURTIS M		15	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	CONFIRMED MALFUNCTION
162	18-08-0081.000	SHIVE, MARY C	SHIVE, DALE M	33	GULDIN STREET	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
163	18-06-0101.001	PETERS, JOSEPH C		501	Route 61 S	POTTSVILLE	PA	17901	NO MALFUNCTION
164	18-06-0056.000	PREMICH, CHARLES A		93	N. LAKE DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
165	18-06-0173.000	HAESLER, MICHAEL J	WOLFE, MICHELLE K	111	BRIAR ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
166	18-06-0171.000	LURWICK, MICHAEL J	LURWICK, PAIGE A	101	BRIAR ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
167	18-07-0085.000	SCHNERRING, MARTENNA		201	ANTIQUE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
168	18-07-0073.000	WEIDMAN, TAMMY L		85	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
169	18-07-0039.000	JOSHUA 241324 PROPS LLC		1019	W. MARKET STREET	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
170	18-07-0065.001	THOMPSON, DONALD D	THOMPSON, EILEEN M	0	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
SEWAGE NEEDS SURVEY
INSPECTED PROPERTIES WITH ON-LOT SEWAGE FACILITIES

NO.	TAX ID No.	OWNER 1	OWNER 2	HOUSE	STREET	CITY	STATE	ZIP	MALFUNCTION STATUS
171	18-07-0055.000	KRAMER, MERLIN G	KRAMER, DOROTHY A	15	S. GREENVIEW	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
172	18-06-0123.002	STOKES IRREVOCABLE B TRUST	STOKES, HERROLD MR T	12	CRESTVIEW DRIVE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
173	18-06-0120.001	CHILLIS, CHARLES J	CHILLIS, MARGARET A	32	CRESTVIEW DRIVE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
174	18-06-0123.000	MOYER, CORI L		10	CRESTVIEW DRIVE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
175	18-06-0119.005	HOSLER, NANCY A		43	CRESTVIEW DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
176	18-09-0046.000	THOMPSON, BRYAN	THOMPSON, ABBY	177	W. ADAMSDALE ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
177	18-10-0015.001	TROCH, JEFFREY LEE	TROCH, AMY L	27	MEADOW DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
178	18-07-0065.003	FREEMAN, JAMES HENRY JR	FREEMAN, SANDRA JOY	57	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
179	18-07-0072.000	WEIDMAN, DONALD		75	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
180	18-07-0082.001	RICHTER, BRIAN C SR	RICHTER, SANDRA	183	E. ADAMSDALE ROAD	ORWIGSBURG	PA	17961	NO MALFUNCTION
181	18-07-0053.003	SEITZINGER GROUP		0	S. GREENVIEW & RT. 61S	POTTSVILLE	PA	17901	POTENTIAL MALFUNCTION
182	18-07-0077.001	ECKERT, KENNETH G	ECKERT, MICHELLE A	560	RT. 61S	POTTSVILLE	PA	17901	NO MALFUNCTION
183	18-23-0002.000	RIPLEY, STEVEN J	RIPLEY, TIFFANY A	50	GRACE AVENUE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
184	18-23-0024.000	DONTON, CLARENCE W		31	GRACE AVENUE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
185	18-23-0022.000	EDWARDS, KATHLEEN A		27	GRACE AVENUE	SCHUYLKILL HAVEN	PA	17972	POTENTIAL MALFUNCTION
186	18-06-0105.001	RENNINGER, JOHN & SONS INC		0	BUILTWELL RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
187	18-23-0012.000	BAYVIWE LOAN SERVICING LLC		43	BUILTWELL RD	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
188	18-06-0124.000	BELL, TARA		8	CRESTVIEW DRIVE	SCHUYLKILL HAVEN	PA	17972	SUSPECTED MALFUNCTION
189	18-06-0167.007	HUNTZINGER, WAYNE C		25	MEMORIAL DR	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
190	18-06-0086.009	KOPPENHAVER, DAVID H		0	SUNNYSIDE LN	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
191	18-06-0076.001	FEHR, JOHN T JR	FEHR, ALICIA M	318	MANHEIM RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
192	18-06-0071.005	CLEMAS, JAIME		73	W SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
193	18-06-0073.004	NORTH MANHEIM TOWNSHIP	NEW OFFICE BUILDING	303	MANHEIM RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
194	18-06-0073.004	NORTH MANHEIM TOWNSHIP	ROAD CREW GARAGE	303	MANHEIM RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
195	18-06-0041.008	SMITH, JANET		2	HEMLOCK DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
196	18-06-0041.010	CURNOW, EDWARD T		16	HEMLOCK DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
197	18-06-0041.012	FANELLI, KEVIN J		1	FIELD OF DREAMS DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
198	18-06-0026.000	SECOND MOUNTAIN ROAD ROD AND GUN CLUB		0	SECOND MOUNTAIN ROAD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
199	18-07-0015.003	RAUDENBUSH, ARTHUR W	RAUDENBUSH, JENNIFER	440	E SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
200	18-03-0018.000	LESHER, RANDY	LESHER, NICOLE	559	E SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
201	18-06-0041.007	WEBB, JACOB		2	HEMLOCK DRIVE	POTTSVILLE	PA	17901	NO MALFUNCTION
202	18-06-0036.001	SHUEY, GILBERT D	SHUEY, JOYCE L	80	E SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
203	18-06-0009.001	CLAUSER, AARON S	CLAUSER, KRISTA S	312	DEER TRAIL DR	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
204	18-06-0012.001	HELBIG, DONALD W	GENTILE, GWEN	163	E. SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
205	18-02-0005.002	KLINE, WMR & E IRR TRUST	FIX, CHARLES H SR	132	DEER TRAIL DR	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
206	18-02-0005.005	STEPENASKIE, ROBERT W II	STEPENASKIE, AMANDA M	126	DEER TRAIL DR	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
207	18-03-0017.000	LEYMEISTER, STEVEN A	LEYMEISTER, KAREN A	19	RANCH RD	POTTSVILLE	PA	17901	NO MALFUNCTION
208	18-07-0005.000	CAULEY, ROBERT		540	E SECOND MTN RD	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION
209	18-05-0113.001	SPONTAK, OLGA L	SPONTAK, THEODORE CHARLES	134	OLD MILL RD	POTTSVILLE	PA	17901	NO MALFUNCTION
210	18-05-0112.000	THOMPSON, MICHAEL T	THOMPSON, MELISSA A	0	OLD MILL RD	POTTSVILLE	PA	17901	NO MALFUNCTION
211	18-05-0122.000	MILLER, KEVIN L	MILLER, BARBARA G	52	APPLE LANE	POTTSVILLE	PA	17901	NO MALFUNCTION
212	18-05-0122.004	HEFFRON, KARIN L	KROMER, LEROY E II	57	APPLE LANE	POTTSVILLE	PA	17901	NO MALFUNCTION
213	18-10-0105.007	BITTLE, JERRY A		1042	WOODLAND DR	POTTSVILLE	PA	17901	CONFIRMED MALFUNCTION
214	18-05-0110.001	STROUSE, KEITH A	STROUSE, KIMBER C	43	MENGLE ST	POTTSVILLE	PA	17901	NO MALFUNCTION
215	18-10-0105.012	SADUSKY, BENJAMIN A	SADUSKY, NANCY L	1030	WOODLAND DR	POTTSVILLE	PA	17901	NO MALFUNCTION
216	18-10-0105.010	NAYDOCK, MICHAEL J		1009	WOODLAND DR	POTTSVILLE	PA	17901	NO MALFUNCTION
217	18-01-003.000	BERGER, DIRK S	BERGER, JENNIFER ANN	139	GLENWORTH ROAD	POTTSVILLE	PA	17901	NO MALFUNCTION
219	18-14-0018.002	JAMES, JASON E		83	HAVEN FAIR LAWN DRIVE	SCHUYLKILL HAVEN	PA	17972	NO MALFUNCTION

6.4 Public Sewage Facilities

The following provides a description of pros and cons; as well as, an opinion of probable project cost for each of the structural alternatives identified in Section 5.

The total project cost consists of three parts; the total construction cost, "soft costs" (legal/administrative/financial, engineering, and construction inspection), and a contingency. During the planning stages of a project, "soft costs" and the contingency are typically estimated using percentages of the estimated construction cost. On Table 6.3, the percentages that were used to calculate the "soft costs" and contingency for the total project cost is presented.

Table 6.3: Percentages Used to Develop the Opinion of Probable Project Cost

Category	*Percentage Of Opinion Of Probable Construction Cost*
Legal / Administrative / Financial	2%
Engineering	10%
Construction Inspection	5%
Contingency	10%

The opinion of probable project costs and costs per EDU for each of the alternatives is provided in the Appendix J.

6.4.1 Pottsville Basin –Extension No. 1 (Hillside Drive / Cressona Road): Map 17A

This alternative services the Hillside Drive area of the Township. The intent of this alternative is to provide gravity service to the Greater Pottsville Area Sewer Authority's Wastewater Treatment Plant to the greatest extent possible. A total of seven (7) properties would be served under this alternative. This alternative does not address any known sewage needs; however, the cost of this alternative would be shared amongst three municipalities.

Opinion of Probable Project Cost

The Opinion of Probable Construction Cost for this alternative is $498,345. There is the potential of 20 users, of which 7 would be within North Manheim Township. The proportional share to North Manheim Township would be $174,421. This equates to a cost of $24,917 per equivalent dwelling unit (EDU).

6.4.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road): Map 17B

This alternative extending sanitary sewer service Glenworth Road; as well as, Cressona Road, SPCA Road, and a portion of SR183. The intent of this alternative is to provide sewage service to the Schuylkill County Municipal Authority's Seiders Hill Wastewater Treatment Plant utilizing gravity sanitary sewers. A total of 23 properties would be served under this alternative. This alternative does not address any known sewage needs.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $1,978,975. This equates to a cost of $86,042 per EDU.

6.4.3 Cressona Basin –Extension No. 1 (Gordon Nagle Trail / Woodlawn Dr.): Map 17C

This alternative extends sanitary sewer service to the Woodlawn Development off the Gordon Nagle Trail. The intent of this alternative is to provide sewage service to the greatest number of residents north of Cressona Borough along SR901 to reduce the cost per EDU of the alternative. Sewage would be conveyed to the Cressona Borough Authority's system. A total of 34 properties would be served under this alternative. This alternative addresses the sewage needs of two confirmed malfunctions and one suspected malfunction. Even though this alternative addresses confirmed malfunctions, the cost per EDU is significant because the lot sizes are relatively large and the developed lots are spaced out.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $1,398,320. This equates to a cost of $41,127 per EDU.

6.4.4 Cressona Basin –Extension No. 2 (Elmer Avenue / Morningside Drive): Map 17D

This alternative extends sanitary sewer service to the Elmer Avenue, Moringside Dirve, and adjacent cul-de-sacs off of SR183. The intent of this alternative is to provide sewage service to the greatest number of residents west of Cressona Borough. A total of 38 properties would be served under this alternative. These alternatives address the sewage needs of one suspected malfunction and one potential malfunction. The cost per EDU is significant because the lot sizes are relatively large.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $1,058,320. This equates to a cost of $27,851 per EDU.

6.4.5 Schuylkill Haven Basin –Extension No. 1 (Long Run Road): Map 17E

This alternative extends sanitary sewer service along the north side of Long Run Road. The intent of this alternative is to provide sewage service to the area previously planned for but not implemented. A total of 25 properties would be served under this alternative. This alternative addresses one suspected malfunction and one potential malfunction. Even though this alternative increases the number of properties served by public sewer, the cost per EDU is significant because the lot sizes are large.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $1,522,965. This equates to a cost of $60,919 per EDU.

6.4.6 Schuylkill Haven Basin –Extension No. 2 (Haven – Fairlawn): Map 17F

This alternative extends sanitary sewer service north of Schuylkill Haven Borough. The intent of this alternative is to provide sewage service to the greatest number of residents in the most compact area of the Township that does not currently have sewer service. A total of 138 properties would be served under this alternative. This alternative addresses one confirmed malfunction and one suspected malfunction. The cost per EDU remains extremely high.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $9,413,620. This equates to a cost of $68,214 per EDU.

6.4.7 Schuylkill Haven Basin –Extension No. 3 (Spring Street): Map 17G

This alternative extends sanitary sewer service north of Schuylkill Haven Borough along Spring Street. The intent of this alternative is to provide sewage service to the residents in this area of the Township that do not currently have sewer service. A total of 7 properties would be served under this alternative. This alternative does not addresses any known sewage needs. The cost per EDU, while lower than other alternatives in the Schuylkill Haven Basin, is significant.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $202,500. This equates to a cost of $28,928 per EDU.

6.4.8 Schuylkill Haven Basin –Extension No. 4 (Manheim Road): Map 17H

This alternative extends sanitary sewer service north of Sunnyside Drive along Manheim Road. The intent of this alternative is to provide sewage service to the residents in this area of the Township that do not currently have sewer service. A total of 3 properties would be served under this alternative. This alternative does not addresses any known sewage needs. The cost per EDU is reasonable.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $55,300. This equates to a cost of $18,433 per EDU.

6.4.9 Schuylkill Haven Basin –Extension No. 5 (Adamsdale Road/Memorial Drive): Map 17I

This alternative provides sewage service to portions of SR61, Memorial Drive, and Adamsdale Road. A total of 26 properties would be served under this alternative. This alternative addresses one suspected malfunction. The cost per EDU is significant because the lot sizes where the alternative services are large and there is a need for a sewage pump station.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $2,063,210. This equates to a cost of $79,354 per EDU.

6.4.10 Orwigsburg Basin –Extension No. 1A (Renningers to Schuylkill Haven): Map 17J

This alternative provides sewage service to the SR61 corridor; as well as, the Greenview Development. A total of 492 EDUs would be served under this alternative. This alternative addresses three (3) suspected malfunctions and seven (7) potential malfunctions. The cost per EDU is lower because the lot sizes where the alternative services are smaller; however, there is a need for a sewage pump station with a long force main.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $8,608,330. This equates to a cost of $17,496 per EDU.

6.4.11 Orwigsburg Basin –Extension No. 1B (Renningers / Adamsdale to Schuylkill Haven): Map 17K

This alternative provides sewage service to the SR61 corridor; as well as, the Adamsdale Road Area. A total of 572 EDUs would be served under this alternative. This alternative addresses three confirmed malfunctions, four (4) suspected malfunctions and seven (7) potential malfunctions. The cost per EDU is reasonable because a number of the lot sizes where the alternative services are smaller; however, there is a need for two sewage pump stations with long force mains.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $12,949,665. This equates to a cost of $22,639 per EDU.

6.4.12 Orwigsburg Basin –Extension No. 2A (Renningers to Orwigsburg): Map 17L

This alternative provides sewage service to the same area as Orwigsburg Basin – Extension 1A; however, treatment would be provided by Orwigsburg Borough rather than Schuylkill

Haven Borough. A total of 492 EDUs would be served under this alternative. This alternative addresses three (3) suspected malfunctions and seven (7) potential malfunctions. The cost per EDU is reasonable because a number of the lot sizes where the alternative services are smaller; however, the sewage pump station force main needs to be placed within a PENNDOT right-of-way, which increases cost.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $8,888,900. This equates to a cost of $18,066 per EDU.

6.4.13 Orwigsburg Basin –Extension No. 2B (Adamsdale to Orwigsburg): Map 17M

This alternative provides sewage service to the Adamsdale area only and treatment would be provided by Orwigsburg Borough. A total of 80 EDUs would be served under this alternative. This alternative addresses three (3) confirmed malfunctions and one (1) suspected malfunctions. The cost per EDU is not reasonable because a number of the lot sizes where the alternative services are larger. In addition, the sewage pump station force main is very long.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $4,645,700. This equates to a cost of $58,071 per EDU.

6.4.14 Orwigsburg Basin –Extension No. 2C (Renningers/Adamsdale to Orwigsburg): Map 17N

This alternative is a combination of the previous two alternatives A total of 572 EDUs would be served under this alternative. This alternative addresses three confirmed malfunctions, four (4) suspected malfunctions and seven (7) potential malfunctions. The cost per EDU is reasonable because a number of the lot sizes where the alternative services are smaller; however, there is a need for two sewage pump stations with long force mains.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $13,530,820. This equates to a cost of $23,655 per EDU.

6.5 Funding Methods and User Rate Analysis

In Pennsylvania, the two most common methods used to fund sewage facility construction in rural communities are low interest loans and grants from PENNVEST or the United States Department of Agriculture (USDA) Rural Development.

PENNVEST was created by the Pennsylvania Legislature to provide financing for public water, wastewater, and storm water facilities. PENNVEST also provides loans to private individuals for repair of on-lot septic systems. Securing PENNVEST financing is a competitive process whereby the applicant competes against others for the limited available funds. Priority among eligible projects is established according to the applicant's accumulation of points for the following factors: public health and safety, environmental impact, economic development, compliance, and social impact. The projects with the highest accumulated points are awarded financing. Projects providing public sewer service to older communities with a very high percentage of documented septic system malfunctions and where the properties rely on private wells for drinking water, usually receive sufficient points to be awarded financing. Once financing is awarded, PENNVEST calculates the anticipated user fee (debt service and projected total system operation and maintenance costs), compares this fee to the community's median household income, then selects the resultant financing package. PENNVEST primarily provides financing in the form of low-interest loans, but will provide some supplemental grant funding when the resultant user fee for the project exceeds a certain percentage of the municipality's median household income. PENNVEST also considers other available funding sources, such as state grant money, and the municipality's existing sewer system capital reserves, when awarding financing. Preparation of a PENNVEST financing application is a relatively lengthy and somewhat expensive process, and will require Township to undertake certain environmental assessments not required for other loans. The current terms for typical PENNVEST loans in Schuylkill County are 20 years with the interest rate for the first five years of the loan at 1.000 percent and 1.740 percent for the final 15 years. PENNVEST has offered loans at 1.000 percent for a 25 year period, depending on the available loans and grants.

Based on the 2013-2017 US Census American Community 5-Year Estimates, North Manheim Township's median household income was $65,445, compared to $49,190 for Schuylkill County, and $56,951 for Pennsylvania. PENNVEST usually uses a target user fee of 1.5% to 2% of the community's median household income when establishing financing terms. Projects with resultant user fees below the 2% target level usually do not receive supplemental grant funding from PENNVEST. Based on the 2013-2017 US Census American Community 5-Year Estimate figures, this would amount to a target user rate of between $982 ($81.81/month) and $1,308 ($109.08/month) for the Township.

USDA Rural Development provides long term (40 years) fixed rate financing for qualified municipality utility projects; eligibility based on "median household income" (MHI) of residents in the municipalities. Grant funding is available if qualified and necessary to make the project affordable. The availability of loan and grant funds is determined in Federal budget and there is significant competition among applicants in Pennsylvania for funds allocated to Pennsylvania. A local attorney and bond counsel are required to render various enforceability and tax law opinions. Interim construction financing is generally required (may be waived in certain cases) and any additional borrowing and expansion is subject to USDA Rural Development approval. There is the possibility of future graduation (loan called in) and/or a 10% Reserve Fund (10 year build-up). Any user rate adjustments are subject to USDA Rural Development approval. The current terms for USDA Rural Development loans are 40-years at an interest rate 2.5 percent.

Another funding source is either a standard municipal bond or municipal bank loan at an assumed interest rate of over a 20-year period. A bank loan is typically less expensive than a municipal bond and is usually advantages for principal amounts below $4 to $5 million dollars. A bond issue can usually be obtained

much faster than either PENNVEST or Rural Development funding and does not carry the high application, closing and ongoing administrative fees associated with these government loans.
Each of the alternatives was 12.evaluated using these three funding sources. In addition, the following items, when applicable, were also included to determine the effective user rate:

- North Manheim Township Tapping Fee of $400 per EDU
- North Manheim Township Authority user rate of $12.65 per 1,000 gallons based on water meter readings or $158.13 per quarter for unmetered connections.
- Operation and Maintenance Costs:
    - Additional administration
    - Low-pressure sewer system maintenance
    - Grinder pump maintenance
    - Pump station maintenance
    - Wastewater treatment plant operation
    - User Fee to wastewater discharge authority

Detailed user rate analysis for each alternative is provided in the Appendix J. The following provides a summary of the user rate analysis for each of the alternatives:

6.5.1 Pottsville Basin –Extension No. 1 (Hillside Drive / Cressona Road):

Table 6.4 provides a summary of the financing for this alternative. The only other financing costs were the need for additional administration fees and user fee to the Greater Pottsville Area Sewer Authority of $510 annually ($42.50 monthly). The resultant user rate is $157.72/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of the median household income (MHI) utilizing PENNVEST financing at 1.0% for 25-years is $52,161.

Table 6.4: Summary of Pottsville Basin –Extension No. 1 Financing

Description	***Costs***
EDUs	7
Construction Cost (Proportional Share)	$174,421
Tapping Fees ($400/EDU)	$297,500
Total Project Cost Financed	$171,621
User Rate per Month with No Grant	$157.72/EDU
Grant Funding	$52,161
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without grant funding since the user rate exceeds 2.0% of the median household income.

6.5.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road):

Table 6.5 provides a summary of the financing for Alternative 2. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to SCMA. The resultant user rate is $294.05/EDU per month based on PENNVEST financing at Berks County cap rates for a 20-year period. To make the project affordable, $4,162,000 in grant funding is needed for the project to result in a user rate equal to 2% of the MHI utilizing PENNVEST financing at 1.0% for 25-years.

Table 6.5: Summary of Seiders Hill Basin –Extension No. 1 Financing

Description	*Costs*
EDUs	23
Construction Cost	$1,978,975
Tapping Fees ($400/EDU)	$9,200
Total Project Cost	$1,969,775
User Rate per Month with No Grant	$450.82/EDU
Grant Funding	$1,643,092
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a majority of the project being financed through grant funding since the user rate significantly exceeds 2.0% of the median household income.

6.5.3 Cressona Basin –Extension No. 1 (Gordon Nagle Trail / Woodlawn Dr.):

Table 6.6 provides a summary of the financing for this alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the CBA. The resultant user rate is $228.41/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $767,015.

Table 6.6: Summary of Cressona Basin –Extension No. 1 Financing

Description	*Costs*
EDUs	34
Construction Cost	$1,398,320
Tapping Fees ($400/EDU)	$13,600
Total Project Cost	$1,384,720
User Rate per Month with No Grant	$228.41/EDU
Grant Funding	$767,015
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a portion of the project being financed through grant funding since the user rate significantly exceeds 2.0% of the median household income.

6.5.4 Cressona Basin –Extension No. 2 (Elmer Avenue / Morningside Drive):

Table 6.7 provides a summary of the financing for this alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the CBA. The resultant user rate is $167.09/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, $352,744 in grant funding is needed for the project to result in a user rate equal to 2% of the MHI utilizing PENNVEST financing at 1.0% for 25-years.

Table 6.7: Summary of Cressona Basin –Extension No. 2 Financing

Description	*Costs*
EDUs	38
Construction Cost	$1,058,320
Tapping Fees to Discharge Authority	$15,200
Total Project Cost	$1,043,120
User Rate per Month with No Grant	$167.09/EDU
Grant Funding	$352,744
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a portion of the project being financed through grant funding since the user rate exceeds 2.0% of the median household income.

6.5.5 Schuylkill Haven Basin –Extension No. 1 (Long Run Road):

Table 6.8 provides a summary of the financing for this alternative. Other financial costs need for implementation of this alternative are the additional administration fees, and user fee to NMTA. The resultant user rate is $302.97/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $1,122,131.

Table 6.8: Summary of Schuylkill Haven Basin –Extension No. 1 Financing

Description	*Costs*
EDUs	25
Construction Cost	$1,522,965
Tapping Fees ($400/EDU)	$10,000
Total Project Cost	$1,512,965
User Rate per Month with No Grant	$302.97/EDU
Grant Funding	$1,122,131
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a majority of the project being financed through grant funding since the user rate dramatically exceeds 2.0% of the median household income.

6.5.6 Schuylkill Haven Basin –Extension No. 2 (Haven – Fairlawn):

Table 6.9 provides a summary of the financing for this alternative. Other financial costs need for implementation of this alternative are the additional administration fees, and user fee to NMTA. The resultant user rate is $363.08/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $7,201,017.

Table 6.9: Summary of Schuylkill Haven Basin –Extension No. 2 Financing

Description	*Costs*
EDUs	138
Construction Cost	$9,413,620
Tapping Fees ($400/EDU)	$55,200
Total Project Cost	$9,358,420
User Rate per Month with No Grant	$363.08/EDU
Grant Funding	$7,201,017
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a majority of the project being financed through grant funding since the user rate dramatically exceeds 2.0% of the median household income.

6.5.7 Schuylkill Haven Basin –Extension No. 3 (Spring Street):

Table 6.10 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $181.66/EDU per month based on PENNVEST financing at Schuylkill

County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $90,266.

Table 6.10: Summary of Schuylkill Haven Basin –Extension No. 3 Financing

Description	*Costs*
EDUs	7
Construction Cost	$202,500
Tapping Fees ($400/EDU)	$2,800
Total Project Cost	$199,700
User Rate per Month with No Grant	$181.66/EDU
Grant Funding	$90,266
User Rate per Month with Grant	$109.08/EDU

This alternative is financially viable without any grant funding since the user rate is less than 2.0% of the median household income.

6.5.8 Schuylkill Haven Basin –Extension No. 4 (Manheim Road):

Table 6.11 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $133.20/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $7,196.

Table 6.11: Summary of Schuylkill Haven Basin –Extension No. 4 Financing

Description	*Costs*
EDUs	3
Construction Cost	$55,300
Tapping Fees ($400/EDU)	$1,200
Total Project Cost	$54,100
User Rate per Month with No Grant	$133.20/EDU
Grant Funding	$7,196
User Rate per Month with Grant	$109.08/EDU

This alternative is financially viable with minimal grant funding since the user rate is nearly 2.0% of the median household income.

6.5.9 Schuylkill Haven Basin –Extension No. 5 (Adamsdale Road/Memorial Drive):

Table 6.12 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $414.53/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $1,646,343.

Table 6.12: Summary of Schuylkill Haven Basin –Extension No. 5 Financing

Description	*Costs*
EDUs	26
Construction Cost	$2,063,210
Tapping Fees ($400/EDU)	$10,400
Total Project Cost	$2,052,810
User Rate per Month with No Grant	$414.53/EDU
Grant Funding	$1,646,343
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable since the amount of grant funding necessary is more than 50% of the total construction cost of the project.

6.5.10 Orwigsburg Basin –Extension No. 1A (Renningers to Schuylkill Haven):

Table 6.13 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $128.87/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $1,135,976.

Table 6.13: Summary of Orwigsburg Basin –Extension No. 1A Financing

Description	*Costs*
EDUs	492
Construction Cost	$8,608,330
Tapping Fees ($400/EDU)	$196,800
Total Project Cost	$8,411,530
User Rate per Month with No Grant	$128,87/EDU
Grant Funding	$1,135,976
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable at this time because nearly half of all the EDUs projected in this alternative are associated with the Greenview Development, which has not moved forward. If this development moves forward in the future, this alternative may become financial viable.

6.5.11 Orwigsburg Basin –Extension No. 1B (Renningers / Adamsdale to Schuylkill Haven):

Table 6.14 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $152.62/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $3,778,585.

Table 6.14: Summary of Orwigsburg Basin –Extension No. 1B Financing

Description	***Costs***
EDUs	572
Construction Cost	$12,949,665
Tapping Fees ($400/EDU)	$228,800
Total Project Cost	$12,720,865
User Rate per Month with No Grant	$152.62/EDU
Grant Funding	$3,778,585
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable at this time because nearly half of all the EDUs projected in this alternative are associated with the Greenview Development, which has not moved forward. If this development moves forward in the future, this alternative may become financial viable if grant funding can be secured.

6.5.12 Orwigsburg Basin –Extension No. 2A (Renningers to Orwigsburg):

Table 6.15 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $152.62/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $3,778,585.

Table 6.15: Summary of Orwigsburg Basin –Extension No. 2A Financing

Description	*Costs*
EDUs	492
Construction Cost	$8,888,900
Tapping Fees ($400/EDU)	$196,800
Total Project Cost	$8,692,100
User Rate per Month with No Grant	$131.50/EDU
Grant Funding	$1,000,000
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable at this time because nearly half of all the EDUs projected in this alternative are associated with the Greenview Development, which has not moved forward. If this development moves forward in the future, this alternative may become financial viable if grant funding can be secured.

6.5.13 Orwigsburg Basin –Extension No. 2B (Adamsdale to Orwigsburg):

Table 6.16 provides a summary of the financing for alternative. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to the NMTA. The resultant user rate is $316.24/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $3,363,031.

Table 6.16: Summary of Orwigsburg Basin –Extension No. 2B Financing

Description	*Costs*
EDUs	80
Construction Cost	$4,645,700
Tapping Fees ($400/EDU)	$32,000
Total Project Cost	$4,613,700
User Rate per Month with No Grant	$316.24/EDU
Grant Funding	$3,363,031
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable because a number of large lots within this area dramatically increase the cost of constructing sewer mains. The project only becomes financially viable if significant grant funding can be secured.

6.5.14 Orwigsburg Basin –Extension No. 2C (Renningers/Adamsdale to Orwigsburg):

Table 6.17 provides a summary of the financing for alternative. Other financial costs ~~need~~ for implementation of this alternative are the additional administration fees and user fee to the NMTA.

The resultant user rate is $157.31/EDU per month based on PENNVEST financing at Schuylkill County cap rates for a 20-year period. To make the project affordable, the amount of grant funding needed for the project to result in a user rate equal to 2% of MHI utilizing PENNVEST financing at 1.0% for 25-years is $4,358,984.

Table 6.16: Summary of Orwigsburg Basin –Extension No. 2B Financing

Description	*Costs*
EDUs	572
Construction Cost	$13,530,820
Tapping Fees ($400/EDU)	$228,800
Total Project Cost	$13,302,020
User Rate per Month with No Grant	$157.31/EDU
Grant Funding	$4,358,984
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable because a number of large lots within the Adamsdale area dramatically increase the cost of constructing sewer mains. The project only becomes financially viable if significant grant funding can be secured.

6.5.15 Conclusion of Financial Analysis:

Based on the financial analysis for each of the identified alternatives, none of the alternatives resulted in a user rate that was financially viable without construction grant funding; however, a number of Alternatives are viable with minimal to moderate grant funding. Because none of the alternatives are financially viable without grant funding and there is no identified sewage needs at this time, the likelihood of receiving grant funding is minimal. It is recommended that the Township implement an on-lot sewage management program over the next 5-year period in the planning area. The Township should instruct the NMTA to investigate implementation of the alternatives that are financially viable with minimal to moderate grant funding to determine if they are capable of self-funding these projects rather than seeking funding from PENNVEST or USDA Rural Development because the size of the projects are small.

6.6 Implementation

There are no known critical public health hazards associated with wastewater within North Manheim Township that need to be addressed. Implementation of an on-lot sewage management program is proposed for the first 5 years until adequate grant funding can be identified, applied for, and secured to bring user rates for any potential project within the affordable range. Completion of the other activities described in the previous sections is necessary to enable continued orderly growth in North Manheim Township and to ensure the long-term reliability of the existing public sewage system and private on-lot wastewater treatment and disposal systems.

Table 6.18 presents a tentative schedule for completion of the required activities over the next 2 years.

Table 6.18: Implementation Schedule (revise/updated as needed)

Task	***Date***
30-Day Public Comment Period for the Official Act 537 Sewage Facilities Plan Begins	November 2024
30-Day Agency Comment Period for the Official Act 537 Sewage Facilities Plan Begins	November 2024
Municipality Adopts the Official Act 537 Sewage Facilities Plan	February 2025
Submit the Adopted Official Act 537 Sewage Facilities Plan	March 2025
Receive Approval of the Official Act 537 Sewage Facilities Plan from the DEP	September 2025
Adopt On-Lot Sewage Management Ordinance	December 2025
Develop On-Lot Sewage Management Program based on Ordinance	March 2026
Begin Implementation of On-Lot Sewage Management Program	July 2026
Enter into Inter-Municipal Agreement with Cressona Borough /Cressona Borough Authority	July 2026

INSTITUTIONAL EVALUATION

7.1 Public Sewage Facilities

The existing public sanitary sewers and treatment systems serving North Manheim Township are owned and operated by multiple governmental and private entities. The sanitary sewer systems located in Schuylkill Haven and Pottsville basins are owned and operated by North Manheim Township Authority; while the sewers currently located in the Cressona Basin are owned and operated by the Cressona Borough Authority. There are three privately owned and operated systems within the Township; all three are in the Orwigsburg Basin.

7.1.1 North Manheim Township:

North Manheim Township is responsible for enforcement of Township and State regulations associated with privately owned on-lot wastewater systems. The Township out-sources Sewage Enforcement Officer services to the Township Engineer's SEO's; including all inspection, enforcement, and administrative functions necessary for maintaining property operation of these systems, with assistance from the Township solicitor on an as-needed basis.

7.1.2 North Manheim Township Authority:

The NMTA Board authorizes all improvements to the sanitary sewer systems located in the Schuylkill Haven and Pottsville basins. The NMTA has the ability to acquire, construct, improve, maintain, own and operate all public sewage facilities, per agreement, if applicable within the Township.

The NMTA Board consists of five appointed members. The Board receives support from their appointed solicitor, engineer, and Authority Representative. The Board customarily meets once per month to review and act on matters within its purview. It is the duty of the solicitor, engineer, and Authority Representative to advise and offer recommendations to the Board on matters involving the construction, improvement, and operation of the Spring Sewer System.

The NMTA has one employee, the Authority Representative. This person is responsible for handling all administrative tasks of the NMTA including collection of fees and issuance of building connection permits of new connections. The Authority out-sources all construction and maintenance activities, including system inspection, cleaning and clearing of blockages.

Sanitary sewer rates, annual budgets, and policies and procedures of the sanitary sewer system are set by the NMTA with assistance from solicitor, engineer, and Authority Representative. Formal actions are adopted or rejected by a vote of the Board, a majority vote of a quorum being required for passage.

The NMTA currently has no long-term debt associated with its sanitary sewer system. The NMTA's sewer system operation and maintenance assets as of June 13, 2023, add up to approximately $1,802,000. Sewer system revenue is generated from system user fees, tapping fees, and interest on investments. The 2023-2024 budget assumes revenues of approximately $578,000 and projected expenses of approximately $546,000.

The NMTA has enacted several regulations for use of the Sewer System. The NMTA has developed standard specifications for extensions to its sewer system that requires air testing of the extensions before properties are permitted to connect to the sewer system. The NMTA is fully empowered to enforce its rules and regulations, set user fees and take purchasing actions, raise capital for construction and operation and maintenance of facilities, and has the power to negotiate agreements with other parties. Based on a review of the Authority agreements and regulations, the NMTA has the legal authority to implement the developed wastewater alternatives.

7.1.3 Borough of Schuylkill Haven:

Through an agreement between North Manheim Township, NMTA, the Borough of Schuylkill Haven, and the Schuylkill Haven Municipal Authority, Schuylkill Haven treats sewage generated in the Schuylkill Haven basin. NMTA maintains ownership of the sewer lines. The NMTA can improve, maintain, and operate these public sewage facilities. Any future expansion to sewage facilities in the Schuylkill Haven Basin would be owned and operated by NMTA unless it is mutually agreed upon that Schuylkill Haven would take ownership of any future system expansion.

7.1.4 Borough of Orwigsburg:

Through an agreement between North Manheim Township, NMTA, the Borough of Orwigsburg, and the Municipal Authority of the Borough of Orwigsburg, Orwigsburg would treat sewage generated in the Orwigsburg basin; however, no public sewer system currently exists. NMTA would maintain ownership of any future sewer lines. The NMTA would have the ability to improve, maintain, and operate these public sewage facilities.

7.1.5 Borough of Cressona:

Through a 1990 development agreement (XAR Agreement) between North Manheim Township, NMTA, the Borough of Cressona, and the Cressona Borough Authority, sewage generated in the Chestnut Hill development is treated by Cressona. Cressona Borough Authority handles direct billing of properties within this development. There is no known

record of the dedication of the sewer lines in the Chestnut Hill development to either NMTA or Cressona Borough Authority. Through a 2017 dedication agreement (Agreement to Accept Dedication of Sewer System and Lines and Provide Sewage Service) between NMTA and Cressona Borough Authority, the portion of the public sewers within the Cressona East (Map 13C) system from the existing pump station north were dedicated to Cressona Borough Authority for ownership, operation, maintenance, and billing. No known agreement for ownership, operation, and billing exists for the portion of the Cressona East system from the existing pump station discharge point south. There is no existing intermunicipal agreement between North Manheim Township, NMTA, the Borough of Cressona, and Cressona Borough Authority.

7.1.6 Greater Pottsville Area Sewer Authority:

Through an agreement with North Manheim Township and NMTA, the Greater Pottsville Area Sewer Authority treats sewage generated in the Pottsville basin. NMTA maintains ownership of the sewer lines. The NMTA can improve, maintain, and operate these public sewage facilities. Any future expansion to sewage facilities in the Pottsville Basin would be owned and operated by NMTA unless it is mutually agreed upon that GPASA would take ownership of any future system expansion.

7.1.7 Schuylkill County Municipal Authority:

Through an agreement with North Manheim Township Authority, Seider's Hill LLC owned and operated a private system. With the acquisition of this system by the Schuylkill County Municipal Authority in 2020, SCMA can improve, maintain, and operate these public sewage facilities. An agreement between the Township, NMTA, and SCMA has been executed. Future expansion to sewage facilities in the Seiders Hill Basin are addressed in the agreement.

7.1.8 Private Systems:

There are three (3*)* privately owned wastewater treatment plants within the Township; Sammy's Mobile Home Park WWTP, Blue Mountain High School WWTP and Roadhouse 61 (formerly Bums Rush) WWTP in the Orwigsburg Basin. It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale.

7.2 Institutional Alternatives Necessary to Implement Plan

No changes to the ownership, operation, or maintenance of sewage facilities within the Township are required to effectively implement the proposed plan. No new municipal departments or municipal authorities are required to implement the proposed plan. The current arrangement of ownership and operation has satisfactorily met the Township's needs and is expected to meet the long-term needs of the Township. The functions of the Board of Supervisors of North Manheim Township

and the North Manheim Township Authority Board are anticipated to remain the same for matters related to wastewater generated within the Township. An intermunicipal agreement between the Township, NMTA, the Borough of Cressona, and Cressona Borough Authority is needed to address the public sewer options outside of the boundaries of existing agreements. It is the intent of the Township and NMTA that all future sewer extension are to be owned by NMTA and all future properties to be served shall be billed by NMTA and a cost for treatment remitted to Cressona Borough Authority.

7.3 Administrative Alternatives Necessary to Implement Plan

The following administrative activities are performed on an as needed basis.

The North Manheim Township Authority currently assesses a tapping fee to new customers proposing to connect to the sanitary sewer system. The tapping fee is meant to recover certain capital costs incurred by the NMTA to construct its sewer system. Pennsylvania Act 57 of 2003 established the procedures for calculation and assessment of sewer system tapping fees. The NMTA's existing tapping fee was established based on calculations performed in 2005 in accordance with the procedures established by Act 57 and updated in 2007. It is recommended that the NMTA regularly update its tapping fee to reflect inflation, improvements to the sewer system since the last update, and planned improvements. The Act 57 tapping fee calculation should be updated on an as-needed basis; however, the tapping fee should be recalculated at least once every 10 years.

As they currently do, the NMTA will need to continue to perform an annual review its sewer rates. These rates will need to generate sufficient revenue to finance any debt payments associated with sewer system operation and maintenance costs, as necessary. The timing and magnitude of any increase will depend on actual project costs and the final terms obtained by the NMTA for project financing.

SELECTED APPROACH

8.1 Selected Wastewater Management Approach

The selected approach to wastewater management in North Manheim Township is to continue to rely on public sewer service for those properties currently connected to public sewer; as well as those areas with current approved planning for public sewer and to implement an on-lot management program for the developed parcels currently not serviced by public sewers. Use of multiple WWTPs for treatment will continue, with no immediate change to the service basin boundaries for these facilities within the Township.

Additional public sewer service areas other than described herein are not proposed for any other portion of the Township over the next 5-years. The remainder of North Manheim Township will continue to rely on on-lot wastewater treatment and disposal systems. North Manheim Township is primarily zoned for low density development that is not conducive to extension of public sewage facilities. This combination of public sewer service for the developed area and reliance on on-lot treatment for the rural areas of the Township should meet the existing and projected 20-year needs of the Township absent the development of a large parcel of land.

Based on the analysis conducted as part of this Plan, the selected alternatives represent the most cost-effective approach, while preserving Township water resources and abiding by the vision of the Township, including natural resource preservation, established by the County and Township Comprehensive Plans. The selected alternatives will maximize use of the existing operation, maintenance, and administrative structure of the Township, while enhancing operation and maintenance through continued implementation of a sewage management program and a continued sewer system rehabilitation program.

The remaining steps needed to implement the selected wastewater management approach are as follows:

- Continue to convey wastewater from the public sewer service areas of the Township to existing WWTPs. Adjust user rates and tapping fees as needed within these areas to generate sufficient revenue to fund operational and maintenance costs of the system.
- Continue to perform routine maintenance and rehabilitation, as necessary, of the existing public sewer system to maintain adequate conveyance capacity and long-term structural integrity of the system.
- Continue to rely on on-lot wastewater treatment and disposal systems for developed properties located outside the sewer service areas.

- Develop and implement an On-Lot Management Program for continued maintenance of privately owned on-lot systems.

8.2 Selected Institutional Approach

The institutional structure currently in place appears adequate to implement the selected wastewater management alternatives; therefore, no institutional changes are required. The North Manheim Township Authority, under the direction of the Township, is capable of implementing feasible capital improvements to its sewer system, setting and enforcing regulations, setting and collecting user fees, and negotiating agreement amendments with adjacent municipalities and municipal authorities.

The remaining steps needed to implement the selected wastewater management approach are as follows:

- A adopt and implement an On-Lot Management Ordinance. A sample On-Lot Management Ordinance is presented in Appendix G. The Township should utilize this sample to develop an ordinance that both meeting regulatory requirements and the needs of the Township.
- Begin negotiations with the Borough of Cressona and Cressona Borough Authority concerning an intermunicipal agreement. The intermunicipal agreement should encompasses both the existing sewer areas within North Manheim Township that convey sewage to the Cressona Borough Authority's WWTP; as well as additional future sewage that may be generated from the currently unsewered parcels.

8.3 Selected Financing Approach

The NMTA will have to provide adequate financing for the selected approach; however, the NMTA will need to actively seek and identify grant funding sources to obtain grant/loan funds as needed to implement any of the other identified structural alternatives in the future.

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix A ■ Act 537 Maps

CITY OF POTTSVILLE
NORWEGIAN TOWNSHIP
CITY OF POTTSVILLE
PALO ALTO BOROUGH
EAST NORWEGIAN TOWNSHIP
BLYTHE TOWNSHIP
BRANCH TOWNSHIP
WAYNE TOWNSHIP
NORTH MANHEIM TOWNSHIP
NORTH MANHEIM TOWNSHIP
MOUNT CARBON BOROUGH
NORTH MANHEIM TOWNSHIP
WEST BRUNSWICK TOWNSHIP
CRESSONA RD
MAIN ST
TIMBER RD
CRESTVIEW DR
FOREST RD
ROUTE 61 S
BROKHOFF RD
TUMBLING RUN RD
RYON LN ROUTE 698
SPARROW LN
PANTHER VALLEY RD
BECKVILLE RD
GORDON NAGLE TR
APPLE LN
ROUTE 61 S
L'AKE ST
W SECOND MTN RD
ACORN LN
E SECOND MTN RD
MARSHA AV
UNIVERSITY DR
KEYSTOKER LN
BUILTWELL RD
MARKET RD
CHESTNUT ST
CRESSONA BOROUGH
ZERBE ST
HAWK LN
LAMAR LN
LONG RUN RD
E MAIN ST
Pear St
SCHUYLKILL HAVEN BOROUGH
W MARKET ST
ORWIGSBURG BOROUGH
S GREENVIEW RD
ROUTE 61
ROUTE 61
ROUTE 61 S
W ADAMSDALE RD
E ADAMSDALE RD
NORTH MANHEIM TOWNSHIP
SOUTH MANHEIM TOWNSHIP
NORTH MANHEIM TOWNSHIP
SOUTH MANHEIM TOWNSHIP
LANDINGVILLE BOROUGH
NORTH MANHEIM TOWNSHIP
WEST BRUNSWICK TOWNSHIP

N
W
E
S

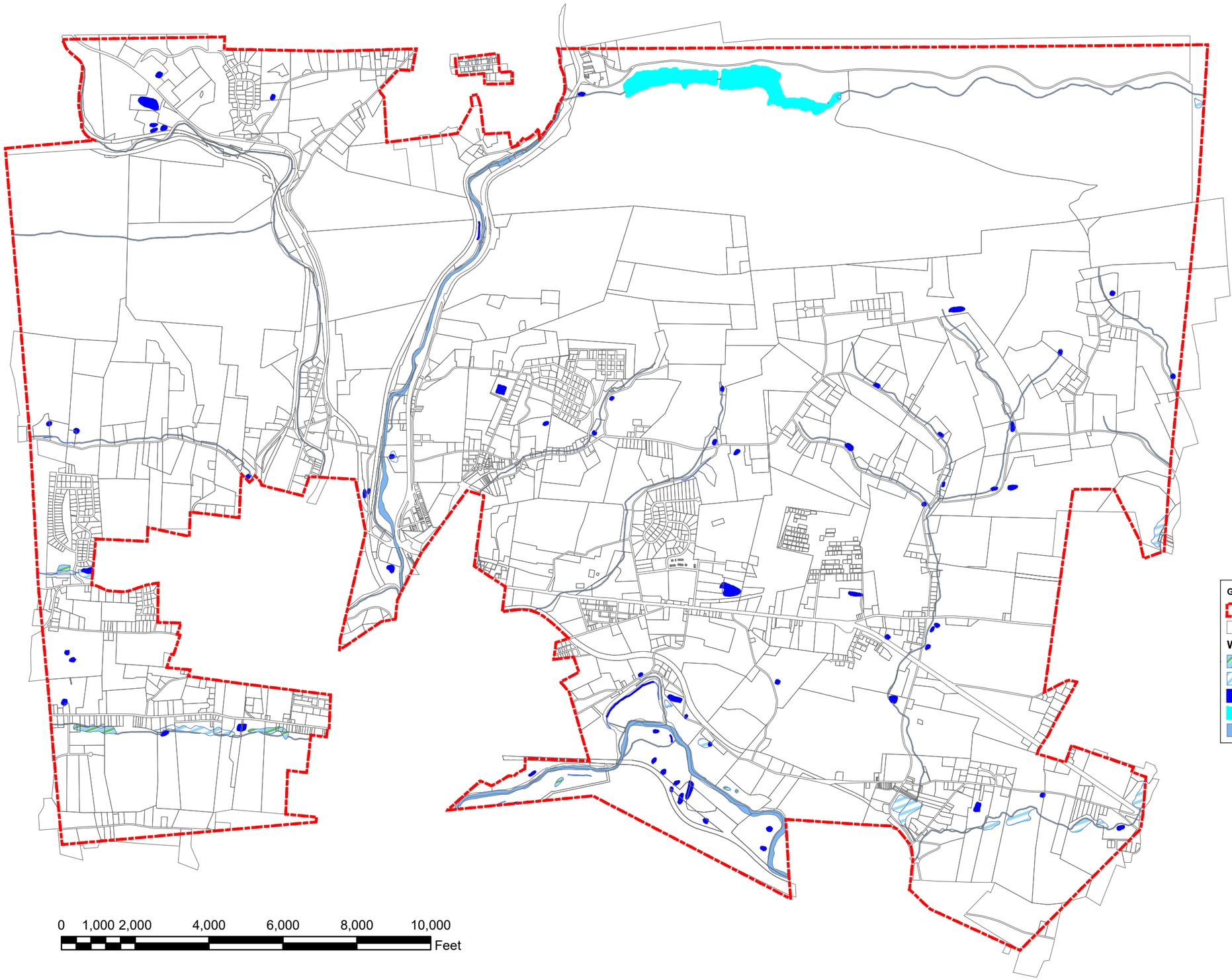
General Legend
- Municipal Boundary
- Parcels
- Roads
- Streams
- Lakes

0 1,000 2,000 4,000 6,000 8,000 10,000
Feet

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 1
GENERAL OVERVIEW
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



General Legend

- Municipal Boundary
- Parcels

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 2
WATER BODIES / WETLANDS
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

N
W
E
S

0 1,000 2,000 4,000 6,000 8,000 10,000
Feet

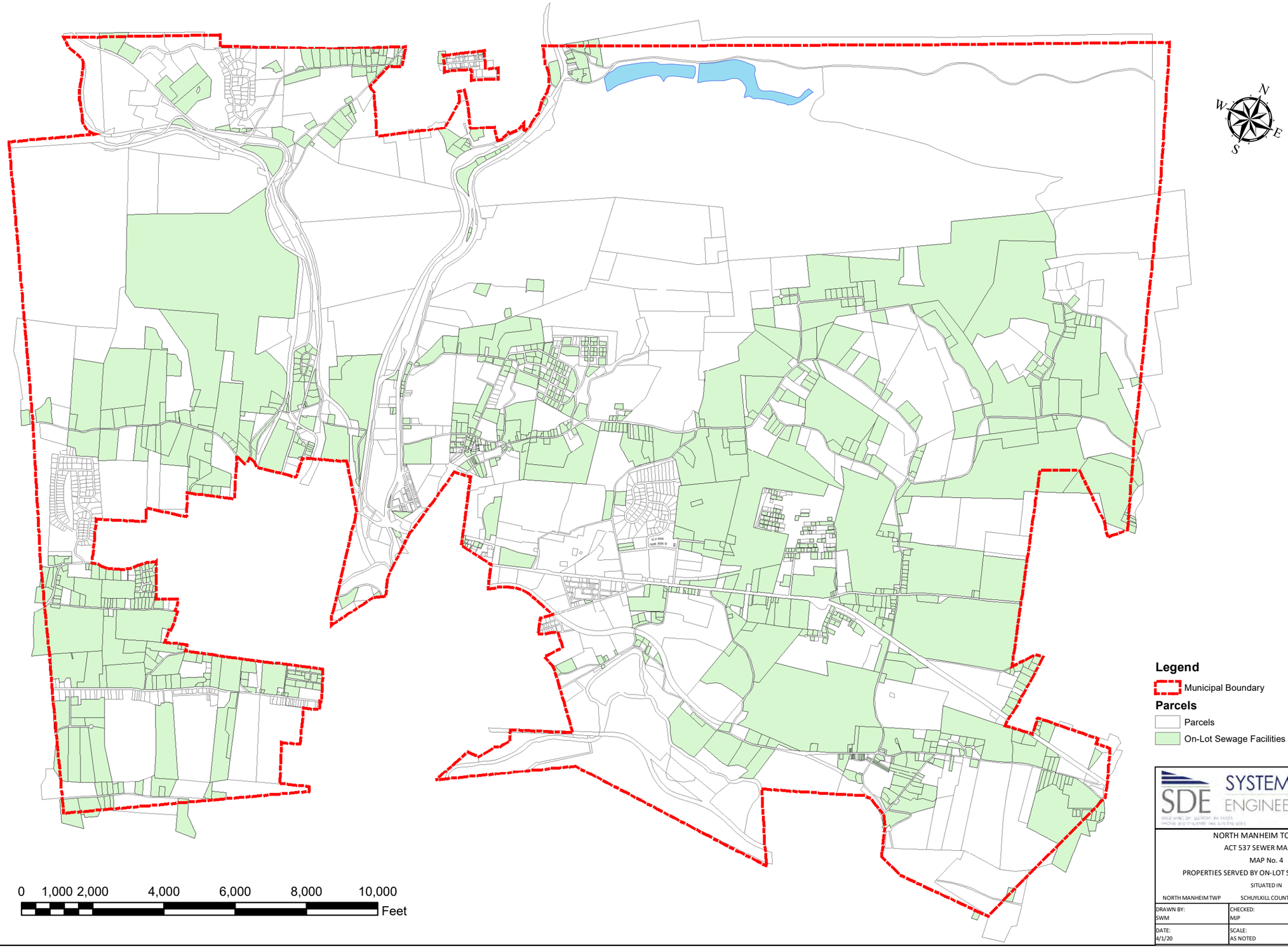
Legend

- Municipal Boundary
- Parcels
- Hydric Soils
- Soils with Hydric Inclusions

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 3
HYDRIC SOILS & HYDRIC SOILS WITH INCLUSIONS
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



Legend

Municipal Boundary

Parcels

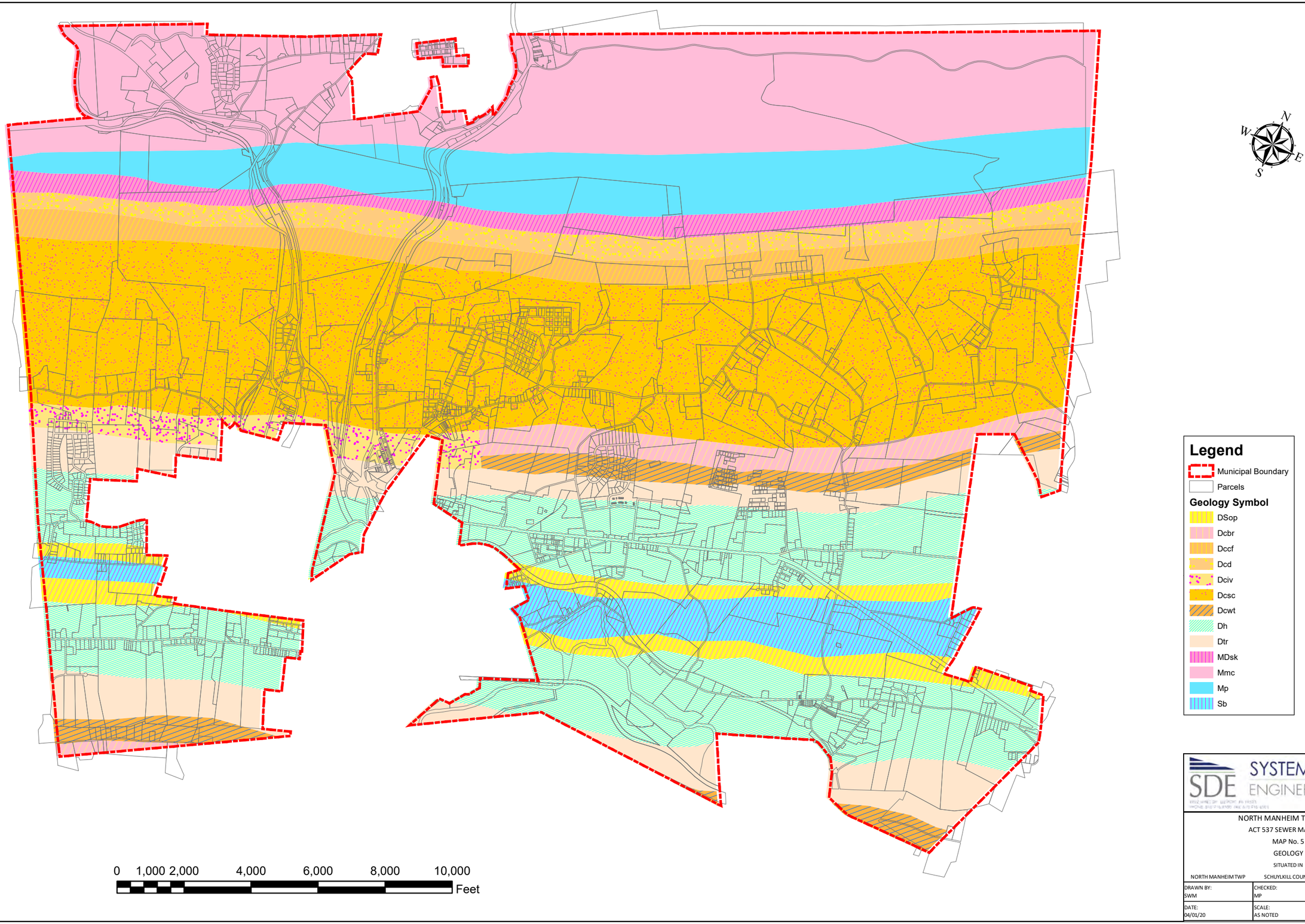
Parcels

On-Lot Sewage Facilities

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 4
PROPERTIES SERVED BY ON-LOT SEWAGE FACILITIES
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

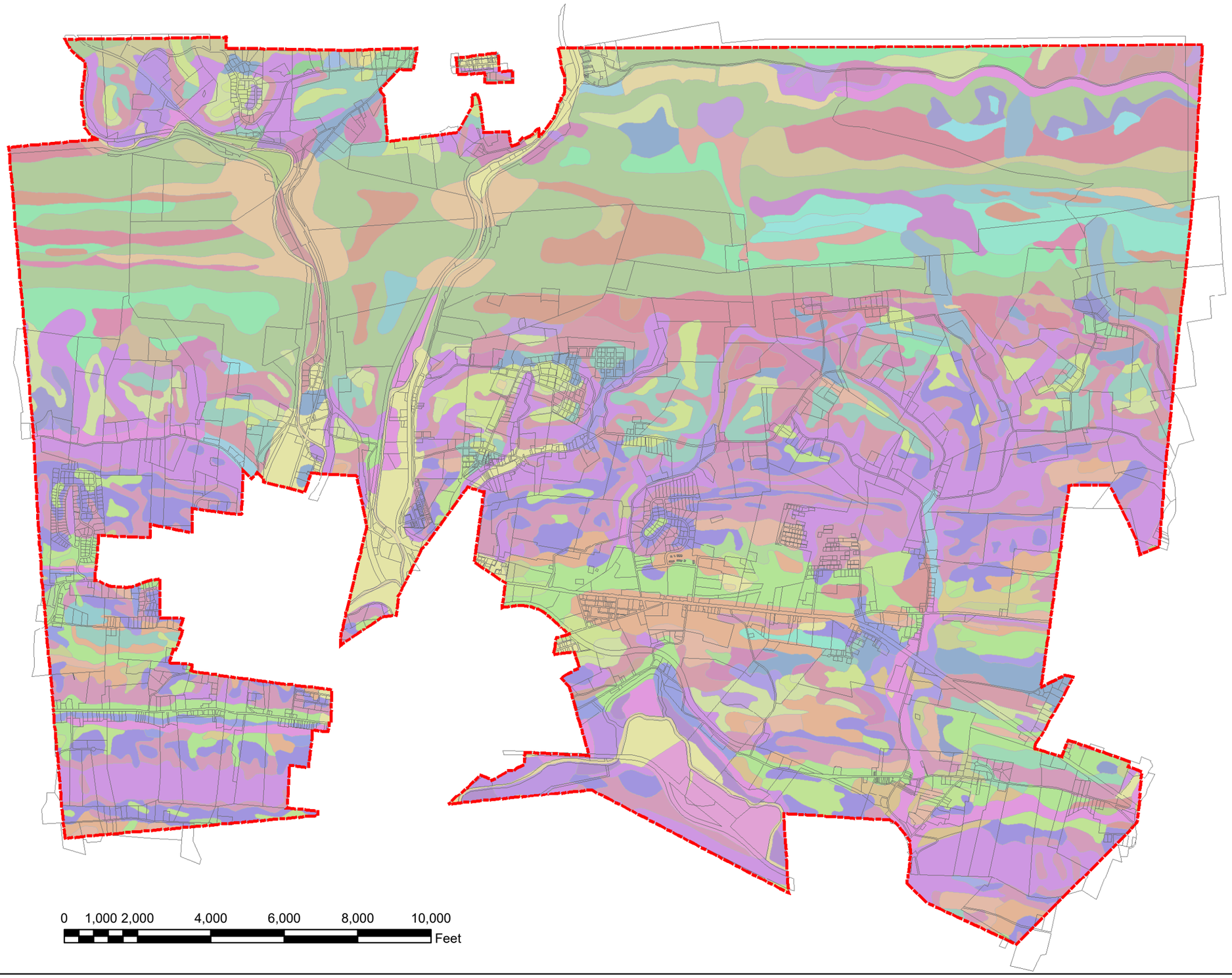
DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 4/1/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 5
GEOLOGY
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MP	APPROVED: MP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



General Legend

- Municipal Boundary
- Parcels

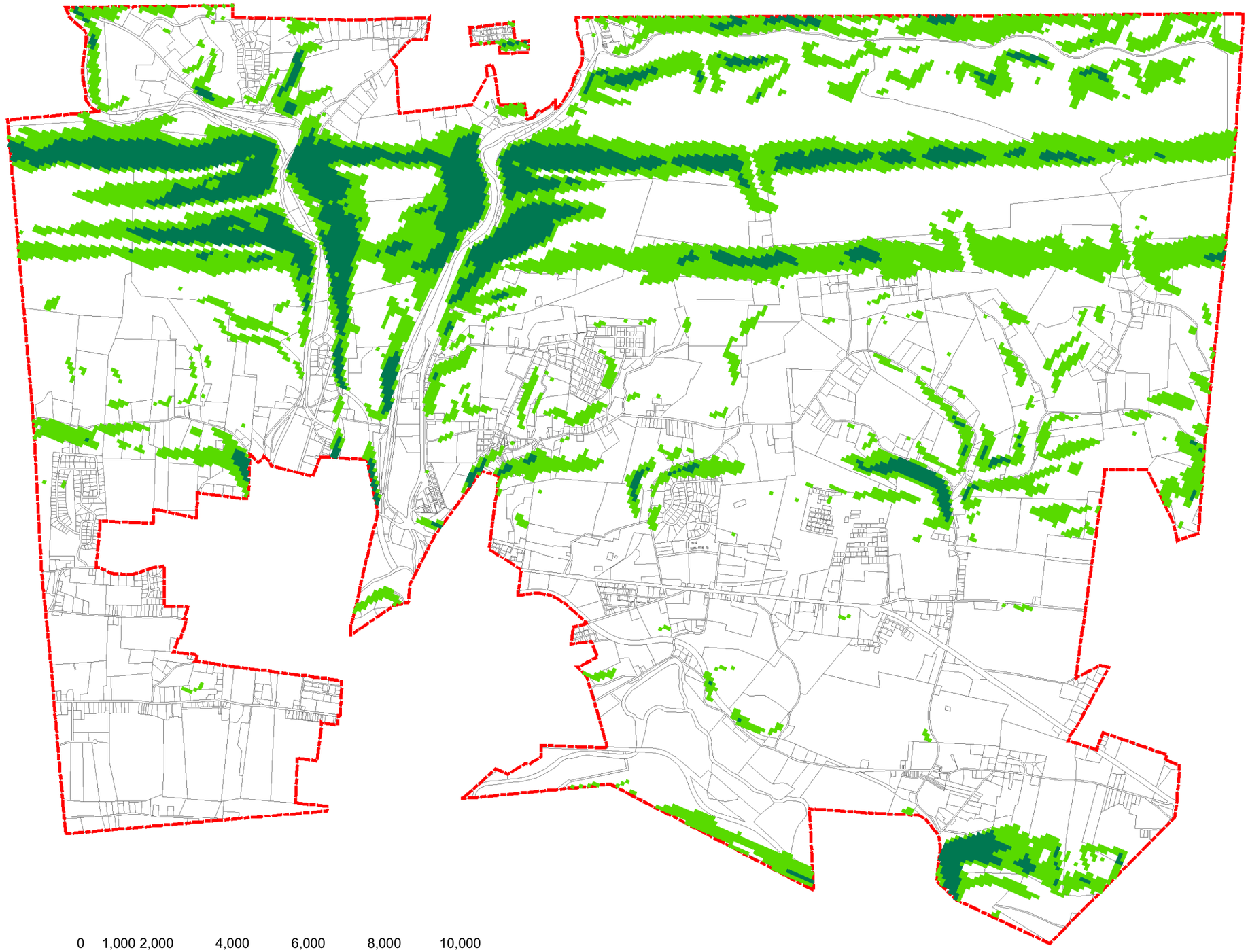
Soils Legend

Soils						
AeB	BuB	DkB	KeB	LgC	ShA	
AeC	BuC	DkC	KeC	LgD	ShB	
AgA	BxB	Ds	KvB	LhB	UD	
AgB	BxD	Du	KvC	LhC	UF	
At	CaB	HaB	LaB	MeB	UU	
Ba	CaC	HaC	LdB	MeC	W	
BeB	CaD	HaD	LdC	MeD	WKF	
BeC	DMF	HeD	LeB	MkB	WaB	
BeD	DR	HfB	LeC	MkC	WaC	
	DeC	HfC	LgB	Ph		

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 6
SOILS
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: As Noted	DRAWING NUMBER: D-17-0164-0113



General Legend

Steep Slopes

- < 25%
- 25% - 40%
- > 40%
- Municipal Boundary
- Parcels

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 7
STEEP SLOPES
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY:	CHECKED:	APPROVED:
SWM	MJP	MGP
DATE:	SCALE:	DRAWING NUMBER:
04/01/20	AS NOTED	D-17-0164-0113

General Legend

- Municipal Boundary
- Parcels

Soils

Soil Suitability

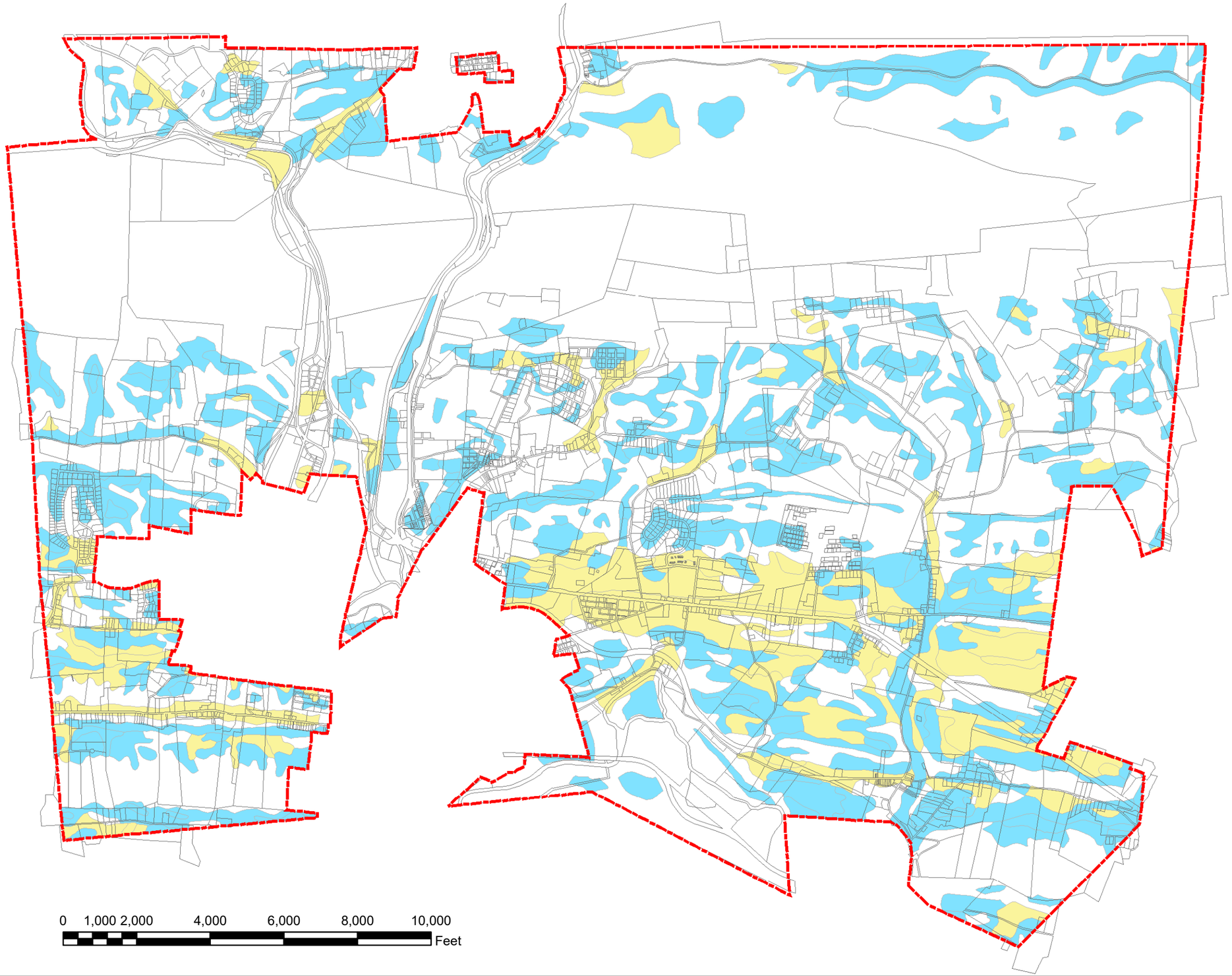
- Suitable
- Marginally Suitable
- Unsuitable

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 8
SOIL SUITABILITY
SITUATED IN

NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



General Legend

- Municipal Boundary
- Parcels

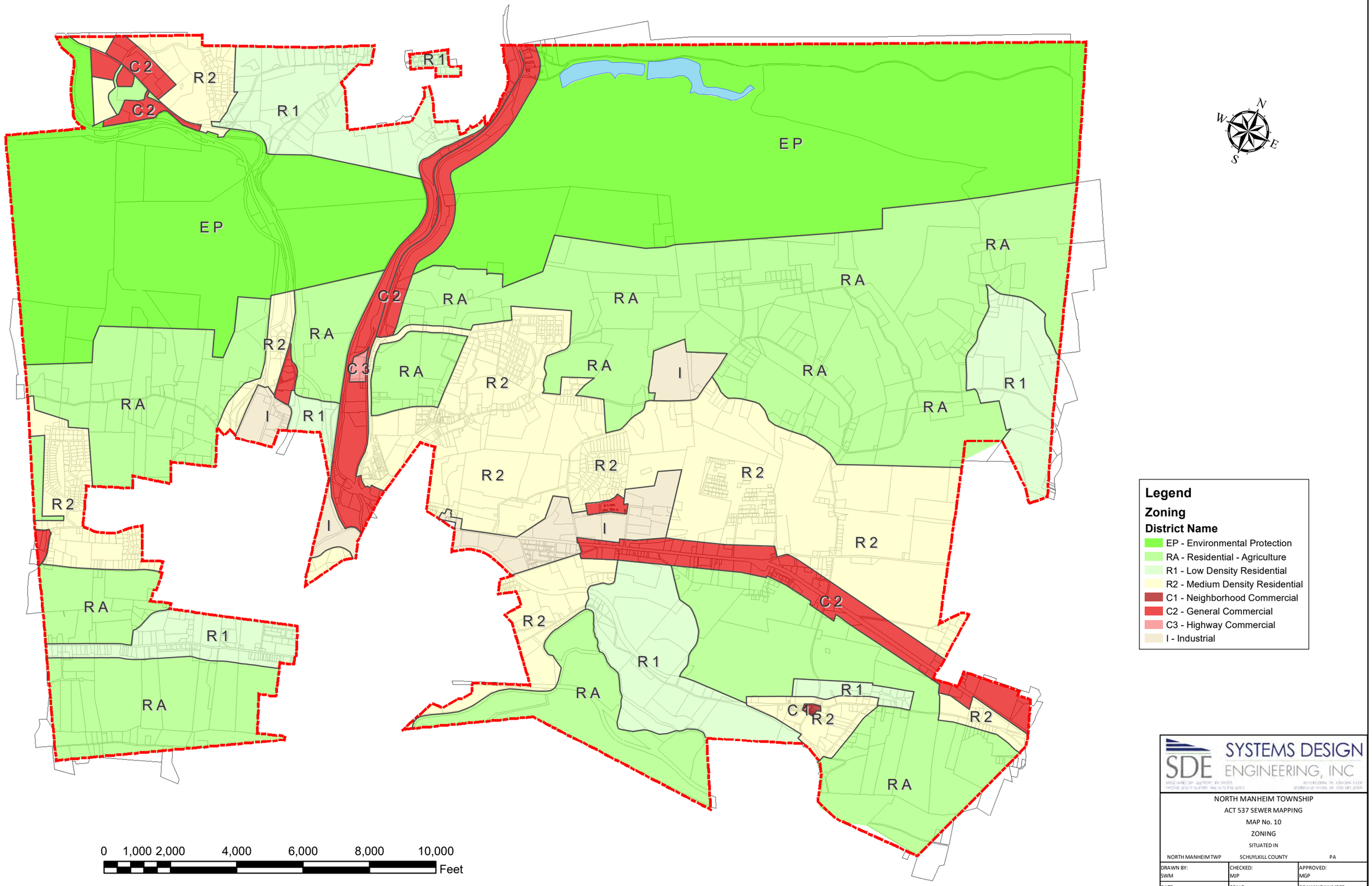
Soils

- *Soils of Statewide Importance*
- *Prime Farmland*

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 9
PRIME FARMLAND / SOILS OF STATEWIDE IMPORTANCE
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY:	CHECKED:	APPROVED:
SWM	MJP	MGP
DATE:	SCALE:	DRAWING NUMBER:
04/01/20	AS NOTED	D-17-0164-0113



SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 10
ZONING
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

Water
Water
Tumbling Run Reservoir
Tumbling Run Reservoir
Schuylkill River
Water
Tumbling Run
Water
Water
Water
Panther Creek
West Branch
Schuylkill River
Mahonmey Creek
Water
Water
Mahannon Creek
Beaver Creek
Water
Schuylkill River
Mahannon Creek

N
W
E
S

LEGEND

- Parcels
- Municipal Boundary
- **Flood Hazard Zone**
- Lakes
- A
- Streams
- AE
- X

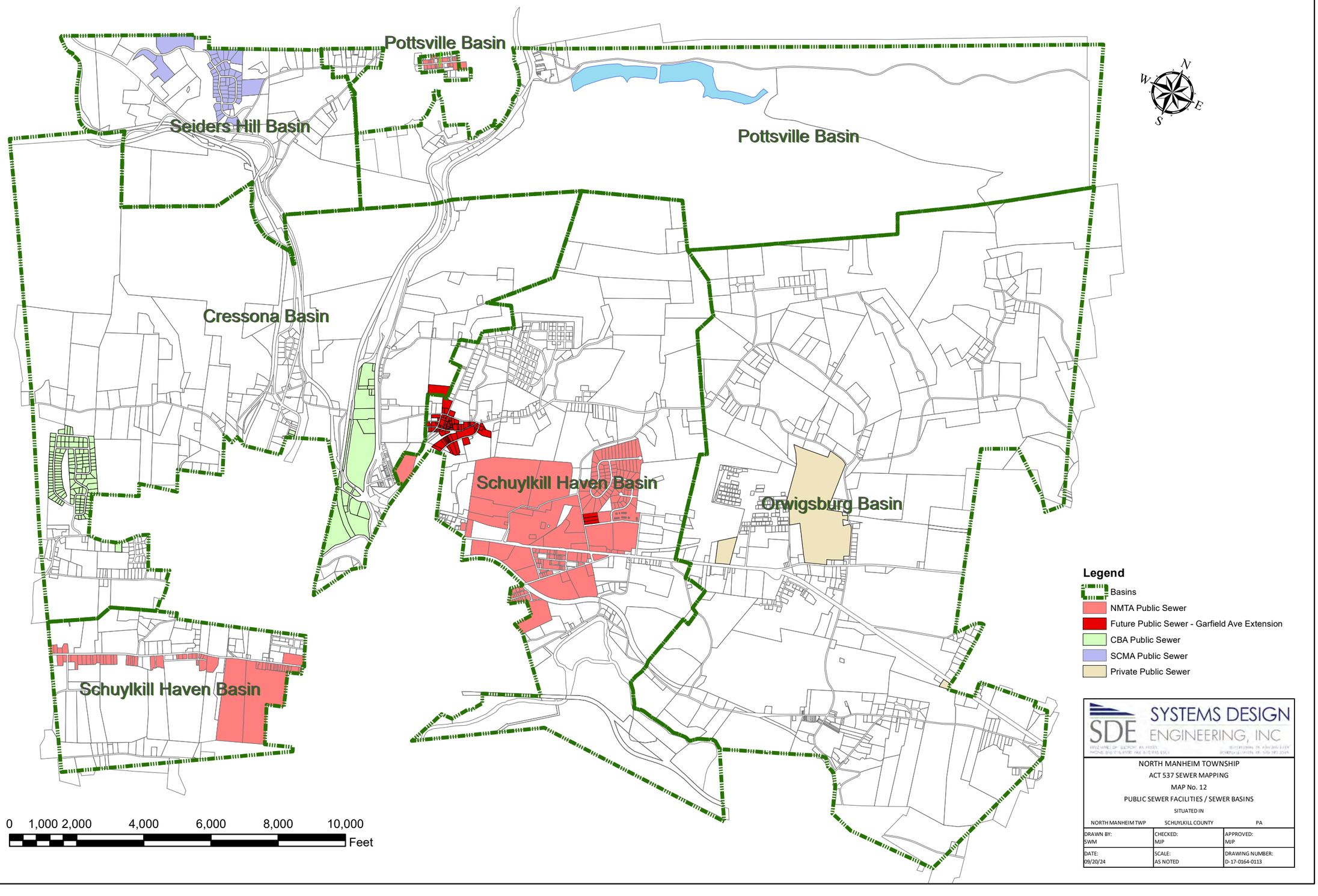
0 950 1,900 3,800 5,700 7,600 9,500
Feet

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 11
FLOOD HAZARD AREAS
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

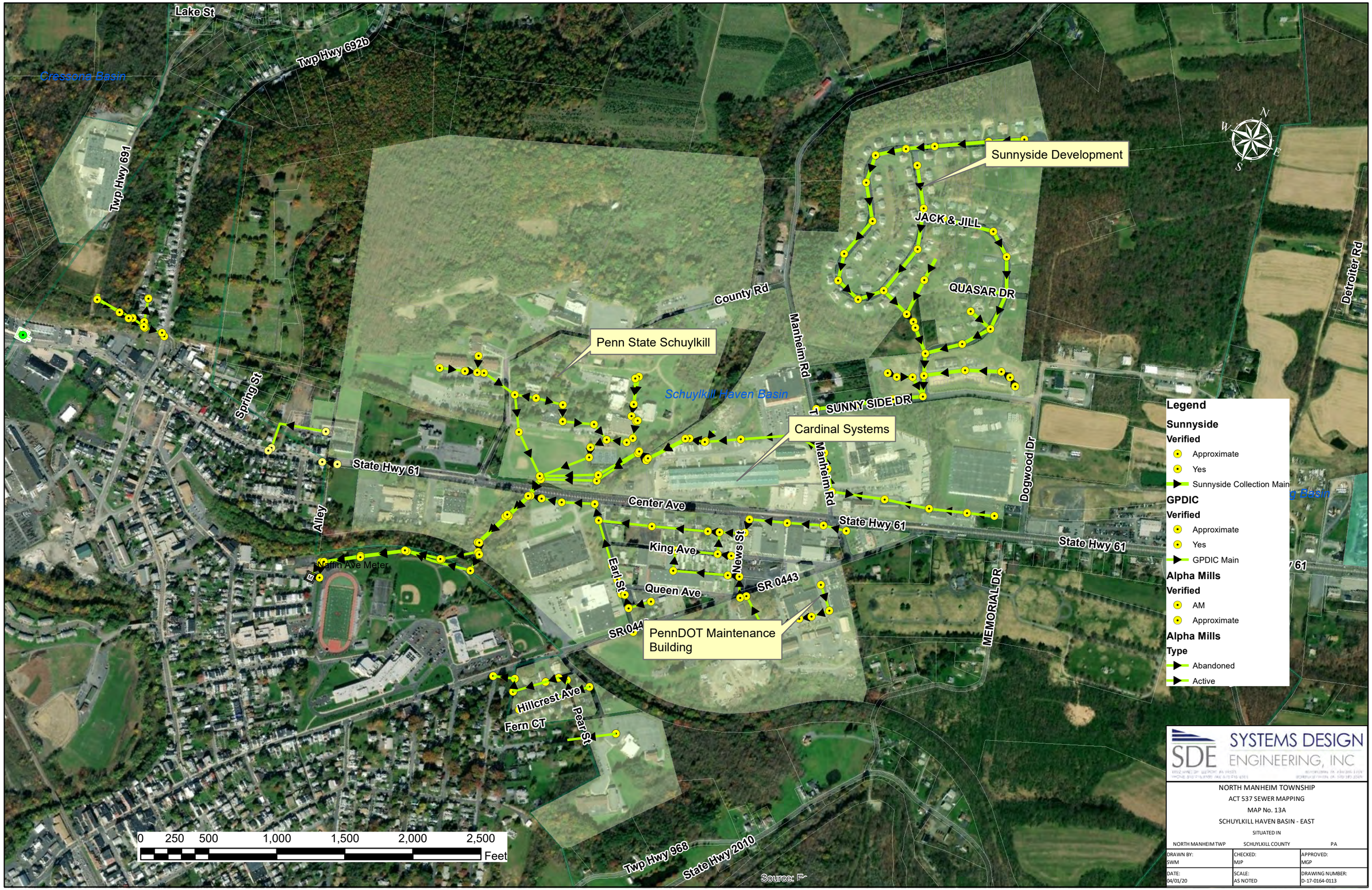
DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 12
PUBLIC SEWER FACILITIES / SEWER BASINS
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY:	CHECKED:	APPROVED:
SWM	MJP	MJP
DATE:	SCALE:	DRAWING NUMBER:
09/20/24	AS NOTED	D-17-0164-0113



SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 13A
SCHUYLKILL HAVEN BASIN - EAST
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

Rt 5

Cressona Basin

MARY ANN HILL RD

Shady Lane Rd

EAGLE LN

HAWK LN

KRAFT LN

Graeff St

GLADYS LN

LAMAR LN

State Hwy 443

State Hwy 443

State Hwy 443

STATE HWY 443

State Hwy 443

STATE HWY 443

WTMA Meter

WTMA Meter

Bill's Produce

Cleveland St. Meter

Cleveland St Meter

Bensinger Rd

Schuylkill Haven Basin

Schuylkill Mountain

Source: Fr

0 195 390 780 1,170 1,560 1,950

Feet

Legend

Long Run Collection Main

LongRun

Entity, Verified

- LR, Approximate
- LR, Yes
- WAYNE TWP, Yes
- SCHUYLKILL HAVEN, Yes

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP

ACT 537 SEWER MAPPING

MAP No. 13B

SCHUYLKILL HAVEN BASIN - WEST

SITUATED IN

NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

Sands Ford

Northeast Prestressed Products

Cressona Mall

Hydro Extrusions

Cressona Basin

Schuylkill Haven Basin

Beckville Rd

State Hwy 901

Twp Hwy 708

Sillyman St

Twp Hwy 682

GORDON NAGLE TRAIL

River St

Water St

State Hwy 3004

State Hwy 61

7 Stars Rd T-694

SR 2006

State Hwy 2006

Lake St

Dove St

4th St

Twp Hwy 692a

Twp Hwy 692b

Twp Hwy 691

Spring

RAILROAD ST

PS

N

W

E

S

0 250 500 1,000 1,500 2,000 2,500

Feet

Source: F

Legend

Cressona Mall

Entity, Verified

- CM, Approximate
- CM, Yes
- Schuylkill Haven, Yes
- PS, Yes

Cressona Mall Collection Main

Forcemain

- No
- Yes
- RiverSt
- River Street
- Municipal Boundary

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP

ACT 537 SEWER MAPPING

MAP No. 13C

CRESSONA BASIN - EAST

SITUATED IN

NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

Centerfield Drive

Chestnut Hill Development

Cressona Basin

Stony Run Road

Cross Creek Drive

Cross Creek Drive

Chestnut Street Market

SR3002

R&J Transportation

Chestnut St

Rt 5

Elmer Ave

Florence Cir

e Hwy 183

0 150 300 600 900 1,200 1,500

Feet

N

W

E

S

Legend

Point

PS

Chestnut Hill

Chestnut Hill Collection Main

Type

Force Main

Gravity

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP

ACT 537 SEWER MAPPING

MAP No. 13D

CRESSONA BASIN - WEST

SITUATED IN

NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY:	CHECKED:	APPROVED:
SWM	MJP	MGP
DATE:	SCALE:	DRAWING NUMBER:
04/01/20	AS NOTED	D-17-0164-0113

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 13E
POTTSVILLE BASIN
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

Luther Ridge at Seiders Hill

Schuylkilll Conservation District Office

Green Valley Nursing Home

Seiders Hill Development

Jackson Road

State Hwy 901

Twp Hwy 711

Seiders Hill Basin

Cressona Basin

Twp Hwy 706

Gordon Nagle Rd

RED HORSE RD

GLENWORTH RD

Glenworth Rd

Sajer Road

QUANDEL CORP RD EXT

0 125 250 500 750 1,000 1,250 Feet

Legend

SeidersHill

Entity

- Manhole
- Pump Station

Type

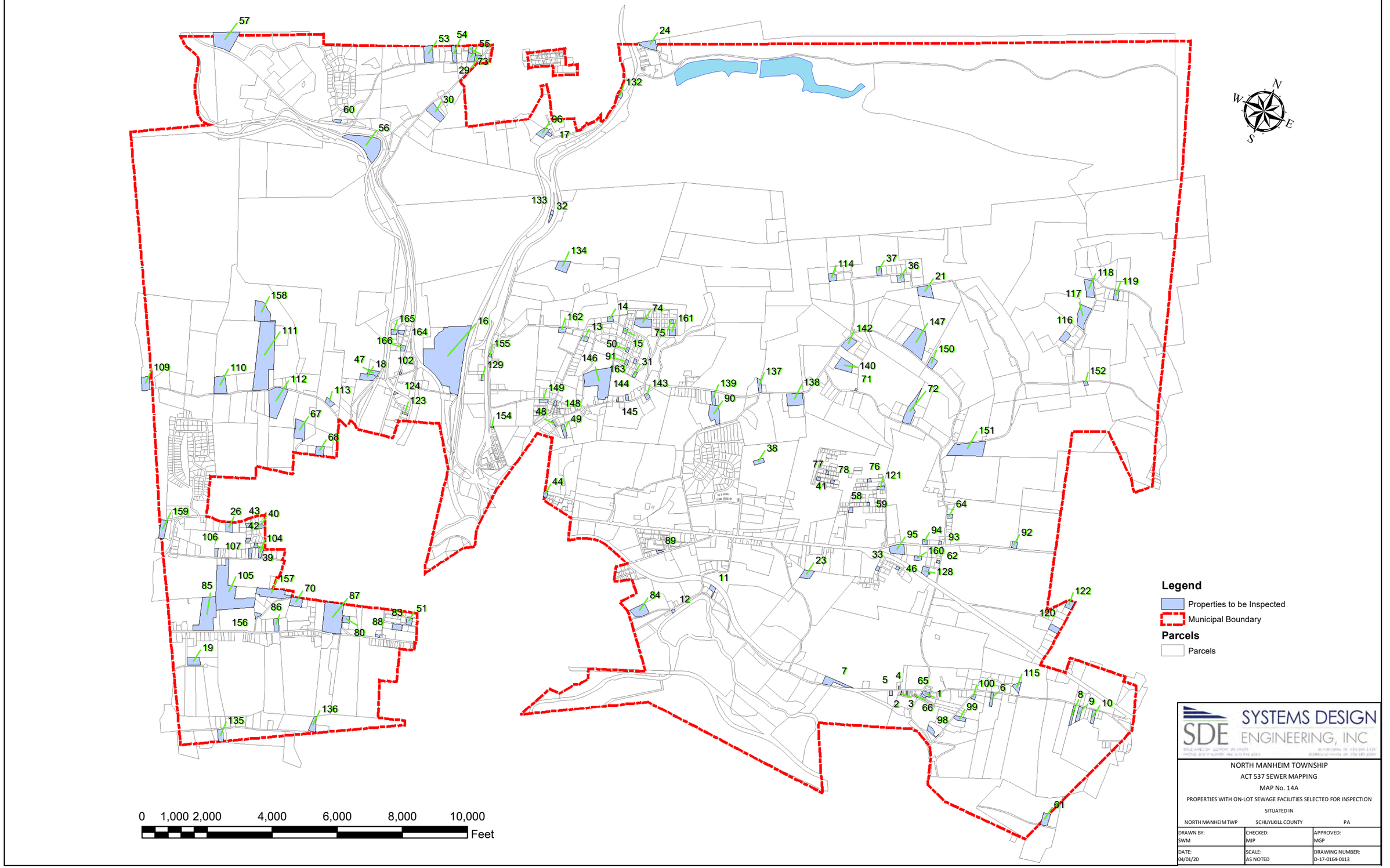
- Force Main
- Collection Main

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 13F
SEIDERS HILL BASIN
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

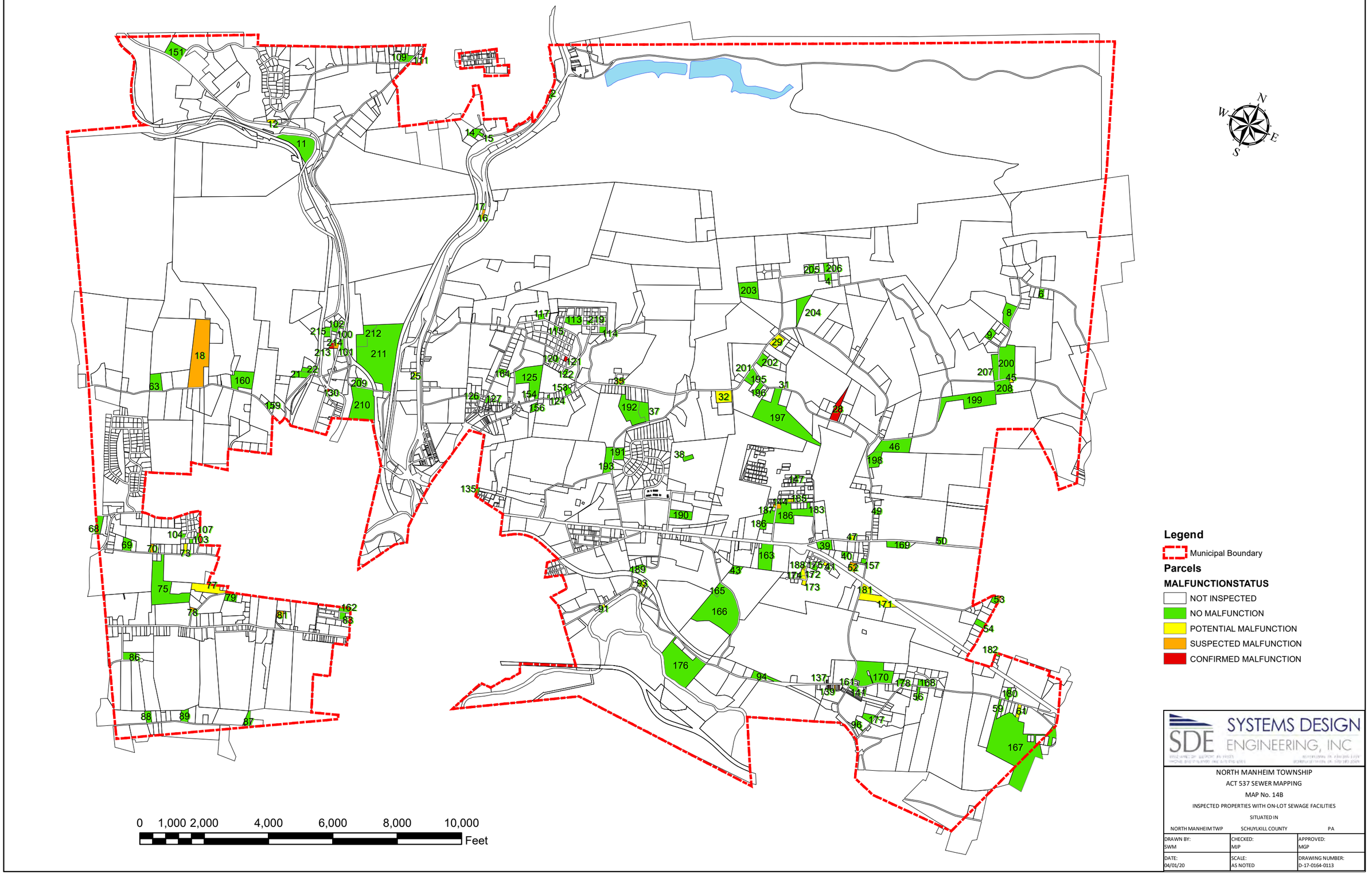
DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

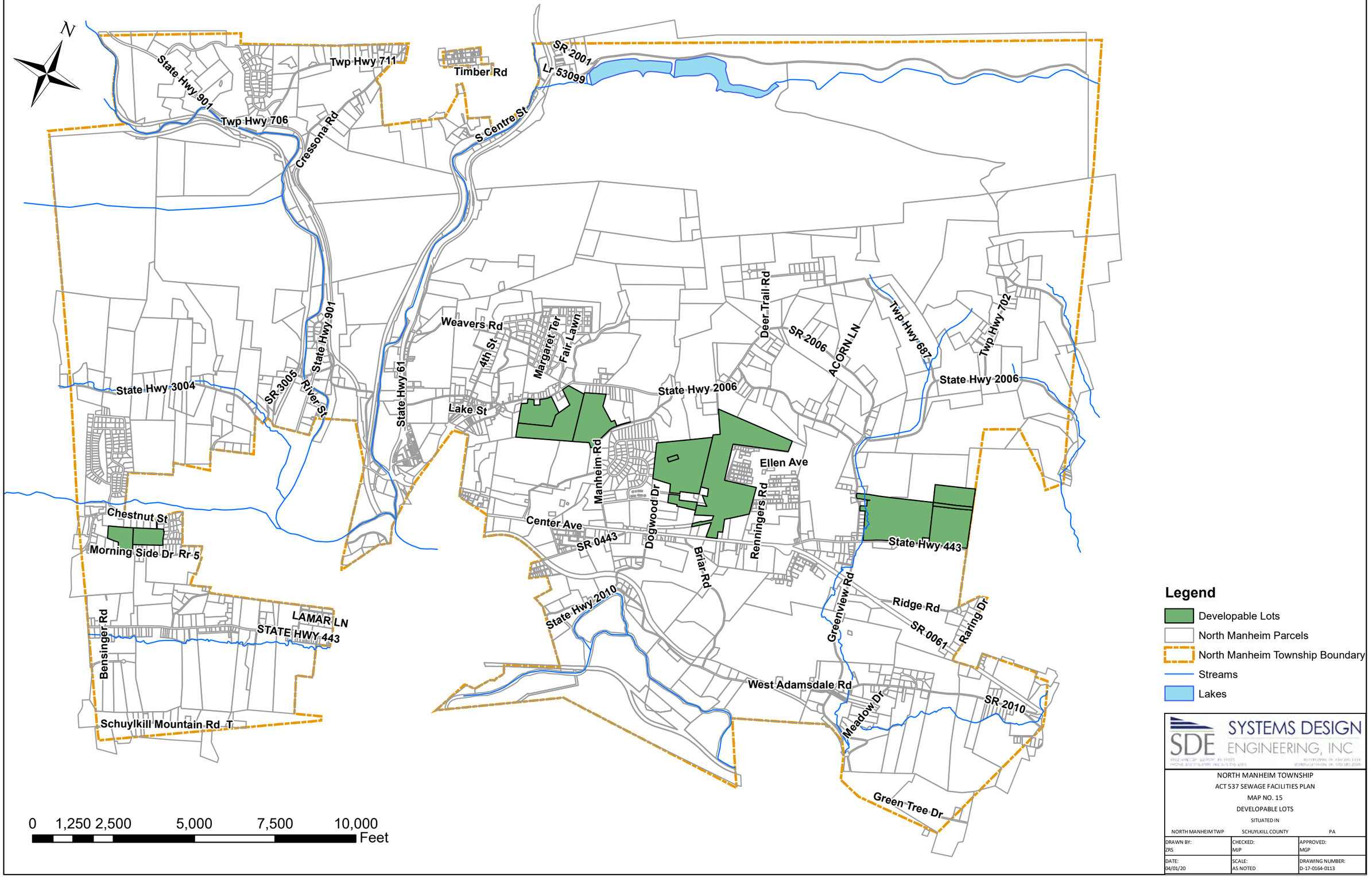


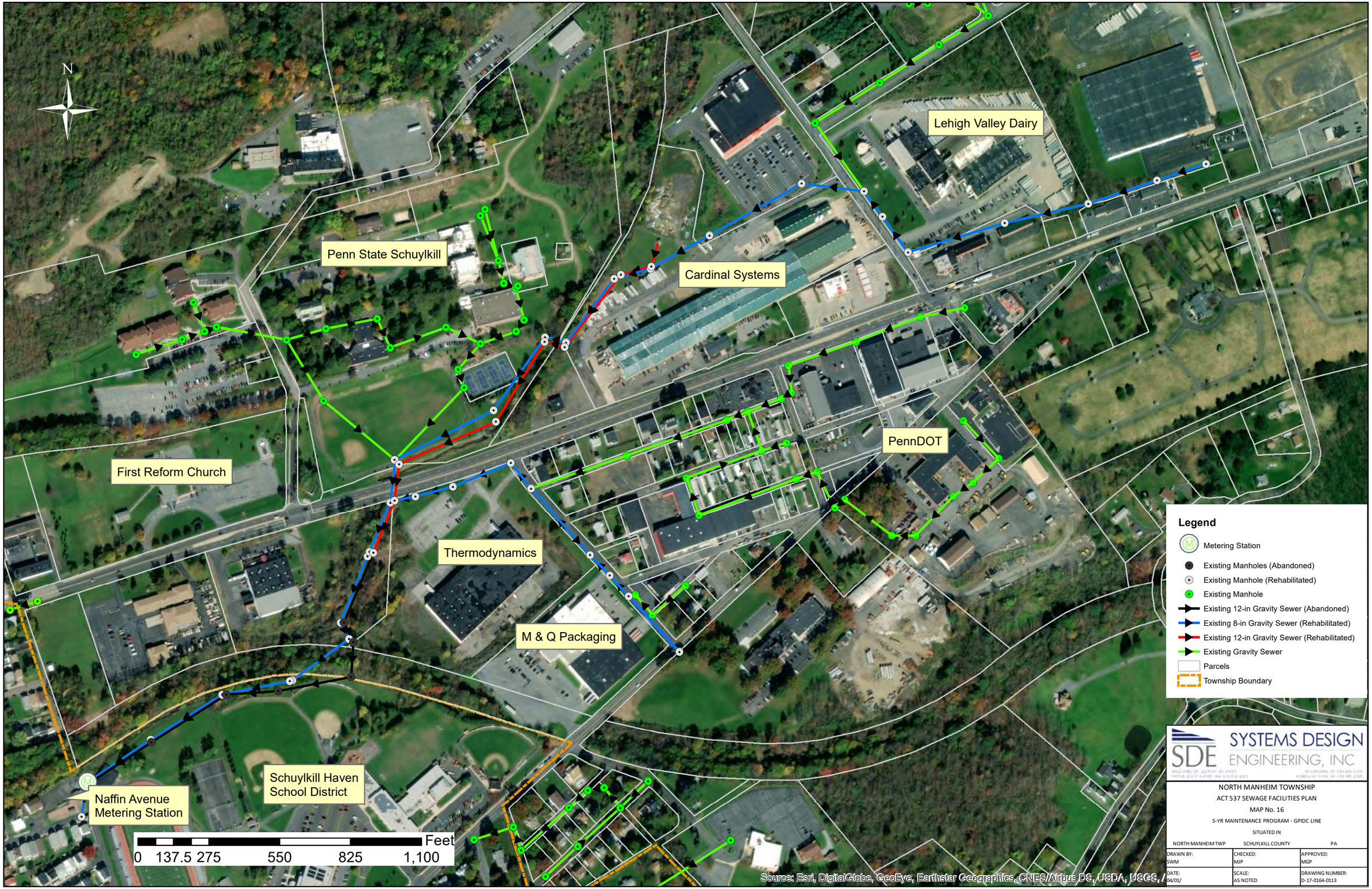
SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 14A
PROPERTIES WITH ON-LOT SEWAGE FACILITIES SELECTED FOR INSPECTION
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113


N
W
E
S
0 1,000 2,000 4,000 6,000 8,000 10,000
Feet
Legend
Municipal Boundary
Parcels
MALFUNCTIONSTATUS
NOT INSPECTED
NO MALFUNCTION
POTENTIAL MALFUNCTION
SUSPECTED MALFUNCTION
CONFIRMED MALFUNCTION
SYSTEMS DESIGN ENGINEERING, INC
SDE
NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 14B
INSPECTED PROPERTIES WITH ON-LOT SEWAGE FACILITIES
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA
DRAWN BY: SWM
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113


N
State Hwy 901
Twp Hwy 711
Timber Rd
SR 2001
LR 53099
Twp Hwy 706
Cressona Rd
S Centre St
State Hwy 901
Weavers Rd
4th St
Margaret Ter
Fair Lawn
Deer Trail Rd
SR 2006
ACORN LN
Twp Hwy 687
Twp Hwy 702
State Hwy 3004
SR 3005
River St
State Hwy 61
Lake St
State Hwy 2006
State Hwy 2006
Manheim Rd
Ellen Ave
Chestnut St
Morning Side Dr Rr 5
Center Ave
SR 0443
Dogwood Dr
Briar Rd
Renningers Rd
State Hwy 443
Bensinger Rd
LAMAR LN
STATE HWY 443
State Hwy 2010
Greenview Rd
Ridge Rd
SR 0061
Raring Dr
West Adamsdale Rd
Meadow Dr
SR 2010
Schuylkill Mountain Rd T
Green Tree Dr
0 1,250 2,500 5,000 7,500 10,000
Feet
Legend
Developable Lots
North Manheim Parcels
North Manheim Township Boundary
Streams
Lakes
SDE SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 15
DEVELOPABLE LOTS
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA
DRAWN BY: ZRS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113



SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP No. 16
5-YR MAINTENANCE PROGRAM - GPIDC LINE
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

DRAWN BY:	CHECKED:	APPROVED:
SWM	MJP	MGP
DATE:	SCALE:	DRAWING NUMBER:
04/01/	AS NOTED	D-17-0164-0113

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17A
POTTSVILLE BASIN - EXTENSION NO. 1
HILLSIDE DRIVE / CRESSONA ROAD
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

N
W
E
S

Jackson Road

Seiders Hill

Sajer Road

RED HORSE RD

GLENWORTH RD

Twp Hwy 711

Cressona Rd

City of Pottsvil

Hillside SPCA

Twp Hwy 696

Twp Hwy 706

State Hwy 901

Glenworth Rd

Gordon Nagle Rd

Seiders Hill WWTP

0 125 250 500 750 1,000
Feet

Source: E

Legend

- Future Manholes
- Existing Sewer Forcemains

Type

- Future Force Main
- Future Gravity
- Existing Sewer Manholes
- Existing Sewer Mains
- North Manheim Parcels

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17B
SEIDERS HILL BASIN - EXTENSION NO. 1
GLENWORTH ROAD / SPCA ROAD
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17C
CRESSONA BASIN - EXTENSION NO. 1
GORDON NAGLE TRAIL / WOODLAWN DRIVE
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

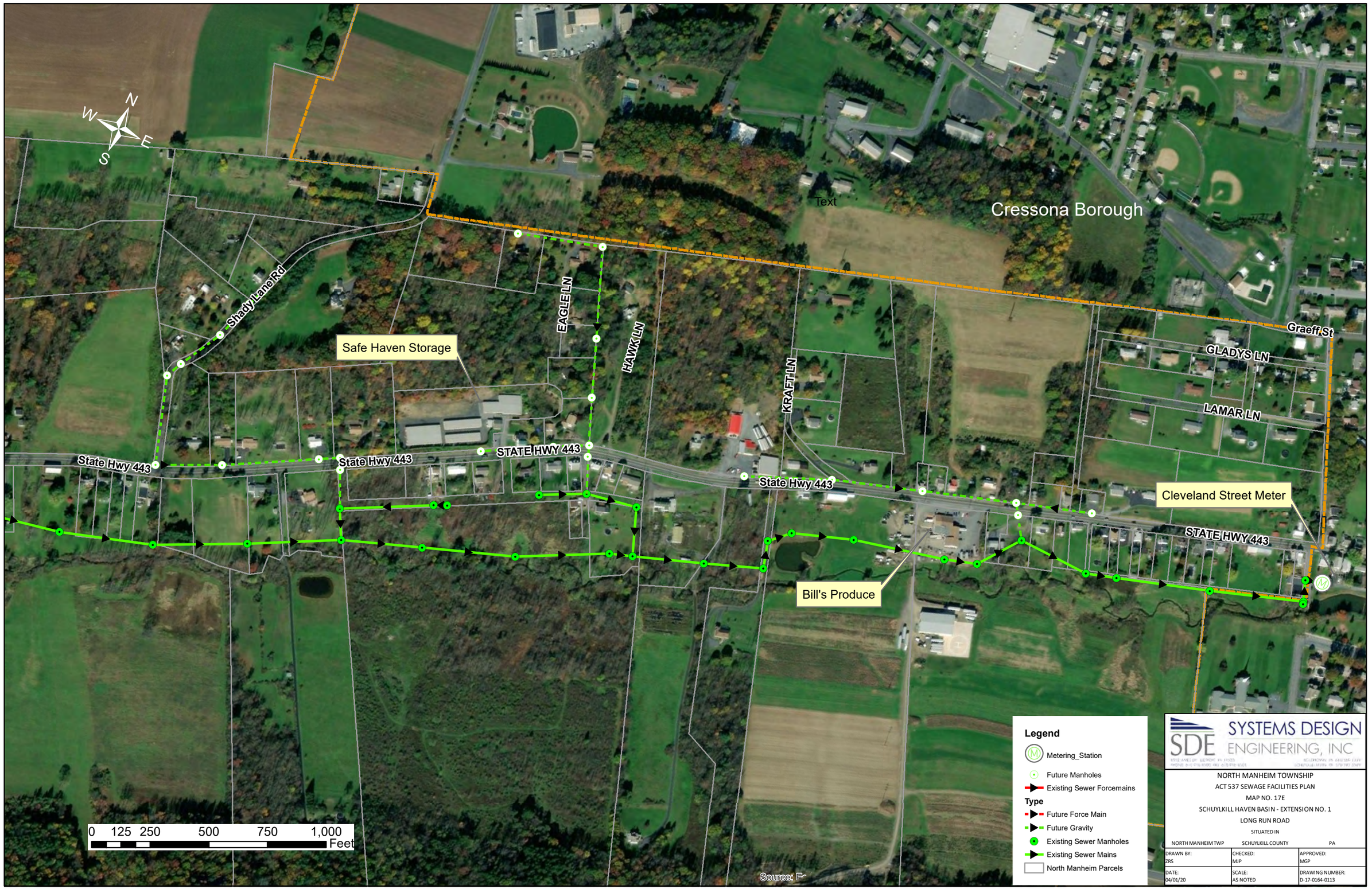
DRAWN BY: ZRS	CHECKED: MJP	APPROVED:
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17D
CRESSONA BASIN - EXTENSION NO. 2
ELMER AVENUE/MORNINGSIDE DRIVE
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED:
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113


N
W
E
S
Text
Cressona Borough
Shady Lane Rd
Safe Haven Storage
EAGLE LN
HAWK LN
KRAFT LN
Graeff St
GLADYS LN
LAMAR LN
State Hwy 443
State Hwy 443
STATE HWY 443
State Hwy 443
STATE HWY 443
Cleveland Street Meter
Bill's Produce
0 125 250 500 750 1,000
Feet
Source: F
Legend
Metering_Station
Future Manholes
Existing Sewer Forcemains
Type
Future Force Main
Future Gravity
Existing Sewer Manholes
Existing Sewer Mains
North Manheim Parcels
SDE SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17E
SCHUYLKILL HAVEN BASIN - EXTENSION NO. 1
LONG RUN ROAD
SITUATED IN
NORTH MANHEIM TWP
SCHUYLKILL COUNTY
PA
DRAWN BY: ZRS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

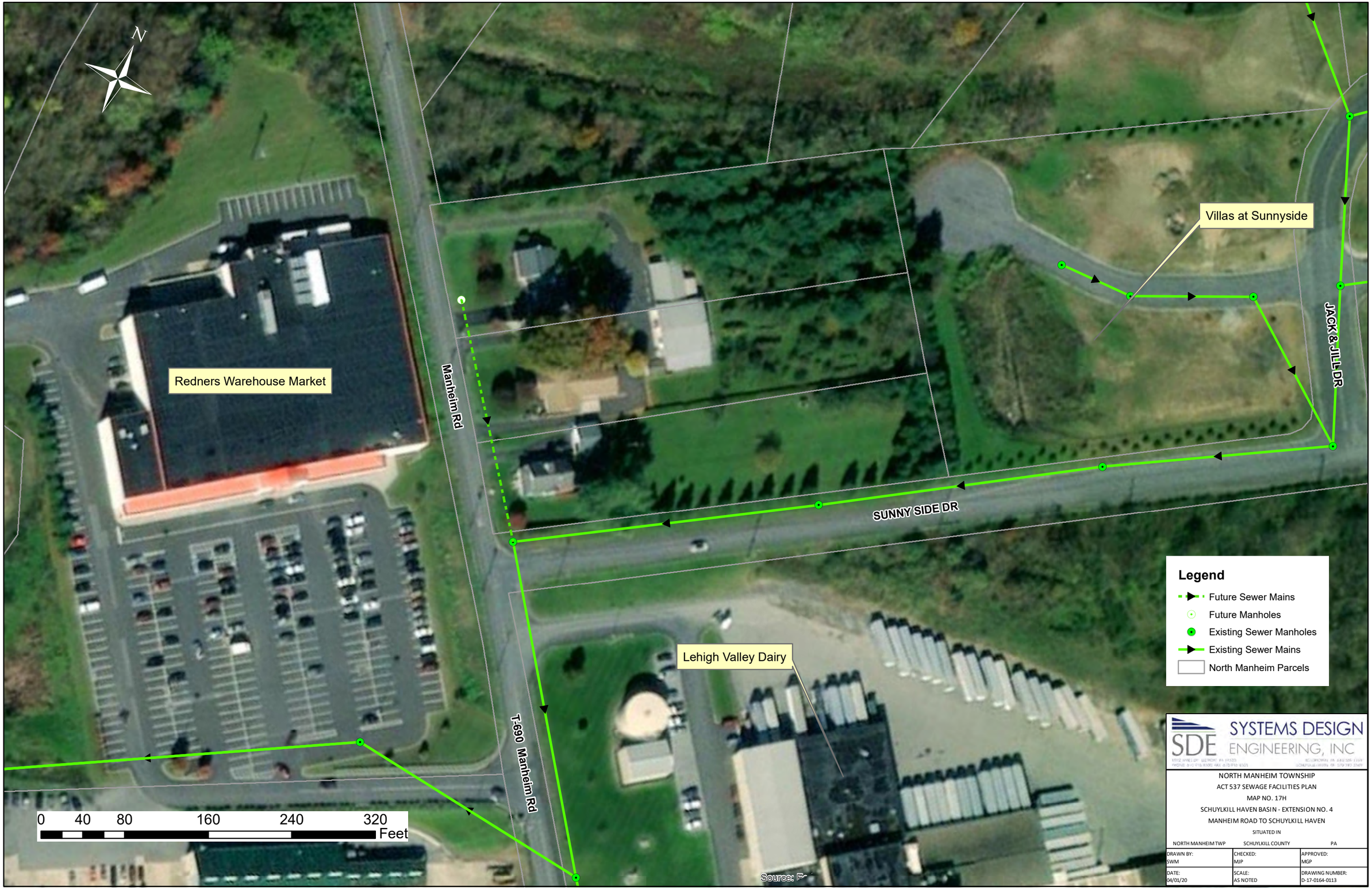
State Hwy 61
N
Weavers Rd
Albert Ave
Jacks Ln
Fair Lawn
Vernon Ave
Albert Blvd
Rr 4
Ronald Ave
Twp Hwy 977
Betty Rd
Margaret Ter
Twp Hwy 972
Cresswell Ave
Twp Hwy 982
4th St
Twp Hwy 692a
Robyn Rd
W 2nd Mountain Rd
State Hwy 2006
SR2006
Twp Hwy 691
Dove St
2nd St
Lake St
Twp Hwy 692b
Metering Station
Existing Schuylkill Haven Collection System
0 245 490 980 1,470 1,960
Feet
Source: F
Legend
Type
Future Force Main
Future Gravity
Future Manholes
Existing Sewer Forcemains
Existing Sewer Manholes
Existing Sewer Mains
North Manheim Parcels
SDE
SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17F
SCHUYLKILL HAVEN BASIN - EXTENSION NO. 2
SCHUYLKILL HAVEN - FAIRLAWN
SITUATED IN
NORTH MANHEIM TWP
SCHUYLKILL COUNTY
PA
DRAWN BY: ZRS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17G
SCHUYLKILL HAVEN BASIN - EXTENSION NO. 3
SPRING STREET TO SCHUYLKILL HAVEN
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA

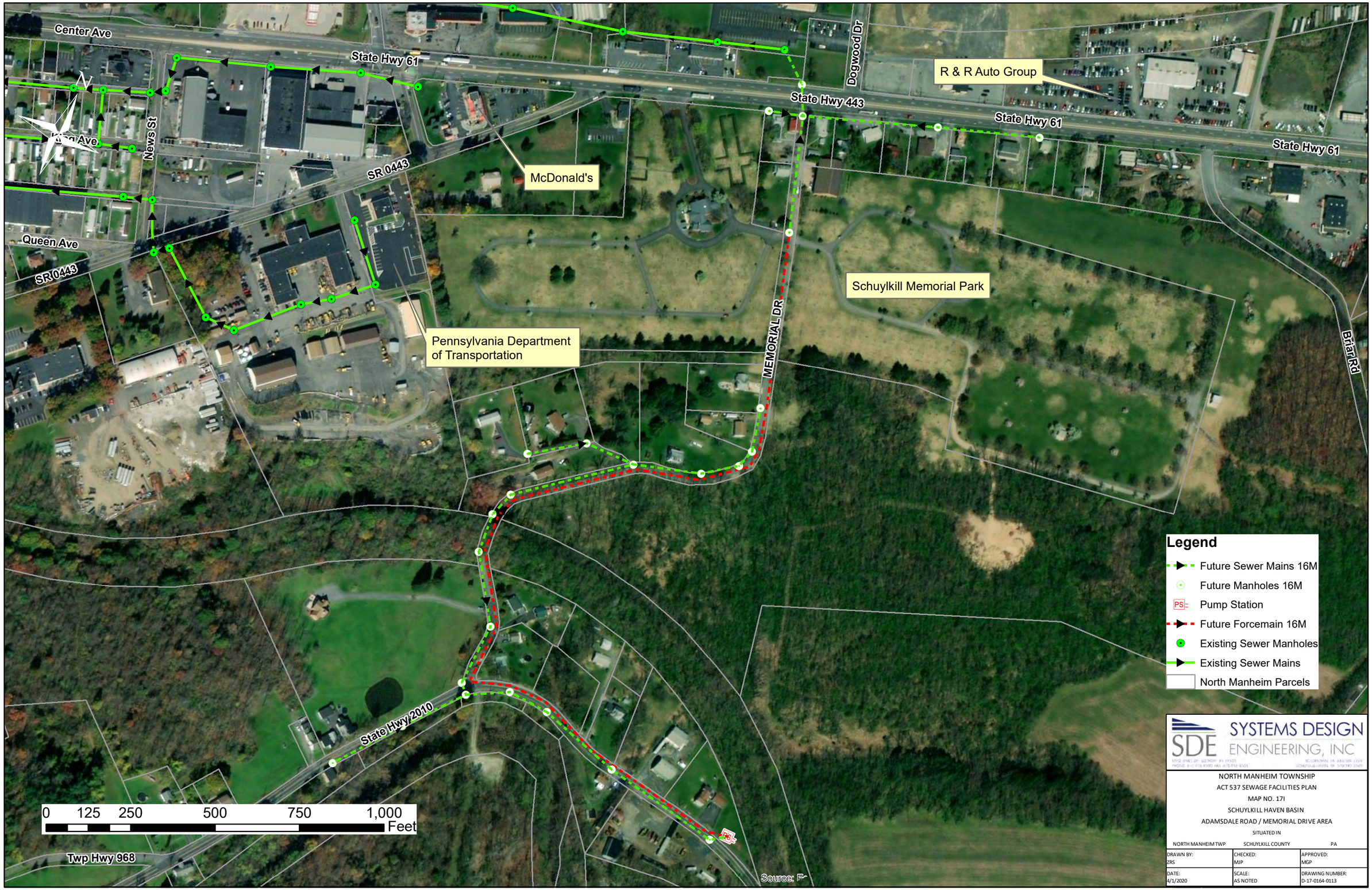
DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17H
SCHUYLKILL HAVEN BASIN - EXTENSION NO. 4
MANHEIM ROAD TO SCHUYLKILL HAVEN
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113



SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17I
SCHUYLKILL HAVEN BASIN
ADAMSDALE ROAD / MEMORIAL DRIVE AREA
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED: MGP
DATE: 4/1/2020	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113

N

Michigan Ave
Marsha Ave
Detroit Ave
Ellen Ave
Elda Ave
Mardelle Ave
Kate Ave
Jane Ave
Renninger Ave
Mary-Ann Ave
Grace Ave
Detroiter Rd
Builtwell Rd
Renningers Rd
Renningers Rd
JACK & JILL
Dogwood Dr
Reynolds Rd
State Hwy 2006
N Greenview Rd
Greenview Rd
Greenview Rd
State Hwy 443
State Hwy 61
State Hwy 61
State Hwy 61
MEMORIAL DR
Briar Rd
1st St T-985
T-984
TOBASH DR
Crestview Dr T-986

Sunoco Gas Station

R & R Auto Group

Reninger's Farm Market

Blue Mountain High School

Potential Greenview Development by Metropolitan Development Group

Schuylkill Country Club

0 250 500 1,000 1,500 2,000 Feet

Source: F

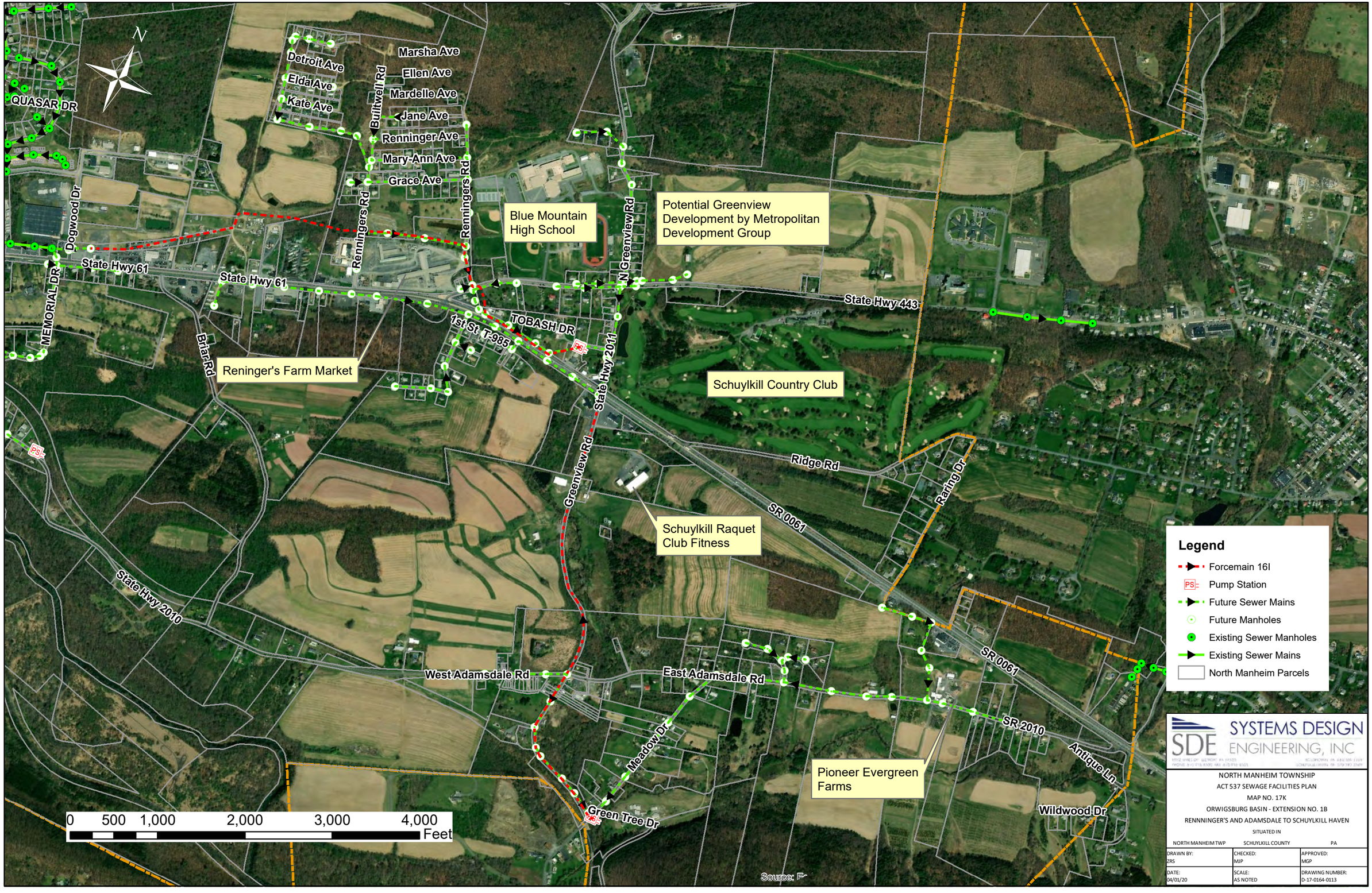
Legend

- Forcemain 16H
- Pump Station
- Future Sewer Mains
- Future Manholes
- Existing Sewer Manholes
- Existing Sewer Mains
- North Manheim Parcels

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17J
ORWIGSBURG BASIN - EXTENSION NO. 1A
RENNNINGER'S TO SCHUYLKILL HAVEN
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113


N
QUASAR DR
Detroit Ave
Elda Ave
Kate Ave
Marsha Ave
Ellen Ave
Mardelle Ave
Jane Ave
Renninger Ave
Mary-Ann Ave
Grace Ave
Builtwell Rd
Renningers Rd
Renningers Rd
Dogwood Dr
MEMORIAL DR
State Hwy 61
State Hwy 61
Briar Rd
Reninger's Farm Market
Blue Mountain High School
Potential Greenview Development by Metropolitan Development Group
N Greenview Rd
State Hwy 443
1st St T-985
TOBASH DR
State Hwy 2011
Schuylkill Country Club
Greenview Rd
Ridge Rd
SR 0061
Raring Dr
Schuylkill Raquet Club Fitness
State Hwy 2010
West Adamsdale Rd
East Adamsdale Rd
SR 0061
SR 2010
Meadow Dr
Green Tree Dr
Pioneer Evergreen Farms
Antique Ln
Wildwood Dr
0 500 1,000 2,000 3,000 4,000
Feet
Source: F
Legend
Forcemain 16I
Pump Station
Future Sewer Mains
Future Manholes
Existing Sewer Manholes
Existing Sewer Mains
North Manheim Parcels
SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17K
ORWIGSBURG BASIN - EXTENSION NO. 1B
RENNNINGER'S AND ADAMSDALE TO SCHUYLKILL HAVEN
SITUATED IN
NORTH MANHEIM TWP
SCHUYLKILL COUNTY
PA
DRAWN BY: ZRS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

N

HEMLOCK DR

SR 2006

State Hwy 2006

Michigan Ave

Detroit Ave

Elda Ave

Kate Ave

Detroiter Rd

Laura Ave

Marsha Ave

Ellen Ave

Mardelle Ave

Burkwell Rd

Jane Ave

Renninger Ave

Mary-Ann Ave

Grace Ave

Renningers Rd

Renningers Rd

Reynolds Rd

Blue Mountain High School

Potential Greenview Development by MDG

Borough of Orwigsburg

Reninger's Farm Market

State Hwy 61

Briar Rd

TOBASH DR

1st St T-985

T-984

Crestview Dr T-986

Greenview Rd

State Hwy 2011

N Greenview Rd

State Hwy 443

Schuylkill Country Club

Ridge Rd

SR 0061

Greenview Rd

Schuylkill Raquet Club Fitness

0 250 500 1,000 1,500 2,000 Feet

Source: F

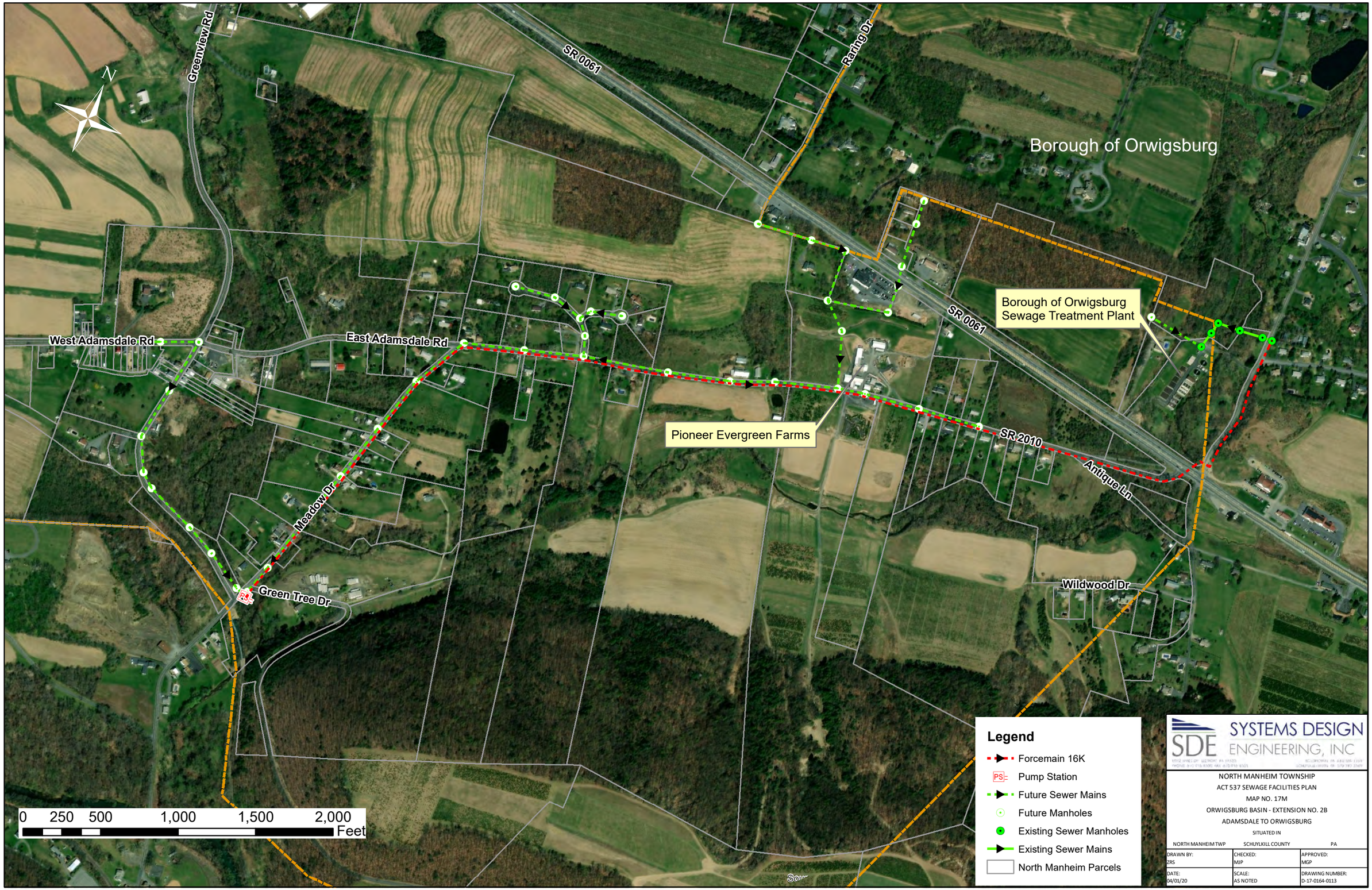
Legend

- Forcemain 16J
- Pump Station
- Future Sewer Mains
- Future Manholes
- Existing Sewer Manholes
- Existing Sewer Mains
- North Manheim Parcels

SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17L
ORWIGSBURG BASIN - EXTENSION NO. 2A
RENNNINGER'S TO ORWIGSBURG
SITUATED IN
NORTH MANHEIM TWP | SCHUYLKILL COUNTY | PA

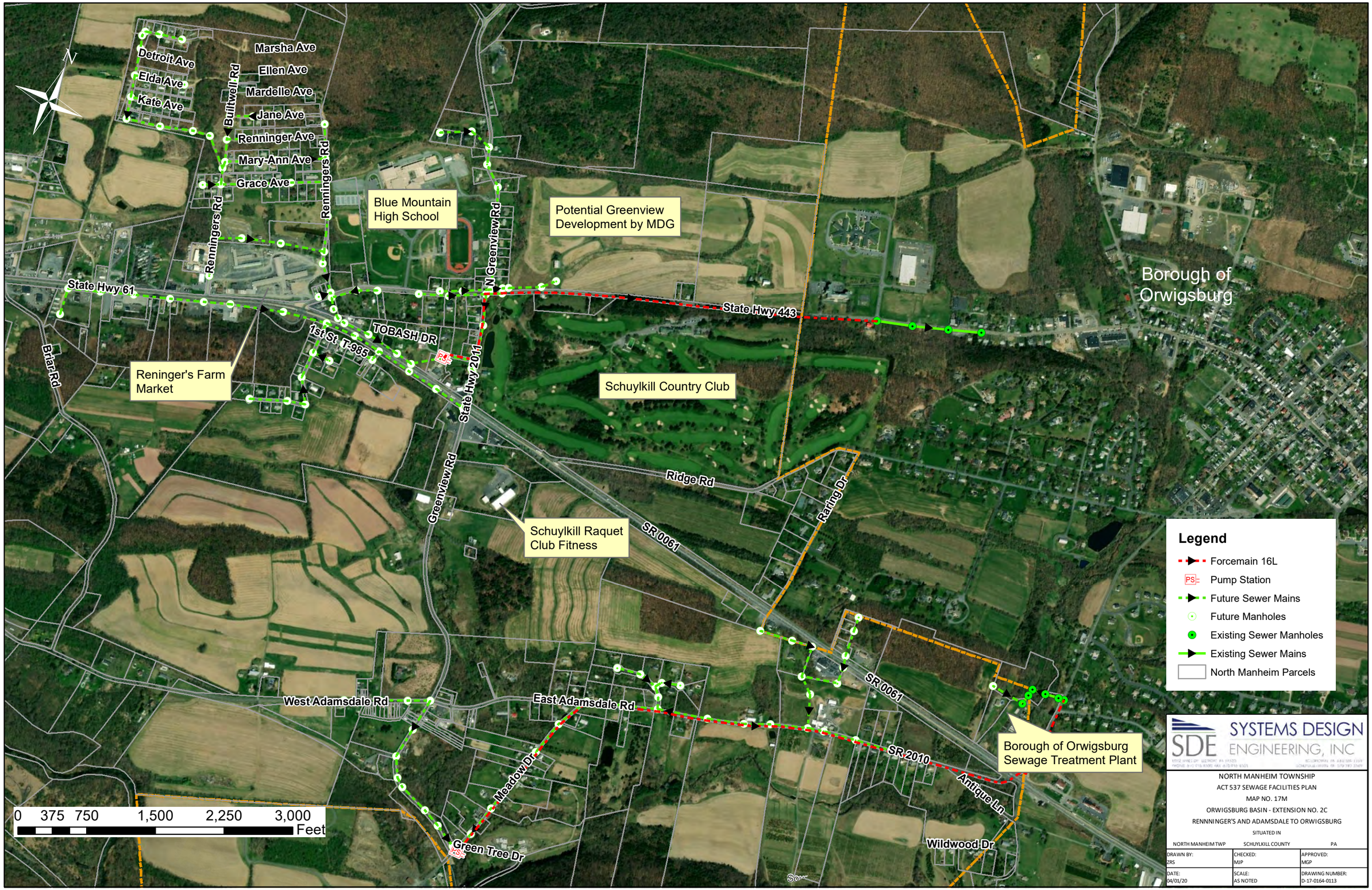
DRAWN BY:	CHECKED:	APPROVED:
ZRS	MJP	MGP
DATE:	SCALE:	DRAWING NUMBER:
04/01/20	AS NOTED	D-17-0164-0113



SDE SYSTEMS DESIGN ENGINEERING, INC

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17M
ORWIGSBURG BASIN - EXTENSION NO. 2B
ADAMSDALE TO ORWIGSBURG
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA

DRAWN BY: ZRS	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: AS NOTED	DRAWING NUMBER: D-17-0164-0113


N
Detroit Ave
Elda Ave
Kate Ave
Marsha Ave
Ellen Ave
Mardelle Ave
Jane Ave
Renninger Ave
Mary-Ann Ave
Grace Ave
Builtwell Rd
Renningers Rd
Renningers Rd
Blue Mountain High School
Potential Greenview Development by MDG
N Greenview Rd
State Hwy 61
State Hwy 443
Borough of Orwigsburg
TOBASH DR
1st St T-985
Briar Rd
Reninger's Farm Market
State Hwy 2011
Schuylkill Country Club
Greenview Rd
Schuylkill Raquet Club Fitness
Ridge Rd
SR 0061
Raring Dr
SR 0061
West Adamsdale Rd
East Adamsdale Rd
SR 2010
Antique Ln
Meadow Dr
Green Tree Dr
Wildwood Dr
0 375 750 1,500 2,250 3,000
Feet
Legend
Forcemain 16L
Pump Station
Future Sewer Mains
Future Manholes
Existing Sewer Manholes
Existing Sewer Mains
North Manheim Parcels
SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17M
ORWIGSBURG BASIN - EXTENSION NO. 2C
RENNNINGER'S AND ADAMSDALE TO ORWIGSBURG
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA
DRAWN BY: ZRS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix B ■ Agreements

Schuylkill Haven Inter-Municipal Sewage Agreement, 08/18/1992

1140-105 OFFICE COPY
Executed copy

Frumkin, Shralow & Cerullo
A PROFESSIONAL CORPORATION · ATTORNEYS AT LAW

Second Street & Laurel Boulevard
P.O. Box 500
Pottsville, PA 17901
717-622-0767
FAX 717-622-0798

Memorandum

To: Harry B. Crosswell, Esquire
Borough of Schuylkill Haven
Attn: Mr. Doug Satterfield, Borough Manager

From: Paul J. Datte, Esquire

Date: August 19, 1992

Re: Inter-Municipal Sewage Agreement among Borough of Schuylkill Haven, North Manheim Township Authority, and North Manheim Township
Our File No. 3347-5

I am enclosing for each of you a fully executed copy of the Inter-Municipal Sewage Agreement which was approved by the North Manheim Township Authority on August 11, 1992 and the Board of Supervisors of North Manheim Township on August 18, 1992.

Thank you for your cooperation in bringing this Agreement to a conclusion.

PJD:ddc
Enclosure
cc: North Manheim Township Authority
C. William Shilling, Esquire (w/enclosure)
Ronald T. Derenzo, Esquire (w/enclosure)
Thomas R. Lisella, Esquire
Systems Design Engineering, Inc.
Attn: Mr. Michael G. Pohronezny, Jr., P.E. (w/enclosure)

RECEIVED
AUG 21 1992
SYSTEMS DESIGN
ENG. INC.

12th Floor
1760 Market Street
Philadelphia PA 19103
215-636-0400
FAX 215-636-0523

OFFICE COPY
Executed copy

INTER-MUNICIPAL SEWAGE AGREEMENT

THIS INTER-MUNICIPAL SEWAGE AGREEMENT (the "Agreement") made this 18TH day of AUGUST, 1992, by and between BOROUGH OF SCHUYLKILL HAVEN, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at Boro Hall, 12 West Main Street, Schuylkill Haven, Schuylkill County, Pennsylvania ("Borough"), NORTH MANHEIM TOWNSHIP AUTHORITY, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Authority"), and TOWNSHIP OF NORTH MANHEIM, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Township").

Background

The Borough currently leases and operates a system for collecting, transporting and treating sewage, which system has the capacity for transporting and treating sewage originating in North Manheim Township, Schuylkill County, Pennsylvania. By ordinance or ordinances of the North Manheim Township Board of Supervisors, the Authority will from time to time be vested with jurisdiction over the collection, transportation and treatment of sewage originating in various specified areas located within the Township. The parties are entering into this Agreement for the purpose of establishing the terms and conditions under which the Borough will transport and treat the sewage of the Township.

NOW, THEREFORE, in consideration of the mutual promises contained herein an with intent to be legally bound, the parties hereby agree as follows:

1. Definitions. The following words and phrases when used in this Agreement shall have the meanings ascribed to them in this section unless the context clearly indicates a different meaning:

1.1 "Authorities Act" shall mean the Municipality Authorities Act of 1945, Act of May 2, 1945, P.L. 382, 53 P.S. §302 et seq., as amended and supplemented.

SEE PARAGRAPH 4.1
#35,000.00 IS A PORTION OF TOTAL $50,000.00

1.2 "Authority" shall mean the North Manheim Township Authority, acting by and through its Board or, in appropriate cases, acting by or through its authorized representative(s).

1.3 "Board of Supervisors" shall mean the group of elected officials acting as the governing body of the Township.

1.4 "Borough" shall mean the Borough acting by and through its Borough Council or, in appropriate cases, acting by and through its authorized representative(s).

1.5 "Borough Charge" shall mean the amount due and payable to Borough by Authority for all services provided under this Agreement determined in accordance with Section 3 hereof.

1.6 "Commercial Establishment" shall mean any room, group of rooms, building or enclosure connected, directly or indirectly, to the Sewer System of the Authority and used or intended for use in the operation of a business enterprise for the sale and distribution of any product, commodity, article or service.

1.7 "Commonwealth" shall mean the Commonwealth of Pennsylvania.

1.8 "Connection Ordinance" shall mean the ordinance enacted by the Township, inter alia, compelling all Owners of Improved Property whose principal building is accessible to the Sewer System of the Authority, to connect to such Sewer System of the Authority and use the same in such manner as the Township may ordain.

1.9 "DER" shall mean the Department of Environmental Resources of the Commonwealth.

1.10 "Domestic Sewage" shall mean all Sewage other than Industrial Wastes.

1.11 "Dwelling Unit" shall mean any room, group of rooms, house trailer, apartment, condominium, cooperative or other enclosure connected, directly or indirectly to the Sewer System of the Authority and occupied or intended for occupancy as living quarters by an individual, a single family or other discrete group of persons, excluding institutional dormitories.

1.12 "Educational Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly, to the Sewer System of the Authority and used or

intended for use, in whole or in part, for educational purposes, including both public and private schools.

1.13 "EDU" shall mean an Equivalent Dwelling Unit.

1.14 "EPA" shall mean the Environmental Protection Agency of the United States of America.

1.15 "Equivalent Dwelling Unit" shall mean not in excess of 12,500 gallons per quarter of Sewage based upon metered sewage, water consumption, or adjusted water consumption or whichever of said methods is applicable for the determination of volume, as provided for in this Agreement with reference to Schedule 1.15, attached hereto and incorporated herein by reference.

1.16 "Improved Property" shall mean any property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Domestic Sewage and/or Industrial Wastes shall be or may be discharged, which is located within the Sewered Area and subject to the Connection Ordinance.

1.17 "Industrial Establishment" shall mean any Improved Property used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property from which wastes, in addition to or other than Domestic Sewage, shall or may be discharged.

1.18 "Industrial Wastes" shall mean any and all Sewage and other liquid wastes discharged from an Industrial Establishment other than Domestic Sewage discharged from such Industrial Establishment.

1.19 "Institutional Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly to the Sewer System of the Authority, including institutional dormitories in Educational Establishments, which do not constitute a Commercial Establishment, a Dwelling Unit or an Industrial Establishment.

1.20 "Long Run Project" shall mean the sewage collection project which the Authority plans to construct for units located along S.R. 443 in the Township with or without the joint cooperation of the Wayne Township Authority, Schuylkill County, Pennsylvania.

1.21 "Multiple Use Improved Property" shall mean any Improved Property upon which there shall exist any combination of a Dwelling Unit, Commercial Establishment, Education Establishment, Industrial Establishment or Institutional Establishment.

1.22 "Owner" shall mean any Person vested with title, legal or equitable, sole or partial, of any Improved Property.

1.23 "Operating Costs of the Sewage Treatment Plant" shall mean the annual expenditures for applicable supplies and chemicals, heat, light, power, insurance, ordinary repairs and normal maintenance, salaries and wages, including normal fringe benefits and taxes, necessary to operate Borough's Sewage Treatment Plant and which are consistent with generally accepted governmental accounting principles and shall consist of the line items set forth on Schedule 1.23, attached hereto and incorporated herein by reference.

1.24 "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

1.25 "Sewage" shall mean the water-carried wastes from single and multi-family residences, business buildings, institutions and industrial establishments.

1.26 "Sewage System of the Borough" shall include all facilities located within the Borough for collecting, transporting and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation in the case of the Borough and the Sewage Treatment Plant.

1.27 "Sewage System of the Authority" shall include all facilities of the Authority now or hereafter located in the Township for the purpose of transporting Sewage to the Sewer System of the Borough.

1.28 "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by the Borough for treating and disposing of sewage, presently existing and all future improvements and additions thereto.

1.29 "Sewered Area" shall mean these areas of the Township served by the Sewer System as determined and designated, from time to time, by the Township and the Authority.

1.30 "Township" shall mean North Manheim Township, Schuylkill County, Pennsylvania, a political subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through its authorized representatives.

1.31 "Treatment Unit Rate" shall mean the charge applicable to Sewage for treatment at the Sewage Treatment Plant as determined in accordance with Paragraph 3.2.2.

1.32 "User Charge" shall mean the annual sewer rental or charge imposed by the Authority hereunder, as amended from time to time, against the Owner of each Improved Property, for the use of the Sewage System of the Authority.

1.33 Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Provision of Sewage Service.

2.1 The Borough agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide the Authority, as a single bulk customer, Sewage treatment and disposal services in the Sewage Treatment Plant as provided for herein. Borough agrees to maintain the Sewage System of the Borough in good repair and order and efficient operating condition necessary to satisfy all laws, regulations and standards prescribed or enforced by DER, EPA, and any other governmental authority having jurisdiction thereof. However, the Borough shall not be responsible for damage to the Township, Authority or its residents, caused by a malfunction of the Sewage Treatment Plant or the Borough's sewage transportation system, which could not reasonably have been avoided. Borough shall agree to provide upon request, an annual report, certified by its engineer, that the Sewage System of the Borough is in good operating condition.

2.2 The Borough, subject to all of the terms and conditions of this Agreement, herewith grants to the Township and the Authority the right to continue the connection of their present and future Sewage flows through the Sewage System of the Authority to the present and any future Sewage System of the Borough for the purpose of discharge and disposal of Sewage either directly or through the sewage transportation system of the Borough. The present Sewage flows to the Sewage System of the Borough, all within the confines of the Township and being more fully set-forth and described on the drawing marked Schedule 2.2, attached hereto

1.21 "Multiple Use Improved Property" shall mean any Improved Property upon which there shall exist any combination of a Dwelling Unit, Commercial Establishment, Education Establishment, Industrial Establishment or Institutional Establishment.

1.22 "Owner" shall mean any Person vested with title, legal or equitable, sole or partial, of any Improved Property.

1.23 "Operating Costs of the Sewage Treatment Plant" shall mean the annual expenditures for applicable supplies and chemicals, heat, light, power, insurance, ordinary repairs and normal maintenance, salaries and wages, including normal fringe benefits and taxes, necessary to operate Borough's Sewage Treatment Plant and which are consistent with generally accepted governmental accounting principles and shall consist of the line items set forth on Schedule 1.23, attached hereto and incorporated herein by reference.

1.24 "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

1.25 "Sewage" shall mean the water-carried wastes from single and multi-family residences, business buildings, institutions and industrial establishments.

1.26 "Sewage System of the Borough" shall include all facilities located within the Borough for collecting, transporting and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation in the case of the Borough and the Sewage Treatment Plant.

1.27 "Sewage System of the Authority" shall include all facilities of the Authority now or hereafter located in the Township for the purpose of transporting Sewage to the Sewer System of the Borough.

1.28 "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by the Borough for treating and disposing of sewage, presently existing and all future improvements and additions thereto.

1.29 "Sewered Area" shall mean these areas of the Township served by the Sewer System as determined and designated, from time to time, by the Township and the Authority.

1.30 "Township" shall mean North Manheim Township, Schuylkill County, Pennsylvania, a political subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through its authorized representatives.

1.31 "Treatment Unit Rate" shall mean the charge applicable to Sewage for treatment at the Sewage Treatment Plant as determined in accordance with Paragraph 3.2.2.

1.32 "User Charge" shall mean the annual sewer rental or charge imposed by the Authority hereunder, as amended from time to time, against the Owner of each Improved Property, for the use of the Sewage System of the Authority.

1.33 Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Provision of Sewage Service.

2.1 The Borough agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide the Authority, as a single bulk customer, Sewage treatment and disposal services in the Sewage Treatment Plant as provided for herein. Borough agrees to maintain the Sewage System of the Borough in good repair and order and efficient operating condition necessary to satisfy all laws, regulations and standards prescribed or enforced by DER, EPA, and any other governmental authority having jurisdiction thereof. However, the Borough shall not be responsible for damage to the Township, Authority or its residents, caused by a malfunction of the Sewage Treatment Plant or the Borough's sewage transportation system, which could not reasonably have been avoided. Borough shall agree to provide upon request, an annual report, certified by its engineer, that the Sewage System of the Borough is in good operating condition.

2.2 The Borough, subject to all of the terms and conditions of this Agreement, herewith grants to the Township and the Authority the right to continue the connection of their present and future Sewage flows through the Sewage System of the Authority to the present and any future Sewage System of the Borough for the purpose of discharge and disposal of Sewage either directly or through the sewage transportation system of the Borough. The present Sewage flows to the Sewage System of the Borough, all within the confines of the Township and being more fully set-forth and described on the drawing marked Schedule 2.2, attached hereto

and incorporated herein by reference, emanating from those portions of the Township that the Borough has agreed to accept, and quantities of said present flows are predicated upon conditions existing as of the date of the execution of this Agreement. Any further expansion or extension of the Sewage System of the Authority, consisting of one (1) or more additional connections, shall be subject to the written approval of the Borough, which approval shall not be unreasonably withheld. In the alternative, the Township/Authority shall negotiate a specified reservation of Sewage treatment capacity with the Borough. The Borough hereby consents to the connections set forth on Schedule 4.1 hereto.

2.3 The Borough agrees to take all necessary steps to carry the Sewage passing through the Township's and Authority's connection or connections to Borough's Sewage Treatment Plant, whether said connections are made directly to the Sewage Treatment Plant or to the Borough's sewage transportation system for transportation to the Sewage Treatment Plant, and to treat and dispose of such sewage in a manner required by the EPA, DER, or any successor regulatory bodies.

2.4 Township, Authority and Borough agree that they will take all reasonable efforts to insure that the Sewage passing through their respective Sewage Systems shall not contain storm water, roof or surface drainage. Further, Township, Authority and Borough shall make all reasonable efforts to prohibit the entrance into their respective Sewage Systems of all prohibited industrial waste, chemicals, and other matter as defined in this Agreement. The Borough and the Authority shall be able to take samples and make analysis of such samples at anytime.

2.5 The Township, Authority, and Borough shall be subject to the restrictions and conditions of any separate industrial waste pre-treatment programs and ordinances that the Borough, the Township and the Authority have respectively adopted or may respectively adopt concerning themselves and all users of their respective Sewage Systems. The Township, Authority, and Borough agree to coordinate any such industrial waste pre-treatment programs and ordinances.

3. Borough Charge.

3.1 The Authority shall pay Borough for the rights, privileges, and benefits hereunder, the Borough Charge calculated in accordance with this Section and paid on a monthly basis. The Borough Charge for Industrial Wastes shall be increased by any surcharge applicable to such Industrial Wastes.

3.2 At least thirty (30) days prior to the Authority commencing service hereunder and on or before each anniversary date hereof thereafter, the Authority shall certify to the Borough the location and apparent use of each Improved Property in the Sewered Area served by the Sewage System of the Authority on such anniversary date. On each annual certificate, the Authority shall also include the number of EDU's by which each Improved Property shall be classified in accordance with Section A of Schedule 1.15. The Borough, upon written notice to the Authority, may, at any time during any year, elect, in the case of Improved Property from which water consumed or sewage discharged is metered by device reasonably acceptable to the Borough and the Authority, to determine the number of EDU's by which any Improved Property shall be classified in accordance with Section B of Schedule 1.15.

3.3 For Improved Properties serviced by the Borough water system and metered for such, the Borough Charge shall be determined by multiplying the water usage for such Improved Properties as metered by the Treatment Unit Rate per 1,000 gallons. In all other cases, the Borough Charge shall be determined by multiplying the total of all EDU's for all Improved Properties in the Sewered Area served by the Sewage System of the Authority during all or any part of the month for which such calculation shall be performed, by the Treatment Unit Rate per 1,000 gallons of Sewage (as further defined in Section 3.4 and 3.5 hereof) and by 12.5. To illustrate the application of the foregoing, the parties agree that if the Treatment Unit Rate is $2.17 per 1,000 gallons of Sewage, and if there are 50 Improved Properties served by the Sewer System of the Authority in the Sewered Area, with a combined total of 75 EDU's, and if one EDU is deemed to be 12,500 gallons per quarter, the Borough Charge for the month shall be 75 x $2.17 x 12.5 ÷ 3 = $678.13.

3.4 From the date hereof through and including June 30, 1993, the Treatment Unit Rate shall be $2.17 per 1,000 gallons and thereafter the Treatment Unit Rate shall be the total annual Operating Costs of the Sewage Treatment Plant as budgeted for the ensuing fiscal year of the Borough, determined at least sixty (60) days prior to the close of the current fiscal year, less any deductions therefrom as provided below, divided by the total number of Equivalent Dwelling Units serviced by the Borough's Sewage Treatment Plant.
Notwithstanding anything contained herein to the contrary, the Treatment Unit Rate shall be reduced by the amount of any state or federal subsidies the Borough receives for the operation of the Sewage Treatment Plant when calculating said rates. Likewise, any

monies received by the Borough, as applicable, during the previous fiscal year, which represent any surcharges or pretreatment charges shall be deducted from the total Operating Costs of the Sewage Treatment Plant when calculating said rates.

3.5 The Borough may only increase the Treatment Unit Rate on July 1 of each year for the next one (1) year period in subsequent years if the Borough increases user rates and fees for all customers or users of the Sewage System of the Borough due to an anticipated and budgeted increase in Operating Costs of the Sewage Treatment Plant for the next fiscal year of the Borough and only the extent of such anticipate and budgeted increase in Operating Costs of the Sewage Treatment Plant. Within sixty (60) days of the close of the fiscal year during which an increase of the Treatment Unit Rate was assessed by the Borough to the Authority, the actual Operating Costs of the Sewage Treatment Plant for such fiscal year shall be calculated in accordance with Section 3.6. The actual Operating Costs of the Sewage Treatment Plant shall be compared to the budgeted Operating Costs of the Sewage Treatment Plant upon which the increase in the Treatment Unit Rate was based and the Borough Charge for the current fiscal year will be adjusted reasonably to compensate for the difference in the actual versus the budgeted Operating Costs of the Sewage Treatment Plant.

3.6 The Borough shall keep appropriate audited records and accounts with respect to Operating Costs of the Sewage Treatment Plant so that determinations which shall be necessary can be made promptly, at the required times, with fairness and accuracy. Such records and accounts shall be open to inspection by th Township and the Authority, upon reasonable notice, at reasonable times. Certified audits of appropriate records and accounts of the Borough with respect to the Sewage System of the Borough shall be made available to the Township and the Authority annually. Any additional cost in preparing this report shall become part of the total Operating Costs of the Sewage Treatment Plant.

3.7 The Borough Charge shall be calculated by the Borough and invoiced to the Authority each month, and shall be accompanied by a report of the manner of calculation, including water meter readings for each Improved Property for which water meter readings were used to calculate the Borough Charge. The Authority covenants to bill its customers on a quarterly basis. The Borough Charge, therefore, shall be paid by the Authority to the Borough within thirty (30) days of the Authority issuing its bills to its customers for the period covered by the Borough's invoices for the Borough Charge.

3.8 The Borough agrees that any other charges shall be in conformance with the Authorities Act.

3.9 The cost of transportation and treatment of Sewage collected outside of the Borough shall not be subsidized by the Borough or its residents, and the cost of the transportation and treatment of Sewage collected from connections within the Borough shall not be subsidized by the Township, or its residents.

3.10 Whenever new rules, regulations or legislative acts promulgated or enacted by state or federal regulatory bodies, or the interpretation of the same by such state or federal regulatory bodies having jurisdiction, require the expenditure of additional funds concerning the operation of the Sewage Treatment Plant, which were not foreseen or contemplated upon the execution of this Agreement, then in such event, this Agreement may be renegotiated upon written notice from the Borough to the Authority, solely as to the payment of any such additional expenses of operation of the Sewage Treatment Plant incurred as a direct result of such new rules, regulations, acts or interpretations.

4. Borough Tapping Fees. The Authority shall pay Borough a tapping fee to be determined and paid as follows:

4.1 For all existing and potential identifiable connections within the portions of the Sewered Area designated on Schedule 4.1, attached hereto and incorporated herein by reference, the tapping fee charged by the Borough and payable by the Authority is and shall be $500.00 per connection until December 31, 1994, after which the tapping fee shall be determined in accordance with the Authorities Act.

4.2 For all connections other than those identified in Section 4.1, the tapping fee charged by the Borough and payable by the Authority shall be determined in accordance with the Authorities Act and shall not exceed $1,200.00 per connection until December 31, 1994, after which the tapping fee shall be determined in accordance with the Authorities Act with no maximum limitation.

4.3 The tapping fee applies to connections made after the date of this Agreement and shall be payable by the Authority to the Borough within thirty (30) days after connection of the unit to the Authority Sewage System.

4.4 All tapping fees paid by the Authority to the Borough pursuant hereto shall be held by the Borough for the benefit of the Borough and the Authority to defray any future capital costs

associated with any expansion of the DER permitted capacity of the Sewage Treatment Plant requested or necessitated by the Authority. The Borough shall not be required to segregate or separately account for the tapping fees paid by the Authority to the Borough; provided, however, that the Authority shall receive an appropriate credit for all such tapping fee payments against any sums the Authority might otherwise owe to the Borough in conjunction with any such Sewage Treatment Plant expansion.

5. Long Run Project.

5.1 The Authority currently anticipates construction of the Long Run Project. The provisions of this Section 5 shall apply to the Long Run Project regardless of the date of commencement or completion of construction of the Long Run Project.

5.2 The Authority shall install and maintain a sewage flow meter at the point of connection of the Long Run Project to the Borough's Sewage System strictly for the purpose of monitoring flows into the Sewage System of the Borough. The meter to be installed pursuant hereto shall not be used in conjunction with the establishment and/or payment of Borough Charges and fees under Sections 3 and 4 hereof. The meter shall be accessible at any time by either the Borough or the Authority.

5.3 The point of connection of the Long Run Project to the Sewage System of the Borough shall be at Cleveland Street within the Borough.

5.4 In the event that the actual total quarterly flow of Sewage of the Township discharged to the Sewage System of the Borough from the Long Run Project exceeds ten (10%) percent of the predicted Sewage, the Borough shall provide written notice to the Authority which shall refer to this provision and advise the Authority of the extent of such excess Township Sewage flow. The Authority shall have thirty (30) days from its receipt of such written notice to reduce the excess Township Sewage flow; provided that if the Authority shall in the reasonable discretion of the Borough then be diligently pursuing a remedy for such condition within such thirty (30) day period, the Authority shall have such additional time as the Borough in its discretion reasonably exercised may grant to reduce such excess Township sewage flow. Upon the expiration of such cure period or periods, the Authority will pay the Borough Charge for any remaining excess Township Sewage flow from the Long Run Project.

5.5 Except as otherwise provided in this Section 5, all terms and conditions of this Agreement shall be equally applicable to and binding upon the Long Run Project.

6. Miscellaneous.

6.1 The Borough will insure, or cause to be insured, the Sewage Treatment Plant with a responsible company or companies authorized and qualified to do business under laws of the Commonwealth of Pennsylvania, against loss or damage by fire and such other risks (including public liability) and casualties and in such amounts as are usually carried on like properties in said Commonwealth and as shall be reviewed and approved, at least annually, by the Borough's consulting engineers or other insurance advisor. Such insurance policies shall be nonassessable. Immediately upon the occurrence of any loss or damage to any part of the Sewage Treatment Plant which is covered by insurance, the Borough will commence and promptly complete, or cause to be so commenced and promptly completed, the repairing, replacement or reconstruction of the damaged or destroyed property according to plans and specification prepared by the Borough's consulting engineers and shall collect and apply, or cause to be applied, the proceeds of such insurance to the cost of such repair, replacement or reconstruction.

6.2 Each party shall provide the other, from time to time, all information relevant to the proper administration of their responsibilities under this Agreement, or in respect to the interpretation hereof, as, and in such form and detail as, may be reasonably requested and each shall, at all reasonable times and from time to time, permit their representatives to examine and inspect their respective records and physical facilities relevant to the subject matter of this Agreement.

6.3 This Agreement is non-exclusive in nature and the Authority may enter into agreements with other Persons to collect, transport and/or treat all or any portion of the Sewage originating in the Township or perform such services for its own account. This is an Authority requirements contract only and nothing contained in this Agreement is explicitly or impliedly intended to create any obligation on the Authority to provide all or any portion of the Sewage originating in the Township to the Borough for transportation or treatment.

6.4 Notwithstanding any other provision of this Agreement, no party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of

God or riot, sabotage, public calamity, flood, strike, breakdown of the Sewage System of either party hereto, or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

6.5 Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Service Agreement due to the negligence of such party or its agents or employees.

6.6 Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected; and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein.

6.7 The headings in this Agreement are solely for convenience and shall have no effect in the legal interpretation of any provision hereof.

6.8 This Agreement shall become effective as of the date hereof and shall continue in full force and effect for a term of forty (40) years.

6.9 The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

6.10 In the event of any suit, action or proceeding at law or in equity, by either of the parties hereto against the other by reason of any matter or thing arising out of this Agreement, the prevailing party shall recover not only its legal costs but a reasonable attorney's fee (to be fixed by the Court) for the maintenance or defense of said action or suit, as the case may be. In the event that said action or suit is based on the amount of the Borough Charge, the Authority shall continue to pay the Borough Charge during the pendency of said action or suit at the rate in effect prior to said action or suit subject utlimately to adjustment based on the disposition of said action or suit.

6.11 This Agreement may be executed in any number of counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

6.12 The Borough shall not voluntarily assign this Agreement without the consent of the Authority, except that the Borough may assign its rights hereunder to a municipality authority of which the Borough is an incorporator. Subject to the foregoing this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

6.13 This Agreement supersedes and repeals any prior agreement, contracts, and understanding, written or oral, by and among the parties hereto with respect to the subject matter contained herein. This Agreement contains the entire agreement among the parties hereto, and no oral statements or representations or prior written matter not contained in this instrument shall have any force and effect.

6.14 This Agreement may not be modified or amended except in a writing signed by the parties hereto.

6.15 This Agreement shall be construed according to, be subject to and be governed by the laws of the Commonwealth.

6.16 This Agreement may be recorded by either party hereto.

6.17 In the event that the Borough enters into any agreement of a similar nature to this Agreement concerning sewage treatment at the Sewage Treatment Plant with any other municipality, municipal authority or similar entity, upon more favorable terms as concerns such municipality, municipal authority or similar entity than those provided herein, then the parties hereto agree that such terms shall be incorporated herein by amendment, upon request by the Authority. Upon request, the Borough shall furnish to the Authority a copy of all sewage treatment agreements outstanding between the Borough and any other municipality whose sewage is treated at the Sewage Treatment Plant.

6.18 In consideration of the within terms and conditions, the parties hereto, agree that if either party fails to observe and perform any of the covenants, conditions or agreements enumerated herein, the non-defaulting party may, upon sixty (60) days prior written notice, declare this Agreement to be broken and may withdraw therefrom retaining, however, all legal rights to institute action, either in law or in equity, for damages caused thereby; provided that if the defaulting party shall in the reasonable discretion of the non-defaulting party then be diligently pursuing a remedy for such condition within such sixty (60) day period, as is not otherwise in default, the defaulting

party shall have such additional time as the non-defaulting party in its discretion reasonably exercised may grant to cure such condition and this Agreement shall then remain in full force and effect.

6.19 Upon the occurrence of a default or breach of this Agreement, which is not corrected within the time provided in Section 6.18 hereof, the non-defaulting party may pursue any remedy at law or in equity for such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers and their respective seals to be hereunto affixed.

ATTEST:

(Corporate Seal)

BOROUGH OF SCHUYLKILL HAVEN

By

ATTEST:

(Corporate Seal) SECRETARY

NORTH MANHEIM TOWNSHIP AUTHORITY

By

CHAIRMAN

ATTEST:

(Corporate Seal)

TOWNSHIP OF NORTH MANHEIM

By

CONSENT OF SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

The Schuylkill Haven Municipal Authority, as owner of the Sewage System of the Borough, hereby consents to this Inter-Municipal Sewage Agreement.

SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

ATTEST:

By

(Corporate Seal)

NMT.PJD\SCHHAVE.PJD\INTER-MU.AGR\3347-5

METHODS OF DETERMINING EQUIVALENT DWELLING UNITS

SCHEDULE 1.15

A. Based on Description of Property

Description of Improved Property	Unit of Measurement	Number of EDU's Per Unit of Measurement
Residential Dwelling Unit (year-round or seasonal)	Each Dwelling Unit	1
Retail store, professional offices or other commercial enterprise	1 to 10 employees Each Additional 10 employees or fraction thereof	1 1
Hotel, motel or boarding house (not including restaurant facilities)	1 to 4 rental rooms Each additional 4 rooms or fraction thereof	1 1
Restaurant, club, tavern or other retail food or drink establishment	1 to 10 customer seats Each additional 10 seats or fraction thereof	1 1
Automobile service station or commercial vehicle repair shop	1 or 2 bays Each additional 2 bays or fraction thereof	1 1
Beauty parlor or barber shop (attached to or part of a Dwelling Unit)	First chair Each additional chair	2 1
Beauty parlor or barber shop (not attached to or part of a Dwelling Unit)	First chair Each additional chair	1 1
School	Per each 20 pupils, faculty administrators and staff	1
Church	Each	1
Fire Company	Each	1
Community Hall	Each	1
Funeral Home	Each	1
Industrial/Manufacturing establishment	1 to 10 employees Each additional 10 employees or fraction thereof	1 1

Equivalent Dwelling Units applicable to businesses, retail stores and professional offices may be determined on the basis of the average number of full and part time employees (including individual owners and employers) during the calendar quarter preceding the date the owner of such improved property is required to connect to the Sewer System in accordance with the Connection Ordinance of the Township.

B. Metered Rate Basis

Equivalent Dwelling Units for any Improved Property may be determined on a metered rate basis calculated according to:

(1) Metered volume of potable water usage by the Improved Property, adjusted, if appropriate, or

(2) Actual metered volume of wastewater discharged by the Improved Property into the Sewer System.

In either of the foregoing cases, such Equivalent Dwelling Units shall be computed in accordance with the following metered rate per quarter annum:

METERED RATE SCHEDULE

0 to 12,500 gallons (1,671 cu. ft.) per quarter 1 EDU; and each additional 12,500 gallons (1,671 cu. ft.) or fraction thereof 1 EDU.

C. Estimated Rate Basis

Equivalent Dwelling Units may be based upon the Authority's estimate of potable water consumed by any Improved Property per quarter-annum.

OPERATING COSTS OF SEWAGE TREATMENT PLANT
SCHEDULE 1.23

(1) Administrative Costs, including Laboratory Tests and proportion of Engineering Costs and Manager's Salary

(2) Salaries, Wages and Social Security Taxes, Workmen's Compensation and other health and welfare benefits

(3) Materials, Chemicals and Supplies

(4) Ordinary Repairs to Sewage Treatment Plant

(5) Fuel, Power, Water and Telephone

(6) Insurance

(7) Transportation and Trucking

(8) Appropriate Debt Service, if any

NOTE: In the event that any of the foregoing costs are applicable to portions of the Borough Sewage System other than the Sewage Treatment Plant, such costs shall consist only of those costs applicable and apportioned to the Sewage Treatment Plant.

NOTE: Capital improvements and/or extraordinary repairs shall be amortized long term, and shall not be included as a single annual amount.

SCHEDULE 2.2
EXISTING CUSTOMERS

David B. Miller
1 Hillcrest Avenue
Schuylkill Haven, PA

Michael J. Boris, Jr.
3 Hillcrest Avenue
Schuylkill Haven, PA

Rhonda Whalen
5 Hillcrest Avenue
Schuylkill Haven, PA

Donald F. Munch
7 Hillcrest Avenue
Schuylkill Haven, PA

William J. Lurwick
9 Hillcrest Avenue
Schuylkill Haven, PA

Dr. Herbert C. Rubright
11 Hillcrest Avenue
Schuylkill Haven, PA

American Argo Corp
Willow Lake
Schuylkill Haven, PA

CO-US Army Garrison
Reserve Center - Rt. 61
Schuylkill Haven, PA

LTL. Wholesale - Rt. 61
Schuylkill Haven, PA

Thermo Dynamics Boiler
R.D. #1, Rt. 61
Schuylkill Haven, PA

Michael Hrenyo
Earle Street, R.D. #1
Schuylkill Haven, PA

Penn State University
Residence Hall - R.D. #1
Schuylkill Haven, PA

Harvey B. Moyer, Inc.
R.D. #1
Schuylkill Haven, PA

Van Heusen Company
R.D. #1, Rt. 61
Schuylkill Haven, PA

Fegley Oil Co., Inc.
R.D. #1, Rt. 61
Tamaqua, PA

Country Squire & Co.
R.D. #1
Schuylkill Haven, PA

Lehigh Valley Dairy, Inc.
Schuylkill Haven, PA

Pottsville Bleach & Dye
R.D. #1, Rt. 61
Schuylkill Haven, PA

Fine & Dandy Donuts
R.D. #1, Rt. 61
Schuylkill Haven, PA

Penn State University
Student Housing Apts.
Schuylkill Haven, PA

Penn State University
Multi-Purpose Building
Schuylkill Haven, PA

Penn State University
Library
Schuylkill Haven, PA

Penn State University
Administrative Bldg.
Schuylkill Haven, PA

Penn State Univeristy
Student Apts. on Campus
Schuylkill Haven, PA

Penn State University
Student Activity Center
Schuylkill Haven, PA

Rest Haven
R.D. #1
Schuylkill Haven, PA

Rest Haven
R.D. #1
Schuylkill Haven, PA

Commonwealth of PA
Drive Exam - R.D. #1
Schuylkill Haven, PA

M&Q Packaging Corp.
Earle Street
Schuylkill Haven, PA

Mildred Guldin
R.D. #3, Box 27
Schuylkill Haven, PA

St. Ambrose Catholic Church
Randell Street
Schuylkill Haven, PA

St. Ambrose Catholic School
302 Randell Street
Schuylkill Haven, PA

Albert J. Rhine
600 W. Columbia Street
Schuylkill Haven, PA

PLAN

Systems Design Engineering, Inc.

CONSULTING ENGINEERS - PLANNERS - SURVEYORS

Wyomissing, PA. 19610

BOROUGH OF SCHUYLKILL HAVEN
AND
NORTH MANHEIM TOWNSHIP AUTHORITY
INTER MUNICIPAL SEWAGE AGREEMENT

DATE | SCALE | DRAWN BY | FIGURE SCHEDULE

Schuylkill Haven Amended and Restated Inter-Municipal Sewage Agreement, 07/13/1999

BOROUGH OF SCHUYLKILL HAVEN

NORTH MANHEIM TOWNSHIP AUTHORITY

TOWNSHIP OF NORTH MANHEIM

AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT

July 13, 1999

Cerullo, Datte & Wallbillich, P.C.
ATTORNEYS AT LAW
Garfield Square
450 West Market Street
P.O. Box 450
Pottsville, PA 17901
717-622-0767
FAX 717-622-0798

TABLE OF CONTENTS

Page

Background 1

1. Definitions 1
   - 1.1 Authorities Act 1
   - 1.2 Authority 1
   - 1.3 Board of Supervisors 2
   - 1.4 Borough 2
   - 1.5 Borough Charge 2
   - 1.6 Commercial Establishment 2
   - 1.7 Commonwealth 2
   - 1.8 Connection Ordinance 2
   - 1.9 DEP 2
   - 1.10 Domestic Sewage 2
   - 1.11 Dwelling Unit 2
   - 1.12 Educational Establishment 2
   - 1.13 EDU 2
   - 1.14 EPA 2
   - 1.15 Equivalent Dwelling Unit 2
   - 1.16 Fiscal Year 3
   - 1.17 Improved Property 3
   - 1.18 Indemnified Party 3
   - 1.19 Industrial Establishment 3
   - 1.20 Industrial Sewer User Ordinance 3
   - 1.21 Industrial Sewer Use Resolution 3
   - 1.22 Industrial Wastes 3
   - 1.23 Institutional Establishment 3
   - 1.24 Long Run Project 3
   - 1.25 Owner 3
   - 1.26 Operating Costs 3
   - 1.27 Person 3
   - 1.28 Sewage 4
   - 1.29 Sewage System of the Borough 4
   - 1.30 Sewage System of the Authority 4
   - 1.31 Sewage Treatment Plant 4
   - 1.32 Sewered Area 4
   - 1.33 Township 4
   - 1.34 Treatment Unit Rate 4
   - 1.35 User Charge 4
   - 1.36 Incorporation of Definitions in the Authorities Act 4

2. Provision of Sewage Service 4
   - 2.1 Agreement to Provide Service 4
   - 2.2 Grant of Right to Connect 5
   - 2.3 Agreement to Transport 5
   - 2.4 Prohibition of Storm Water and Certain Substances 5

3. Borough Charge 5

3.1 Commitment to Pay Borough Charge; Separate Billing for Industrial Surcharge 5
3.2 Annual Certification of EDU's 6
3.3 Method of Charges for Metered Water Customers and Non-Water Customers 6
3.4 Treatment Unit Rate from October 1, 1997 through December 31, 1999. 6
3.5 Incorporation Treatment Unit Rate after December 31, 1999 6
3.6 Comparison of Actual to Budgeted Operating Costs 7
3.7 Records to be Maintained 7
3.8 Billings from the Borough to the Authority; Late Charges 7
3.9 Charges to Conform to Authority Act 7
3.10 Prohibition Against Subsidy 8
3.11 Renegotiation Based on Regulatory Charges 8

4. Borough Tapping Fees 8

4.1 Tapping Fee Due from Authority Upon Connection 8
4.2 Administration of Tapping Fee 8

5. Long Run Project 8

5.1 Flow Meter 8
5.2 Point of Connection 8
5.3 Excess Flows 8
5.4 Application of Agreement to Long Run Project 9

6. Treatment of Industrial Waste 9

6.1 Amendment to Borough Industrial Use Ordinance 9
6.2 Periodic Review of Industrial Use Ordinances 9
6.3 Cooperative Enforcement 9
6.4 Delegation of Enforcement to Borough 10
6.5 Costs of Enforcement and Reviews; Mediation 10
6.6 Indemnity 11
6.7 Disclaimer of Responsibility for Debt 11
6.8 Notification of Claims 12
6.9 Extra-Territorial Industrial Users 12
6.10 Arbitration of Section 6 Issues 12
6.11 Compliance with Federal Clean Water Act 12
6.12 Survival of Covenants 12

7. Miscellaneous 13

7.1 Insurance 13
7.2 Access to Information 13
7.3 Nonexclusivity 13
7.4 Force Majeure 13
7.5 Indemnification for Negligence 13

7.6	Severability	13
7.7	Headings	14
7.8	Term	14
7.9	Waiver of Strict Performance	14
7.10	Continued Payment of Borough Charge	14
7.11	Counterpart Execution	14
7.12	Limitation on Assignment	14
7.13	Prior Agreement Supersedes	14
7.14	Amendments	14
7.15	Choice of Law	14
7.16	Recordings	14
7.17	Most Favored Municipality Provision	15
7.18	Termination on Default	15
7.19	Remedies	15

TABLE OF SCHEDULES

TAB	"A"	Schedule 1.15	- Alternate Methods for Determining EDUs
TAB	"B"	Schedule 1.26	- Operating Cost Budget
TAB	"C"	Schedule 2.2	- Sewage Flows and Customer List; Map of Sewered Area of Township
TAB	"D"	Schedule 3.4	- Treatment Unit Rate Illustration
TAB	"E"	Schedule 6.5	- Form of Reimbursement Requisition

AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT

THIS AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT (the "Agreement") made this 13th day of July, 1999, by and between **BOROUGH OF SCHUYLKILL HAVEN**, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at Borough Hall, 12 West Main Street, Schuylkill Haven, Schuylkill County, Pennsylvania ("Borough"), **NORTH MANHEIM TOWNSHIP AUTHORITY**, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at Rockwood Center, Route 61, R. D. #3, Pottsville, Schuylkill County, Pennsylvania ("Authority"), and **TOWNSHIP OF NORTH MANHEIM**, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Township").

Background

The Borough currently leases and operates a system for collecting, transporting and treating sewage, which system has the capacity for transporting and treating sewage originating in North Manheim Township, Schuylkill County, Pennsylvania. By ordinance or ordinances of the North Manheim Township Board of Supervisors, the Authority will from time to time be vested with jurisdiction over the collection, transportation and treatment of sewage originating in various specified areas located within the Township.

On August 18, 1992, the parties entered into an Inter-Municipal Sewage Agreement (the "1992 Agreement") for the purpose of establishing the terms and conditions under which the Borough transports and treats the sewage of the Township. On October 11, 1995, the parties entered into an Amendment No. 1 to Inter-Municipal Sewage Agreement ("Amendment No. 1") which amended the 1992 Agreement for the purpose of implementing and enforcing a pretreatment program to control Industrial Waste.

The parties are entering into this Amended and Restated Inter-Municipal Agreement for the purpose of incorporating the amendments set forth in Amendment No. 1, as well as further amendments to the 1992 Agreement to which the parties have agreed.

NOW, THEREFORE, in consideration of the mutual promises contained herein an with intent to be legally bound, the parties hereby agree that the Agreement is hereby amended and restated from and after October 1, 1997 to read in its entirety as follows:

1. Definitions. The following words and phrases when used in this Agreement shall have the meanings ascribed to them in this section unless the context clearly indicates a different meaning:

1.1 "Authorities Act" shall mean the Municipality Authorities Act of 1945, Act of May 2, 1945, P.L. 382, 53 P.S. §302 et seq., as amended and supplemented.

1.2 "Authority" shall mean the North Manheim Township Authority, acting by and through its Board or, in appropriate cases, acting by or through its authorized representative(s).

1.3 "Board of Supervisors" shall mean the group of elected officials acting as the governing body of the Township.

1.4 "Borough" shall mean the Borough acting by and through its Borough Council or, in appropriate cases, acting by and through its authorized representative(s).

1.5 "Borough Charge" shall mean the amount due and payable to Borough by Authority for all services provided under this Agreement determined in accordance with Section 3 hereof.

1.6 "Commercial Establishment" shall mean any room, group of rooms, building or enclosure connected, directly or indirectly, to the Sewer System of the Authority and used or intended for use in the operation of a business enterprise for the sale and distribution of any product, commodity, article or service.

1.7 "Commonwealth" shall mean the Commonwealth of Pennsylvania.

1.8 "Connection Ordinance" shall mean Ordinance No. 60 enacted by the Township on July 20, 1993, inter alia, compelling all Owners of Improved Property whose principal building is accessible to the Sewer System of the Authority, to connect to such Sewer System of the Authority and use the same in such manner as the Township may ordain.

1.9 "DEP" shall mean the Department of Environmental Protection of the Commonwealth.

1.10 "Domestic Sewage" shall mean all Sewage other than Industrial Wastes.

1.11 "Dwelling Unit" shall mean any room, group of rooms, house trailer, apartment, condominium, cooperative or other enclosure connected, directly or indirectly to the Sewer System of the Authority and occupied or intended for occupancy as living quarters by an individual, a single family or other discrete group of persons, excluding institutional dormitories.

1.12 "Educational Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly, to the Sewer System of the Authority and used or intended for use, in whole or in part, for educational purposes, including both public and private schools.

1.13 "EDU" shall mean an Equivalent Dwelling Unit.

1.14 "EPA" shall mean the Environmental Protection Agency of the United States of America.

1.15 "Equivalent Dwelling Unit" shall mean not in excess of 12,500 gallons per quarter of Sewage based upon metered sewage, water consumption, or adjusted water consumption or whichever of said methods is applicable for the determination of volume, as provided for in this Agreement with reference to Schedule 1.15, attached hereto and incorporated herein by reference.

1.16 "Fiscal Year" shall mean the calendar year beginning January 1 and ending on December 31.

1.17 "Improved Property" shall mean any property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Domestic Sewage and/or Industrial Wastes shall be or may be discharged, which is located within the Sewered Area and subject to the Connection Ordinance.

1.18 "Indemnified Party" shall have the meaning ascribed thereto in Section 6.6 hereof.

1.19 "Industrial Establishment" shall mean any Improved Property used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property from which wastes, in addition to or other than Domestic Sewage, shall or may be discharged.

1.20 "Industrial Sewer Use Ordinance" shall mean Ordinance No. 73 enacted by the Township on October 28, 1997 relating to pretreatment and discharge of Sewage.

1.21 "Industrial Sewer Use Resolution" shall mean the Industrial Sewer Use Resolution [Schuylkill Haven] adopted by the Authority on October 14, 1997, effective October 28, 1997, relating to pretreatment and discharge of Sewage.

1.22 "Industrial Wastes" shall mean any and all Sewage and other liquid wastes discharged from an Industrial Establishment other than Domestic Sewage discharged from such Industrial Establishment.

1.23 "Institutional Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly to the Sewer System of the Authority, including institutional dormitories in Educational Establishments, which do not constitute a Commercial Establishment, a Dwelling Unit or an Industrial Establishment.

1.24 "Long Run Project" shall mean the sewage collection project which the Authority plans to construct for units located along S.R. 443 in the Township with or without the joint cooperation of the Wayne Township Authority, Schuylkill County, Pennsylvania.

1.25 "Owner" shall mean any Person vested with title, legal or equitable, sole or partial, of any Improved Property.

1.26 "Operating Costs" shall consist of the line items set forth on Schedule 1.26, attached hereto and incorporated herein by reference. Notwithstanding anything contained in this Agreement, including without limitation Schedule 1.26, to the contrary, Operating Costs shall be strictly limited to costs and expenses specifically associated with the Sewage System of the Borough.

1.27 "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

1.28 "Sewage" shall mean the water-carried wastes from single and multi-family residences, business buildings, institutions and industrial establishments.

1.29 "Sewage System of the Borough" shall include all facilities located within the Borough for collecting, transporting and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation in the case of the Borough and the Sewage Treatment Plant.

1.30 "Sewage System of the Authority" shall include all facilities of the Authority now or hereafter located in the Township for the purpose of transporting Sewage to the Sewer System of the Borough.

1.31 "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by the Borough for treating and disposing of sewage, presently existing and all future improvements and additions thereto.

1.32 "Sewered Area" shall mean these areas of the Township served by the Sewer System as determined and designated, from time to time, by the Township and the Authority.

1.33 "Township" shall mean North Manheim Township, Schuylkill County, Pennsylvania, a political subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through its authorized representatives.

1.34 "Treatment Unit Rate" shall mean the charge applicable to Sewage for treatment at the Sewage Treatment Plant as determined in accordance with Paragraph 3.4.

1.35 "User Charge" shall mean the annual sewer rental or charge imposed by the Authority hereunder, as amended from time to time, against the Owner of each Improved Property, for the use of the Sewage System of the Authority.

1.36 Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Provision of Sewage Service.

2.1 Agreement to Provide Service. The Borough agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide the Authority, as a single bulk customer, Sewage treatment and disposal services in the Sewage Treatment Plant as provided for herein. Borough agrees to maintain the Sewage System of the Borough in good repair and order and efficient operating condition necessary to satisfy all laws, regulations and standards prescribed or enforced by DEP, EPA, and any other governmental authority having jurisdiction thereof. However, the Borough shall not be responsible for damage to the Township, Authority or its residents, caused by a malfunction of the Sewage Treatment Plant or the Borough's sewage transportation system, which could not reasonably have been avoided. Borough shall agree to provide upon request, the annual reports, prepared by its engineer, regarding the operation, estimated expenditures and recommendations and advice with

respect to the Sewage System of the Borough as required by Section 9.09 of the Trust Indenture, dated May 15, 1989, between the Schuylkill Haven Municipal Authority and Pennsylvania National Bank and Trust Company, and Section 10.01 of the Lease, dated May 15, 1989, between the Borough and the Schuylkill Haven Municipal Authority.

2.2 Grant of Right to Connect. The Borough, subject to all of the terms and conditions of this Agreement, herewith grants to the Township and the Authority the right to continue the connection of their present and future Sewage flows through the Sewage System of the Authority to the present and any future Sewage System of the Borough for the purpose of discharge and disposal of Sewage either directly or through the sewage transportation system of the Borough. The present Sewage flows to the Sewage System of the Borough, all within the confines of the Township and being more fully set forth and described on Schedule 2.2, attached hereto and incorporated herein by reference, emanating from those portions of the Township that the Borough has agreed to accept (which portions of the Township are set forth on the drawing comprising the last page of Schedule 2.2), and quantities of said present flows are predicated upon conditions existing as of the date of the execution of this Agreement. Any further expansion or extension of the Sewage System of the Authority, consisting of one (1) or more additional connections, shall be subject to the written approval of the Borough, which approval shall not be unreasonably withheld. As an alternative to obtaining the written approval of the Borough as aforesaid, the Township/Authority shall have the option to negotiate a specified reservation of Sewage treatment capacity with the Borough.

2.3 Agreement to Transport. The Borough agrees to take all necessary steps to carry the Sewage passing through the Township's and Authority's connection or connections to Borough's Sewage Treatment Plant, whether said connections are made directly to the Sewage Treatment Plant or to the Borough's sewage transportation system for transportation to the Sewage Treatment Plant, and to treat and dispose of such sewage in a manner required by the EPA, DEP, or any successor regulatory bodies.

2.4 Prohibition of Storm Water and Certain Substances. Township, Authority and Borough agree that they will take all reasonable efforts to insure that the Sewage passing through their respective Sewage Systems shall not contain storm water, roof or surface drainage. Further, Township, Authority and Borough shall make all reasonable efforts to prohibit the entrance into their respective Sewage Systems of all prohibited industrial waste, chemicals, and other matter as defined in this Agreement. The Borough and the Authority shall be able to take samples and make analysis of such samples at anytime.

3. Borough Charge.

3.1 Commitment to Pay Borough Charge; Separating Billing for Industrial Surcharge. The Authority shall pay Borough for the rights, privileges, and benefits hereunder, the Borough Charge calculated in accordance with this Section and paid on a monthly basis. The Borough Charge for Industrial Wastes shall be increased by any surcharge applicable to such Industrial Wastes, but any such surcharge shall be billed directly by the Borough to the generator of such Industrial Wastes.

3.2 Annual Certification of EDU's. On or before October 1 of each year during the term of this Agreement, the Authority shall certify to the Borough the location and apparent use of each Improved Property in the Sewered Area served by the Sewage System of the Authority on such date. On each annual certificate, the Authority shall also include the number of EDU's by which each Improved Property shall be classified in accordance with Section A of Schedule 1.15. The Borough, upon written notice to the Authority, may, at any time during any year, elect, in the case of Improved Property from which water consumed or sewage discharged is metered by device reasonably acceptable to the Borough and the Authority, to determine the number of EDU's by which any Improved Property shall be classified in accordance with Section B of Schedule 1.15.

3.3 Method of Charges for Metered Water Customers and Non-Water Customers. For Improved Properties serviced by the Borough water system and metered for such, the Borough Charge shall be determined by multiplying the water usage for such Improved Properties as metered by the Treatment Unit Rate per 1,000 gallons. In all other cases, the Borough Charge shall be determined by multiplying the total of all EDU's for all Improved Properties in the Sewered Area served by the Sewage System of the Authority during all or any part of the month for which such calculation shall be performed, by the Treatment Unit Rate per 1,000 gallons of Sewage (as further defined in Section 3.4 and 3.5 hereof) and by 12.5. To illustrate the application of the foregoing, the parties agree that if the Treatment Unit Rate is $2.50 per 1,000 gallons of Sewage, and if there are 50 Improved Properties served by the Sewer System of the Authority in the Sewered Area, with a combined total of 75 EDU's, and if one EDU is deemed to be 12,500 gallons per quarter, the Borough Charge for the month shall be 75 x $2.50 x 12.5 ÷ 3 = $781.25.

3.4 Treatment Unit Rate from October 1, 1997 through December 31, 1999. From October 1, 1997 through and including December 31, 1999, the Treatment Unit Rate shall be $2.50 per 1,000 gallons and thereafter the Treatment Unit Rate shall be the total annual Operating Costs as budgeted for the ensuing Fiscal Year of the Borough, determined at least sixty (60) days prior to the close of the current Fiscal Year, less any deductions therefrom as provided below, divided by the total number of Equivalent Dwelling Units serviced by the Borough's Sewage Treatment Plant. Notwithstanding anything contained herein to the contrary, the Treatment Unit Rate shall be reduced by the amount of any state or federal subsidies the Borough receives for the operation of the Sewage Treatment Plant when calculating said rates. Likewise, any monies received by the Borough, as applicable, during the previous Fiscal Year, which represent any surcharges or pretreatment charges shall be deducted from the total Operating Costs when calculating said rates. An illustration of the calculation of the Treatment Unit Rate is set forth in Schedule 3.4, attached hereto and incorporated herein by reference.

3.5 Incorporation Treatment Unit Rate after December 31, 1999. On and after January 1, 2000, the Borough may only increase the Treatment Unit Rate on or before November 15 of any year for the next Fiscal Year if the Borough increases user rates and fees for all customers or users of the Sewage System of the Borough due to (i) an anticipated and budgeted increase in Operating Costs for the next Fiscal Year, and/or (ii) an anticipated and budgeted decrease in Sewage flows to the Sewage Treatment Plant for the next Fiscal Year. Any such increase to the Treatment Unit Rate shall be instituted only to the extent of such anticipated and budgeted increase in Operating Costs

and/or decreased Sewage flows. The Borough shall provide the Authority with a written report by the fifteenth (15th) day of each month setting forth the Sewage flows to the Sewage Treatment Plant during the immediately preceding month.

3.6 Comparison of Actual to Budgeted Operating Costs. Within five (5) months of the close of the Fiscal Year during which an increase of the Treatment Unit Rate was assessed by the Borough to the Authority, the actual Operating Costs and Sewage flows to the Sewage Treatment Plant for such Fiscal Year shall be calculated in accordance with Section 3.7. The actual Operating Costs and Sewage flows to the Sewage Treatment Plant shall be compared to the budgeted Operating Costs and Sewage flows to the Sewage Treatment Plant upon which the increase in the Treatment Unit Rate was based and shall be compared to the Borough Charge for that Fiscal Year. If the actual amounts vary from budgeted amounts, the Borough Charge for the current Fiscal Year will be adjusted reasonably to compensate for the difference in the actual versus the budgeted amounts.

3.7 Records to be Maintained. The Borough shall keep appropriate audited records and accounts with respect to Operating Costs so that determinations which shall be necessary can be made promptly, at the required times, with fairness and accuracy. Such records and accounts shall be open to inspection by the Township and the Authority, upon reasonable notice, at reasonable times. A copy of the certified audits of appropriate records and accounts of the Borough with respect to the Sewage System of the Borough shall be provided to the Authority on an annual basis contemporaneously with the filing of such audit with the Commonwealth of Pennsylvania. Any additional cost in preparing this report shall become part of the total Operating Costs.

3.8 Billings from the Borough to the Authority; Late Charges. The Borough Charge shall be calculated by the Borough and invoiced to the Authority each month, and shall be accompanied by a report of the manner of calculation, including water meter readings for each Improved Property for which water meter readings were used to calculate the Borough Charge. The Authority covenants to bill its customers on a quarterly basis. The Borough Charge, therefore, shall be paid by the Authority to the Borough within forty (40) days of the Authority issuing its bills to its customers for the period covered by the Borough's invoices for the Borough Charge. Any delinquent amounts of the Borough Charge shall be subject to a penalty of ten (10%) percent or such lesser amount as may be established by law regarding the assessment of such penalties; provided, however, that the Authority shall not be obligated to pay such penalty to the Borough unless and until the Authority receives payment of such penalty from the delinquent customer(s) of the Authority, in which event the Authority shall promptly, but not later than thirty (30) days from the date of receipt, remit payment of such penalty to the Borough. In the event that the Borough imposes such penalty on the Authority, the Authority further agrees to (i) impose a comparable penalty on the corresponding delinquent Authority customers and to apply future receipts from such delinquent customers first to satisfaction of such penalty (with corresponding remittance of any penalty owed to the Borough), and (ii) promptly, but not later than ninety (90) days from the date of the Borough's imposition of such penalty (or such longer period as may be required pursuant to a change in law or regulation subsequent to the date hereof), file a municipal lien against the applicable property of such delinquent customer.

3.9 Charges to Conform to Authority Act. The Borough agrees that any other charges shall be in conformance with the Authorities Act.

3.10 Prohibition Against Subsidy. The cost of transportation and treatment of Sewage collected outside of the Borough shall not be subsidized by the Borough or its residents, and the cost of the transportation and treatment of Sewage collected from connections within the Borough shall not be subsidized by the Township, or its residents.

3.11 Renegotiation Based on Regulatory Charges. Whenever new rules, regulations or legislative acts promulgated or enacted by state or federal regulatory bodies, or the interpretation of the same by such state or federal regulatory bodies having jurisdiction, require the expenditure of additional funds concerning the operation of the Sewage Treatment Plant, which were not foreseen or contemplated upon the execution of this Agreement, then in such event, this Agreement may be renegotiated upon written notice from the Borough to the Authority, solely as to the payment of any such additional expenses of operation of the Sewage Treatment Plant incurred as a direct result of such new rules, regulations, acts or interpretations.

4. Borough Tapping Fees.

4.1 Tapping Fee Due from Authority Upon Connection. The Authority shall pay Borough a tapping fee to be determined in accordance with the Authorities Act. The tapping fee shall be payable by the Authority to the Borough within thirty (30) days after connection of the Improved Property to the Authority Sewage System.

4.2 Administration of Tapping Fee. All tapping fees paid by the Authority to the Borough pursuant hereto shall be held by the Borough for the benefit of the Borough and the Authority to defray any future capital costs associated with any expansion of the DEP permitted capacity of the Sewage Treatment Plant requested or necessitated by the Authority. The Borough shall not be required to segregate or separately account for the tapping fees paid by the Authority to the Borough; provided, however, that the Authority shall receive an appropriate credit for all such tapping fee payments against any sums the Authority might otherwise owe to the Borough in conjunction with any such Sewage Treatment Plant expansion.

5. Long Run Project.

5.1 Flow Meter. The Authority shall install and maintain a sewage flow meter at the point of connection of the Long Run Project to the Borough's Sewage System strictly for the purpose of monitoring flows into the Sewage System of the Borough. The meter to be installed pursuant hereto shall not be used in conjunction with the establishment and/or payment of Borough Charges and fees under Sections 3 and 4 hereof. The meter shall be accessible at any time by either the Borough or the Authority.

5.2 Point of Connection. The point of connection of the Long Run Project to the Sewage System of the Borough shall be at Cleveland Street within the Borough.

5.3 Excess Flows. In the event that the actual total quarterly flow of Sewage of the Township discharged to the Sewage System of the Borough from the Long Run Project exceeds ten (10%) percent of the predicted Sewage (which, for purposes of this Section 5.3, shall mean the actual number of EDU's), the Borough shall provide written notice to the Authority which shall refer to

this provision and advise the Authority of the extent of such excess Township Sewage flow. The Authority shall have thirty (30) days from its receipt of such written notice to reduce the excess Township Sewage flow; provided that if the Authority shall in the reasonable discretion of the Borough then be diligently pursuing a remedy for such condition within such thirty (30) day period, the Authority shall have such additional time as the Borough in its discretion reasonably exercised may grant to reduce such excess Township sewage flow. Upon the expiration of such cure period or periods, the Authority will pay the Borough Charge for any remaining excess Township Sewage flow from the Long Run Project.

5.4 Application of Agreement to Long Run Project. Except as otherwise provided in this Section 5, all terms and conditions of this Agreement shall be equally applicable to and binding upon the Long Run Project.

6. Treatment of Industrial Waste.

6.1 Amendment to Borough Industrial Use Ordinance. Whenever the Borough amends its industrial sewer use ordinance, it will forward a copy of such amendments within ten (10) business days of enactment thereof. The Township and the Township Authority will enact amendments to the Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution at least as stringent as those adopted by the Borough within sixty (60) business days of receipt thereof.

6.2 Periodic Review of Industrial Use Ordinances. The parties will periodically review their respective industrial sewer use ordinances and resolutions and jointly draft and adopt amendments (which are equivalent in scope and stringency) to their respective industrial sewer use ordinances when deemed necessary for the effective administration and operation of the pretreatment program. This review will be conducted no less than once every three (3) years. However, any party may request a joint review whenever such party believes that a review is necessary. A request for such joint review must be forwarded by the requesting party to all other parties stating the reason for the request and the date on which the review is requested to take place. Within thirty (30) days of receipt of the request, the receiving party must respond to the request, stating that the proposed date is satisfactory or proposing an alternate date(s) for the review. In any case, the joint review will take place within sixty (60) days of the request.

6.3 Cooperative Enforcement. The Township and the Township Authority will adopt and, subject to section 5 hereof, diligently enforce local limits which address at least the same pollutant parameters and are at least as stringent as the local limits enacted by the Borough. Notwithstanding anything to the contrary contained herein, enforcement of the local limits shall be the responsibility of the Borough/Borough Authority. If any revisions or additions are made to the Borough or Borough Authority's local limits, the Borough and Borough Authority will forward to the Township and the Township Authority a copy of any such revisions or additions to the local limits within ten (10) business days of enactment thereof, together with an explanation of the reason for such revisions or additions. To the extent that the revisions or additions are consistent with applicable laws and regulations, the Township and the Township Authority agree to adopt any revisions or additions made to the Borough or the Borough Authority's local limits within sixty (60) business days.

6.4 Delegation of Enforcement to Borough. The Borough Authority, on behalf of and as an agent for the Township and the Township Authority, will perform technical and administrative duties necessary to implement and enforce the Township and the Township Authority's Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution. The Borough and the Borough Authority will (1) update the industrial waste survey; (2) issue permits to all users required to obtain a permit and who submit a properly completed permit application in form acceptable to the Borough Authority and who comply with all permit conditions and to deny permits to those who do not; (3) conduct inspections, sampling, and analysis; (4) take all appropriate enforcement action as outlined in the Borough and Borough Authority's enforcement response plan; (5) perform any other technical or administrative duties the parties to this agreement, by their mutual written supplement to this Agreement, deem appropriate; and (6) assume responsibility for billing and collection of fees and charges to industrial users relating to the industrial sewer use program, provided nevertheless, that neither the Borough nor the Borough Authority shall have any obligation to assess or collect the basic User Charge from industrial users within the Township, which obligation shall continue to be that of the Township Authority. In addition, the Borough and Borough Authority may, as an agent of the Township and the Township Authority, take emergency action to stop or prevent any discharge which presents or may present an imminent danger to the health or welfare of humans, which reasonably appears to threaten the environment, or which threatens to cause interference, pass through, or sludge contamination.

6.5 Costs of Enforcement and Reviews; Mediation. The Borough and the Borough Authority will be responsible for all costs (including labor, equipment, etc.) incurred (including without limitation costs of the Township and Township Authority) in implementing and enforcing the Township's and the Township Authority's Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution on behalf of the Township and the Township Authority, if and to the extent that the Borough or the Borough Authority shall request that the Township or the Township Authority incur those costs, or if the Borough or the Borough Authority shall cause the Township or the Township Authority to incur those costs by reason of the failure of the Borough or the Borough Authority to perform the duties delegated to the Borough and the Borough Authority.

The Borough and the Borough Authority shall reimburse the Township and the Authority, as the case may be, for all legal and engineering expense incurred by the Township or the Authority subsequent to October 11, 1995, with respect to any reviews, approvals or other official action which the Borough or the Borough Authority may request of the Township or the Authority with respect to the future performance or amendment of this Article 6, or the adoption or amendment of any ordinance or regulation adopted pursuant to this Article 6, if requested to do so by the Borough or the Borough Authority or required by the terms of this Article 6. Any such professional expense shall be reasonable, and in accordance with the ordinary and customary fees charged by the Municipal Engineer or Solicitor for work performed for the Township or the Authority, and in no event shall the fees exceed the rate or cost charged by the Engineer or Consultant to the municipalities when fees are not reimbursed or otherwise imposed on third parties. Nothing contained in this Section 6.5, however, shall be construed to limit or otherwise affect the rights of the Township and Authority and the obligations of the Borough and the Borough Authority under

Section 6.6 hereof. Requests for reimbursement shall be submitted by requisition in the form of Schedule 6.5, attached hereto and incorporated herein by reference, together with copies of the invoices for which reimbursement is requested, which invoices shall describe the services performed and time expended in performing those services, in commercially reasonable detail.

In the event that the Borough or Borough Authority disputes the amount of any fee for which reimbursement is required, the Borough or the Borough Authority shall reimburse the undisputed portion of the fees and shall notify the Township or the Authority within thirty (30) days of the date of billing. If within forty-five (45) days from the date of billing the parties to the dispute cannot agree, the amount which is reasonable and necessary, each party to the dispute shall select a Municipal Solicitor and Municipal Engineer then representing another authority or municipality located within Schuylkill County. Those two Municipal Engineers and Municipal Solicitors shall select a third Municipal Solicitor and Municipal Engineer, who in neither case shall have been retained by or performed services for any part to this dispute within the preceding five (5) years. In the event that the dispute relates solely to either engineering charges or solicitor charges, then only the application three (3) member panel shall be formed.

The panel of three (3) Municipal Engineers and/or three (3) Municipal Solicitors shall make a determination as to the amount for which reimbursement is claimed, which is reasonable and necessary, and shall, if requested by either party to do so, conduct a hearing to permit each side to present evidence in support of its position. The decision of the panel shall be binding and non-appealable. The panel may impose the reasonable costs of any such proceeding on either or both of the parties as it may determine.

6.6 Indemnity. The Borough and the Borough Authority unconditionally agree to indemnify, defend, and hold harmless the Township and the Township Authority, its officers, members, supervisors, employees, and agents, any successor to Township's or the Township Authority's interest in and to the Sewer System of the Authority and such successor's officers, members, supervisors, employees, and agents (each an "Indemnified Party") from against all claims, losses, costs, expenses, damages, obligations, and liabilities of any nature whatsoever (including, without limitation, litigation costs and attorneys fees and expenses) made against, or suffered or incurred by, any Indemnified Party as a result of any claim, action, suit, or proceeding brought or threatened by any person by reason of the failure of the Borough or the Borough Authority to perform the duties delegated to the Borough and the Borough Authority with respect to this Article 6, including without limitation any such claims, actions, suits or proceedings based on the matters set forth in Section 6.5 hereof, but excluding any such claim, action, suit or proceeding resulting from a breach of this Agreement or any regulatory requirement by the Township or Township Authority.

6.7 Disclaimer of Responsibility for Debt. The execution and delivery of this Agreement by the Township and the Township Authority shall not create or impose liability on the Township and/or Township Authority for (1) any indebtedness incurred by the Borough and/or the Borough Authority relating to the subject matter of this Amendment No. 1 or otherwise, (2) any deficiency or other judgment entered in relation to such indebtedness, (3) any fees or charges imposed by the Borough and/or the Borough Authority, with or without the cooperation of the Township or the Township Authority, on Township users to offset such indebtedness or otherwise related to the

subject matter of this Agreement, or (4) any fines, penalties, assessments or charges imposed by EPA or DEP in relation to the subject matter of this Agreement, unless caused by the breach by the Township or Township Authority of this Agreement, or of any regulation or requirement imposed on the Township or the Township Authority with which the Township or the Township Authority does not comply, unless compliance therewith, on behalf of the Township and Township Authority by the Borough and Borough Authority, is required by the terms of this Agreement.

6.8 Notification of Claims. In every instance where the Township or Township Authority shall have notice that any claim or demand whatsoever exists or has been asserted or is threatened, which would constitute a claim or demand hereunder to be indemnified by the Borough and the Borough Authority, the Township or Township Authority, as the case may be, shall promptly notify the Borough and the Borough Authority of the claim or demand. The Borough and the Borough Authority reserve the right to contest through their counsel and at their own expense such claims or demands including the right to appeal to the court with the highest appellate jurisdiction. If the Borough and the Borough Authority shall fail to contest and resist any such claim or demand within a reasonable time after receiving notice thereof (but not later than seven (7) days after such notice), the Township or Township Authority, as the case may be, shall have the right to satisfy and discharge the same by suit, settlement, or otherwise. The amount of any such claim or demand determined to be due by way of suit, settlement or otherwise shall immediately become due and payable by the Borough and the Borough Authority to the Township or Township Authority, as the case may be, upon demand.

6.9 Extra-Territorial Industrial Users. Before an industrial user located outside the jurisdictional boundaries of the Township discharges into the Sewer System of the Authority, the parties hereto will enter into an agreement with the jurisdiction in which such industrial user is located. Such agreement shall be substantially equivalent to this Article 6 and must be fully secured prior to a discharge from any user in the outside jurisdiction.

6.10 Arbitration of Section 6 Issues. Notwithstanding anything contained elsewhere in this Agreement to the contrary, any disputes arising out of the subject matter of this Article 6 will be submitted to binding arbitration performed in accordance with the rules of the American Arbitration Association. A decision reached in arbitration will in no way limit the Borough's or the Borough Authority's power to enforce requirements directly against users located in the Township, nor will it preclude the Borough or the Borough Authority from seeking other remedies against the Township or the Township Authority including, but not limited to, specific performance.

6.11 Compliance with Federal Clean Water Act. The subject matter of this Article 6 shall be reviewed and revised to insure compliance with the Federal Clean Water Act (42 U.S.C. § 1251 et seq.) and rules and regulations (see 40 C.F.R. Part 403) issued thereunder, as necessary.

6.12 Survival of Covenants. All covenants and agreements made in Sections 6.5, 6.6, 6.7 and 6.8 hereof shall survive any termination of this Agreement.

7. Miscellaneous.

7.1 Insurance. The Borough will insure, or cause to be insured, the Sewage Treatment Plant with a responsible company or companies authorized and qualified to do business under laws of the Commonwealth of Pennsylvania, against loss or damage by fire and such other risks (including public liability) and casualties and in such amounts as are usually carried on like properties in said Commonwealth and as shall be reviewed and approved, at least annually, by the Borough's consulting engineers or other insurance advisor. Such insurance policies shall be nonassessable. Immediately upon the occurrence of any loss or damage to any part of the Sewage Treatment Plant which is covered by insurance, the Borough will commence and promptly complete, or cause to be so commenced and promptly completed, the repairing, replacement or reconstruction of the damaged or destroyed property according to plans and specification prepared by the Borough's consulting engineers and shall collect and apply, or cause to be applied, the proceeds of such insurance to the cost of such repair, replacement or reconstruction.

7.2 Access to Information. Each party shall provide the other, from time to time, all information relevant to the proper administration of their responsibilities under this Agreement, or in respect to the interpretation hereof, as, and in such form and detail as, may be reasonably requested and each shall, at all reasonable times and from time to time, permit their representatives to examine and inspect their respective records and physical facilities relevant to the subject matter of this Agreement.

7.3 Nonexclusivity. This Agreement is non-exclusive in nature and the Authority may enter into agreements with other Persons to collect, transport and/or treat all or any portion of the Sewage originating in the Township or perform such services for its own account. This is an Authority requirements contract only and nothing contained in this Agreement is explicitly or impliedly intended to create any obligation on the Authority to provide all or any portion of the Sewage originating in the Township to the Borough for transportation or treatment.

7.4 Force Majeure. Notwithstanding any other provision of this Agreement, no party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of God or riot, sabotage, public calamity, flood, strike, breakdown of the Sewage System of either party hereto, or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

7.5 Indemnification for Negligence. Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Service Agreement due to the negligence of such party or its agents or employees.

7.6 Severability. Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected; and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein.

7.7 Headings. The headings in this Agreement are solely for convenience and shall have no effect in the legal interpretation of any provision hereof.

7.8 Term. This Agreement shall become effective as of the date hereof and shall continue in full force and effect for a term of forty (40) years.

7.9 Waiver of Strict Performance. The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

7.10 Continued Payment of Borough Charge. In the event that said action or suit is based on the amount of the Borough Charge, the Authority shall continue to pay the Borough Charge during the pendency of said action or suit at the rate in effect prior to said action or suit subject ultimately to adjustment based on the disposition of said action or suit.

7.11 Counterpart Execution. This Agreement may be executed in any number of counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

7.12 Limitation on Assignment. The Borough shall not voluntarily assign this Agreement without the consent of the Authority, except that the Borough may assign its rights hereunder to (i) a municipal authority of which the Borough is an incorporator, or (ii) an entity having obtained approval of such assignment by the Pennsylvania Public Utility Commission, or any successor thereto. The Authority shall not voluntarily assign this Agreement without the consent of the Borough, except that the Authority may assign its rights hereunder to (i) the Township, (ii) a municipal authority of which the Township is an incorporator or which is a successor to the Authority by merger or consolidation, or (iii) an entity having obtained approval of such assignment by the Pennsylvania Public Utility Commission, or any successor thereto. Subject to the foregoing this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

7.13 Prior Agreement Supersedes. This Agreement supersedes and repeals any prior agreement, contracts, and understanding, written or oral, by and among the parties hereto with respect to the subject matter contained herein. This Agreement contains the entire agreement among the parties hereto, and no oral statements or representations or prior written matter not contained in this instrument shall have any force and effect.

7.14 Amendments. This Agreement may not be modified or amended except in a writing signed by the parties hereto.

7.15 Choice of Law. This Agreement shall be construed according to, be subject to and be governed by the laws of the Commonwealth.

7.16 Recordings. This Agreement may be recorded by either party hereto.

7.17 Most Favored Municipality Provision. In the event that the Borough enters into any agreement of a similar nature to this Agreement concerning sewage treatment at the Sewage Treatment Plant with any other municipality, municipal authority or similar entity, upon more favorable terms as concerns such municipality, municipal authority or similar entity than those provided herein, then the parties hereto agree that such terms shall be incorporated herein by amendment, upon request by the Authority. Upon request, the Borough shall furnish to the Authority a copy of all sewage treatment agreements outstanding between the Borough and any other municipality whose sewage is treated at the Sewage Treatment Plant.

7.18 Termination on Default. In consideration of the within terms and conditions, the parties hereto, agree that if either party fails to observe and perform any of the covenants, conditions or agreements enumerated herein, the non-defaulting party may, upon sixty (60) days prior written notice, declare this Agreement to be broken and may withdraw therefrom retaining, however, all legal rights to institute action, either in law or in equity, for damages caused thereby; provided that if the defaulting party shall in the reasonable discretion of the non-defaulting party then be diligently pursuing a remedy for such condition within such sixty (60) day period, and is not otherwise in default, the defaulting party shall have such additional time as the non-defaulting party in its discretion reasonably exercised may grant to cure such condition and this Agreement shall then remain in full force and effect.

7.19 Remedies. Upon the occurrence of a default or breach of this Agreement, which is not corrected within the time provided in Section 7.18 hereof, the non-defaulting party may pursue any remedy at law or in equity for such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers and their respective seals to be hereunto affixed.

ATTEST:

(Corporate Seal)

BOROUGH OF SCHUYLKILL HAVEN

By _____
Title:

ATTEST:

(Corporate Seal) SECRETARY

NORTH MANHEIM TOWNSHIP AUTHORITY

By _____
Title: CHAIRMAN

ATTEST:

(Corporate Seal)

TOWNSHIP OF NORTH MANHEIM

By _____
Title: CHAIRMAN

CONSENT AND JOINDER OF SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

The Schuylkill Haven Municipal Authority, as owner of the Sewage System of the Borough, hereby consents to and joins in this Inter-Municipal Sewage Agreement.

SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

ATTEST:

Bruce A. Cronebenger
(Corporate Seal)

By Francis J. Brown
Title: CHAIRMAN

SCHEDULE 1.15
METHODS OF DETERMINING EQUIVALENT DWELLING UNITS

A. Based on Description of Property

Description of Improved Property	Unit of Measurement	Number of EDU's Per Unit of Measurement
Residential Dwelling Unit (year-round or seasonal)	Each Dwelling Unit	1
Retail store, professional offices or other commercial enterprise	1 to 10 employees	1
	Each Additional 10 employees or fraction thereof	1
Hotel, motel or boarding house (not including restaurant facilities)	1 to 4 rental rooms	1
	Each additional 4 rooms or fraction thereof	1
Restaurant, club, tavern or other retail food or drink establishment	1 to 10 customer seats	1
	Each additional 10 seats or fraction thereof	1
Automobile service station or commercial vehicle repair shop	1 or 2 bays	1
	Each additional 2 bays or fraction thereof	1
Beauty parlor or barber shop (attached to or part of a Dwelling Unit)	First chair	2
	Each additional chair	1
Beauty parlor or barber shop (not attached to or part of a Dwelling Unit)	First chair	1
	Each additional chair	1
School	Per each 20 pupils, faculty administrators and staff	1
Church	Each	1
Fire Company	Each	1
Community Hall	Each	1
Funeral Home	Each	1
Industrial/Manufacturing establishment	1 to 10 employees	1
	Each additional 10 employees or fraction thereof	1

Equivalent Dwelling Units applicable to businesses, retail stores and professional offices may be determined on the basis of the average number of full and part time employees (including individual owners and employers) during the calendar quarter preceding the date the owner of such improved property is required to connect to the Sewer System in accordance with the Connection Ordinance of the Township.

B. Metered Rate Basis

Equivalent Dwelling Units for any Improved Property may be determined on a metered rate basis calculated according to:

(1) Metered volume of potable water usage by the Improved Property, adjusted, if appropriate, or

(2) Actual metered volume of wastewater discharged by the Improved Property into the Sewer System.

In either of the foregoing cases, such Equivalent Dwelling Units shall be computed in accordance with the following metered rate per quarter annum:

O to 12,500 gallons (1,671 cu. ft.) per quarter 1 EDU; and each additional 12,500 gallons (1,671 cu. ft.) or fraction thereof 1 EDU.

C. Estimated Rate Basis

Equivalent Dwelling Units may be based upon the Authority's estimate of potable water consumed by any Improved Property per quarter-annum.

OPERATING COSTS [SCHUYLKILL HAVEN SEWER BUDGET] - SCHEDULE 1.26

SEWER FUND

CLASSIFICATION

COMPILATION SHEET

(A) ADMINISTRATIVE
(B) SEWER COLLECTION
(C) SEWAGE DISPOSAL
(D) MISCELLANEOUS
(E) INSURANCE
(F) DEBT SERVICE
(G) RESERVE

TOTAL EXPENDITURES

SEWER FUND CLASSIFICATION	ADMINISTRATIVE (A)
400.100 SALARIES & WAGES[1]	
400.101 WAGES "(METER READER)	
400.210 OFFICE SUPPLIES	
400.231 GAS, OIL & GREASE	
400.239 MISCELLANEOUS	
400.251 VEHICLE PARTS	
400.252 TIRE & TIRE REPAIR	
400.253 PARTS	
400.310 BANK CHARGES	
400.311 AUDIT	
400.312 TRUSTEE FEES BONDS	
400.313 ENGINEERING	
400.314 LEGAL SERVICES "(SOLICITOR)	
400.315 LEGAL "(AUTHORITY)	
400.321 TELEPHONE	
400.331 TRAINING & EDUCATION	
400.340 ADV. & PRINTING	
400.375 MAINTENANCE & REPAIR	
400.385 RENTALS	
400.387 SEWER RENTAL PAYMENT[2]	
400.420 DUES AND PUBLICATIONS	
400.450 OUTSIDE CONTRACTOR WORK	
400.451 OUTSIDE VEH MAINT	
400.452 CONTRACT UTIL/PROGRAMS	

[1] Salaries and wages shall be multiplied by fifty (50%) percent to establish the portion of such salaries and wages allocable to the North Manheim Township Authority.

[2] The sewer rental payment consists of a payment to Cressona Borough for several Schuylkill Haven Borough customers serviced by the Cressona Borough sewage treatment plant. This expense is excluded in its entirety in determining expenses allocable to the North Manheim Township Authority.

SEWER FUND CLASSIFICATION	ADMINISTRATIVE (A)
400.510 COMMENDATIONS	
400.531 MGMT. FEE TO GEN FUND[3]	
400.740 COMPUTER HARDWARE	
400.743 OFFICE EQUIPMENT	
400.744 MAJOR EQUIPMENT	
400.745 BAD DEPT EXPENSE	
SUBTOTAL	

[3] The management fee applies only to Schuylkill Haven Borough and is excluded in its entirety in determining expenses allocable to the North Manheim Township Authority.

OPERATING COSTS [SCHUYLKILL HAVEN SEWER BUDGET] - SCHEDULE 1.26

SEWER FUND CLASSIFICATION	SEWER COLLECTION(B)[1]
425.100 SALARIES & WAGES	
425.210 OFFICE SUPPLIES	
425.222 CHEMICALS	
425.231 GAS, OIL & GREASE	
425.238 SPECIAL WORK CLOTHES	
425.242 PROP. RESTITUTION SUPPLIES	
425.243 MANHOLE BOXES/ACCESS	
425.244 PIPE & PIPE FITTINGS	
425.245 SAND & GRAVEL	
425.246 SAFETY EQUIPMENT	
425.247 CONCRETE & ASPHALT	
425.248 LUMBER SUPPLIES	
425.249 MISCELLANEOUS	
425.252 TIRES & TIRE REPAIR	
425.253 PARTS	
425.260 SMALL TOOLS & MINOR EQUIP.	
425.313 ENGINEERING SERVICES	
425.317 SURVEYING SERVICES	
425.318 CONTR. EMERG. LINE CLEAN	
425.321 TELEPHONE	
425.327 RADIO MAINTENANCE	
425.331 TRAVEL & EDUCATION	
425.360 UTILITIES	
425.384 EQUIPMENT RENTAL	

SEWER FUND CLASSIFICATION	SEWER COLLECTION(B)[4]
425.448 OUTSIDE CONTRACT WORK	
425.451 OUTSIDE VEH. MAINT.	
425.740 MAJOR EQUIPMENT	
SUBTOTAL[4]	

[4] The subtotal of Sewer Collection charges shall be multiplied by twenty (20%) percent to establish the portion of the Sewer Collection budget allocable to the North Manheim Township Authority for purposes of determining Operating Costs.

OPERATING COSTS [SCHUYLKILL HAVEN SEWER BUDGET] - SCHEDULE 1.26

SEWER FUND CLASSIFICATION	SEWAGE DISPOSAL(C)
426.100 SALARIES & WAGES	
426.210 OFFICE SUPPLIES	
426.211 MEDICAL SUPPLIES	
426.222 TREATMENT CHEMICALS	
426.225 LAB SUPPLIES	
426.226 JANITOR SUPPLIES	
426.231 GAS, OIL & GREASE	
426.232 TANK PERMITS	
426.238 SPECIAL WORK CLOTHES	
426.247 SAFETY EQUIPMENT	
426.249 MISCELLANEOUS	
426.252 TIRES & TIRE REPAIR	
426.253 PARTS	
426.260 SMALL TOOLS & MINOR EQUIP.	
426.313 ENGINEERING SERVICES	
426.316 OUTSIDE LABORATORIES	
426.321 TELEPHONE	
426.327 RADIO MAINTENANCE	
426.331 TRAVEL & EDUCATION	
426.360 UTILITIES	
426.365 DISPOSAL OF PLANT WASTE	
426.373 MAINT. & REPAIRS "(B&G)	
426.375 EMERG. REPAIR "(FLOOD)	
426.376 MAINT MACH & EQUIP	

SEWER FUND CLASSIFICATION	SEWAGE DISPOSAL(C)
426.384 EQUIPMENT RENTAL	
426.420 DUES & PUBLICATIONS	
426.450 SLUDGE REMOVAL	
426.451 OUTSIDE VEH MAINT	
426.452 CONTRACTUAL SERVICES	
426.453 CONTRACTED CHEM. TESTING	
426.730 CAP IMPR TO FAC (B&G)	
426.740 MAJOR EQUIPMENT	
426.745 MAJOR EQUIP (TRUCK)	
SUBTOTAL	

SEWER FUND CLASSIFICATION	MISCELLANEOUS(D)
470.156 HOSP & HEALTH BENEFITS	
470.159 LIFE & DISABILITY INS.	
470.160 PENSION	
470.161 SOCIAL SECURITY	
470.162 UNEMPLOYMENT COMP.	
470.163 WORKMANS COMP.	
470.192 OTHER (MEALS, ETC.)	
SUBTOTAL	

SEWER FUND CLASSIFICATION	INSURANCES(E)
471.352 LIABILITY & PROPERTY	
471.355 AUTOMOBILE INSURANCE	
471.356 ERRORS & OMISSIONS[5]	
471.358 FLOOD INSURANCE	
SUBTOTAL	

[5] Errors and omissions insurance premiums shall be multiplied by twenty-five (25%) percent to establish the portion of errors and omissions insurance premium allocable to the North Manheim Township Authority.

SEWER FUND CLASSIFICATION	DEBT SERVICE(F)[6]
480.385 AUTHORITY RENTALS[6]	
SUBTOTAL	

[6] There will be no duplication of capital or other expenditures reflected elsewhere in this Schedule 1.26 to the extent that those capital or other expenditures are financing through borrowings, capital leases or similar incurrence of debt reflected in the amounts constituting Debt Service on this page. Furthermore, Debt Service shall be specifically limited to debt service associated with expenditures related to the Sewage Treatment Plant. The Debt Service existing as of the date of this Agreement is attached to this Schedule 1.26.

SEWER FUND CLASSIFICATION	RESERVE(G)
490.001 RESERVE FOR CAP IMPR[7]	
SUBTOTAL	

[7] The reserve for capital improvements will consist of only that amount needed to replenish the Reserve Account to $35,000.00 based on expenditures during the current Fiscal Year specifically related to the Sewage Treatment Plant. There shall be no duplication of amounts deducted from the Reserve Account and expenses reflected elsewhere in this Schedule 1.26.

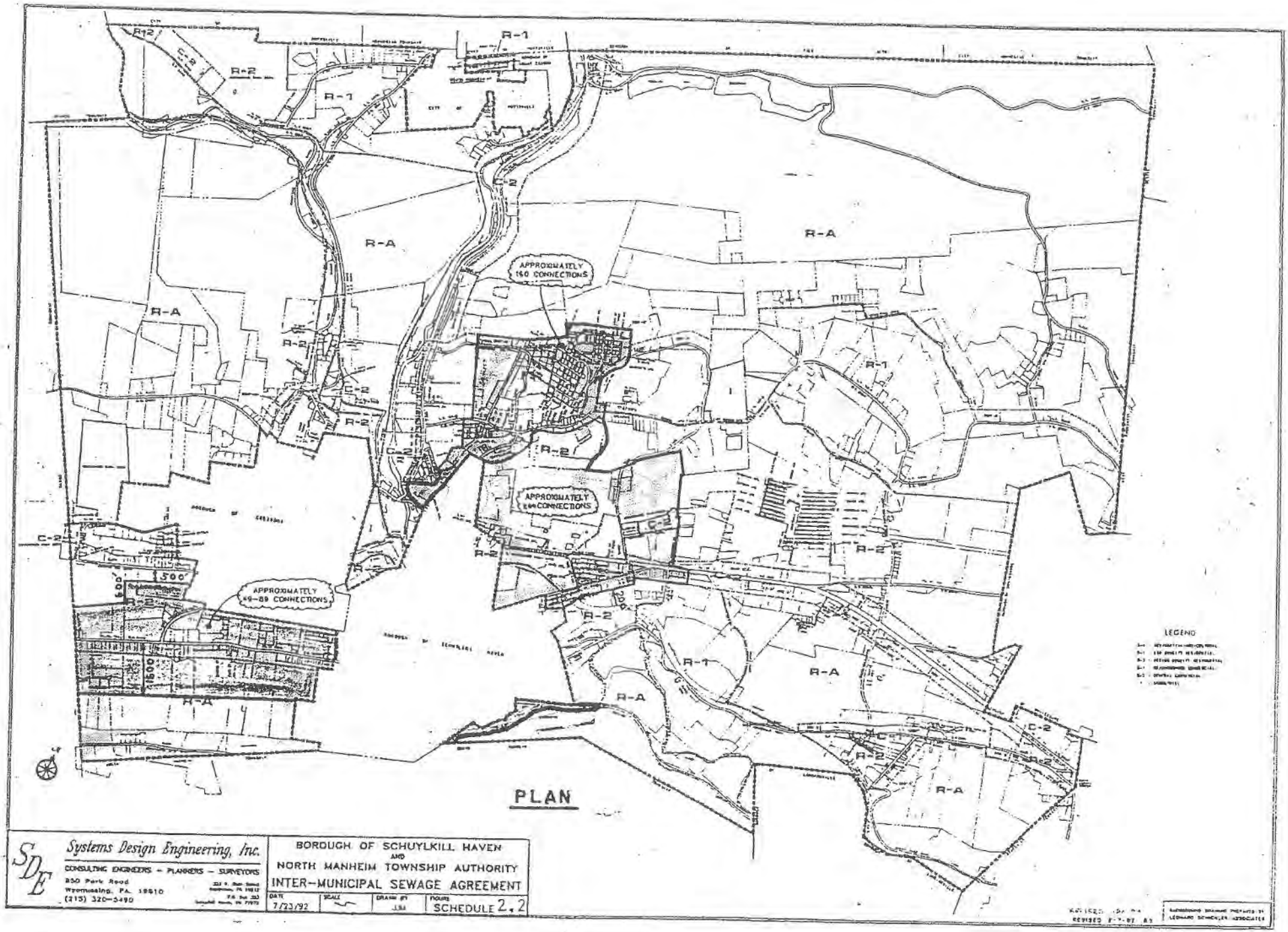
SCHEDULE 2.2
SEWAGE FLOWS

During the 1998 Fiscal Year, the Authority billed the customers of the Sewage System of the Authority, all of whom are identified on the list attached hereto and incorporated herein by reference, based on total sewage flows of 439,243,900 gallons.

The Sewage flows for Rate Type U customers were are based on water meter readings.

The Sewage flows for Rate Type F customers are based on EDUs with each EDU constituting 50,000 gallons annually. Each Rate Type F customer constitutes a single EDU, except the following:

Account Number	Customer name	No. of EDUs
202SH0060	M/M David S. Wise	2 EDUs
202SH0076	Keystone Park Properties	28 EDUs
202SH0077	Larry L. Luckenbill, Jr.	4 EDUs
202SH0080	Red & White Market	2 EDUs



PLAN

Systems Design Engineering, Inc.
CONSULTING ENGINEERS – PLANNERS – SURVEYORS
850 Park Road
Wyomissing, PA. 19610
(215) 320-5490

BOROUGH OF SCHUYLKILL HAVEN
AND
NORTH MANHEIM TOWNSHIP AUTHORITY
INTER-MUNICIPAL SEWAGE AGREEMENT

DATE	SCALE	DRAWN BY	FIGURE
7/23/92			SCHEDULE 2.2

REVISED 8-7-92 AS

Schuylkill Haven Second Amended and Restated Inter-Municipal Sewage Agreement, 07/01/2007

BOROUGH OF SCHUYLKILL HAVEN

SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

NORTH MANHEIM TOWNSHIP AUTHORITY

TOWNSHIP OF NORTH MANHEIM

SECOND AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT

July 1, 2007

SECOND AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT

THIS SECOND AMENDED AND RESTATED INTER-MUNICIPAL SEWAGE AGREEMENT (the "Agreement"), is made and effective July 1, 2007, by and between **BOROUGH OF SCHUYLKILL HAVEN**, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at Borough Hall, 12 West Main Street, Schuylkill Haven, Schuylkill County, Pennsylvania ("Borough"), **SCHUYLKILL HAVEN MUNICIPAL AUTHORITY**, a municipality authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at Borough Hall, 12 West Main Street, Schuylkill Haven, Schuylkill County, Pennsylvania ("Borough Authority"), **NORTH MANHEIM TOWNSHIP AUTHORITY**, a municipality authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at 950 East Main Street, Suite 101, Schuylkill Haven, Schuylkill County, Pennsylvania ("Township Authority"), and **TOWNSHIP OF NORTH MANHEIM**, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Township").

Background

The Borough currently leases from the Borough Authority and operates a system for collecting, conveying and treating sewage, which system has the capacity for conveying and treating sewage originating in North Manheim Township, Schuylkill County, Pennsylvania. By ordinance or ordinances of the North Manheim Township Board of Supervisors, the Township Authority will from time to time be vested with jurisdiction over the collection, conveyance and treatment of sewage originating in various specified areas located within the Township.

On August 18, 1992, the parties entered into an Inter-Municipal Sewage Agreement (the "1992 Agreement") for the purpose of establishing the terms and conditions under which the Borough conveys and treats certain sewage generated in the Township. On October 11, 1995, the parties entered into an Amendment No. 1 to Inter-Municipal Sewage Agreement ("Amendment No. 1") which amended the 1992 Agreement for the purpose of implementing and enforcing a pretreatment program to control Industrial Waste.

On or about July 13, 1999, the parties entered into an Amended and Restated Inter-Municipal Agreement ("1999 Agreement") for the purpose of incorporating the amendments set forth in Amendment No. 1, as well as further amendments to the 1992 Agreement to which the parties agreed.

The parties are entering into this Second Amended and Restated Inter-Municipal Agreement for the purpose of further revising and clarifying the relationship between the parties and certain terms of the 1999 Agreement, and to revise the method of calculation of the Borough Charge hereunder.

NOW, THEREFORE, in consideration of the mutual promises contained herein and with the intent to be legally bound, the parties agree that the Agreement is hereby amended and restated from and after July 1, 2007, to read in its entirety as follows:

1. **Definitions.** The following words and phrases when used in this Agreement shall have the meanings ascribed to them in this section unless the context clearly indicates a different meaning:

1.1 "Authorities Act" shall mean the Municipality Authorities Act, Act of June 19, 2001, P.L. 287, 53 Pa.C.S. §5601, et seq., as may be amended or supplemented from time to time.

1.2 "Township Authority" shall mean the North Manheim Township Authority, acting by and through its Board or, in appropriate cases, acting by or through its authorized representative(s).

1.3 "Board of Supervisors" shall mean the group of elected officials acting as the governing body of the Township.

1.4 "Borough" shall mean the Borough of Schuylkill Haven, Schuylkill County, Pennsylvania, acting by and through its Borough Council or, in appropriate cases, acting by and through its authorized representative(s). For purposes of this Agreement, the term "Borough" shall include "Borough Authority," defined below in Article 1.4.1.

1.4.1 "Borough Authority" shall mean the Schuylkill Haven Municipal Authority, acting by and through its Board or, in appropriate cases, acting by and through its authorized representative(s).

1.5 "Borough Charge" shall mean the amount due and payable to the Borough by the Township Authority for all services provided under this Agreement determined in accordance with Section 3 hereof.

1.6 "Commercial Establishment" shall mean any room, group of rooms, building or enclosure connected, directly or indirectly, to the Sewage System of the Township Authority and used or intended for use in the operation of a business enterprise for the sale and distribution of any product, commodity, article or service.

1.7 "Commonwealth" shall mean the Commonwealth of Pennsylvania.

1.8 "Connection Ordinance" shall mean Ordinance No. 60 enacted by the Township on July 20, 1993, inter alia, compelling all Owners of Improved Property whose principal building is accessible to the Sewage System of the Township Authority, to connect to such Sewage System of the Township Authority and use the same in such manner as the Township may ordain.

1.9 "DEP" shall mean the Department of Environmental Protection of the Commonwealth.

1.10 "Domestic Sewage" shall mean all Sewage other than Industrial Wastes.

1.11 "Dwelling Unit" shall mean any room, group of rooms, house trailer, apartment, condominium, cooperative or other enclosure connected, directly or indirectly to the Sewage System of the Township Authority and occupied or intended for occupancy as living quarters by an individual, a single family or other discrete group of persons, excluding institutional dormitories.

1.12 "Educational Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly, to the Sewage System of the Township Authority and used or intended for use, in whole or in part, for educational purposes, including both public and private schools.

1.13 "EDU" shall mean an Equivalent Dwelling Unit.

1.14 "EPA" shall mean the Environmental Protection Agency of the United States of America.

1.15 An "Equivalent Dwelling Unit", for purposes of computing the Borough Charge pursuant to Section 3.4 of this Agreement, shall be equivalent to an amount of wastewater discharged from an Improved Property not in excess of 50,000 gallons per year. For purposes of calculating tapping fees, "Equivalent Dwelling Unit" shall mean the amount of sewage generated by an Improved Property not in excess of the calculation of design capacity established by the Authorities Act, 53 Pa. C.S. § 5607(d)(24)(i)(C)(V)(e), as may be amended or supplemented. As of the date of this Agreement, an Equivalent Dwelling Unit for purposes of calculating tapping fees shall not exceed 212.4 gallons per day, based the U.S. Census Bureau calculation of an average of 2.36 persons per household in Schuylkill County, Pennsylvania.

1.16 "Fiscal Year" shall be from July 1 to June 30 of the following calendar year.

1.17 "Improved Property" shall mean any property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Domestic Sewage and/or Industrial Wastes shall be or may be discharged, which is located within the Sewered Area and subject to the Connection Ordinance.

1.18 "Indemnified Party" shall have the meaning ascribed thereto in Section 6.6 hereof.

1.19 "Industrial Establishment" shall mean any Improved Property connected, directly or indirectly, to the Sewage System of the Township Authority and used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property from which wastes, in addition to or other than Domestic Sewage, shall or may be discharged.

1.20 "Industrial Sewer Use Ordinance" shall mean Ordinance No. 73 enacted by the Township on October 28, 1997 relating to pretreatment and discharge of Sewage.

1.21 "Industrial Sewer Use Resolution" shall mean the Industrial Sewer Use Resolution [Schuylkill Haven] adopted by the Township Authority on October 14, 1997, effective October 28, 1997, relating to pretreatment and discharge of Sewage.

1.22 "Industrial Wastes" shall mean any and all Sewage and other liquid wastes discharged from an Industrial Establishment other than Domestic Sewage discharged from such Industrial Establishment.

1.23 "Institutional Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly to the Sewage System of the Township Authority, including institutional dormitories in Educational Establishments, which do not constitute a Commercial Establishment, a Dwelling Unit or an Industrial Establishment.

1.24 [Deleted]

1.25 "Owner" shall mean any Person vested with title, legal or equitable, sole or partial, of any Improved Property.

1.26 "Operating Costs" shall consist of the line items set forth on Schedule 1.26, attached hereto and incorporated herein by reference. Notwithstanding anything contained in this Agreement to the contrary, including without limitation Schedule 1.26, Operating Costs shall be strictly limited to costs and expenses specifically associated with the Sewage System of the Borough. Schedule 1.26 may, with the written consent of the Township Authority, be modified or updated from time to time by the Borough as necessary to reflect changes to operating costs and conditions. Such revisions to Schedule 1.26, upon the written approval by the Township Authority or upon the passage of 45 days without objection by the Township Authority after receipt of written notice from the Borough specifying the requested changes, shall be deemed Amendments to this Agreement notwithstanding the provisions of Section 7.14 hereof.

1.27 "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

1.28 "Sewage" shall mean the water-carried wastes from single and multi-family residences, business buildings, institutions and industrial establishments.

1.29 "Sewage System of the Borough" shall include all facilities owned by the Borough or the Borough Authority and used for collecting, conveying and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation the Sewage Treatment Plant.

1.30 "Sewage System of the Township Authority" shall include all facilities of the Township Authority now or hereafter located in the Township for the purpose of collecting and conveying Sewage to the Sewage System of the Borough.

1.31 "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by the Borough for treating and disposing of sewage, presently existing and all future improvements and additions thereto.

1.32 "Sewered Area" shall mean those areas of the Township served by the Sewage System of the Township Authority as determined and designated, from time to time, by the Township and the Township Authority.

1.33 "Township" shall mean North Manheim Township, Schuylkill County, Pennsylvania, a political subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through its authorized representatives.

1.34 [Deleted.]

1.35 "User Charge" shall mean the annual sewer rental or charge imposed by the Township Authority hereunder, as amended from time to time, against the Owner of each Improved Property, for the use of the Sewage System of the Township Authority.

1.36 Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Provision of Sewage Service

2.1 Agreement to Provide Service. The Borough agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide the Township Authority, as a single bulk customer, Sewage treatment and disposal services in the Sewage Treatment Plant as provided for herein. The Borough agrees to maintain the Sewage System of the Borough in good repair and order and efficient operating condition necessary to satisfy all laws, regulations and standards prescribed or enforced by DEP, EPA, and any other governmental authority having jurisdiction thereof. However, the Borough shall not be responsible for damage to the Township, Authority or its residents, caused by a malfunction of the Sewage System of the Borough, which could not reasonably have been avoided.

2.2 Grant of Right to Connect. The Borough, subject to all of the terms and conditions of this Agreement, herewith grants to the Township Authority the right to continue the connection of the Sewage System of the Township Authority to the Sewage System of the Borough for the purpose of discharge and disposal of Sewage. Any further expansion or extension of the Sewage System of the Township Authority, consisting of two (2) or more additional residential connections or any change in use of any Improved Property resulting in increased Sewage flows of two (2) or more additional residential EDUs shall be subject to the written approval of the Borough, which approval shall not be unreasonably withheld or delayed. Any further expansion or extension of the Sewage System of the Township Authority, consisting of one (1) or more additional non-residential connections or any change in use of any Improved Property resulting in increased Sewage flows of one (1) or more additional non-residential EDUs shall be subject to the written approval of the Borough, which approval shall not be unreasonably withheld or delayed. As an alternative to obtaining the written approval of the Borough as aforesaid, the Township/Authority shall have the option to negotiate a specified reservation of Sewage treatment capacity with the Borough. The Borough's approval of DEP sewage planning modules or exemptions or comparable forms or procedures established by DEP or its successor with respect to sewage planning shall satisfy any Borough written approval obligation hereunder.

The Township Authority shall provide to the Borough copies of all sewage permits issued by the Township Authority with respect to the Sewage System of the Township Authority. The Township Authority shall reimburse the Borough for its reasonable costs and expenses in reviewing said modules, exemptions or comparable forms or procedures.

2.3 Agreement to Convey. The Borough agrees to take all necessary steps to convey the Sewage passing through the Township Authority's connection or connections to Borough's Sewage Treatment Plant, whether said connections are made directly to the Sewage Treatment Plant or to the Borough's sewage collection system for conveyance to the Sewage Treatment Plant, and to treat and dispose of such sewage in a manner required by the EPA, DEP, or any successor regulatory bodies.

2.4 Prohibition of Storm and Ground Water and Certain Substances. All parties agree to take all reasonable efforts to insure that the Sewage passing through their respective Sewage Systems shall not contain infiltration from ground water, or inflow from storm water, roof or surface drainage. Further, all parties shall make all reasonable efforts to prohibit the entrance into their respective Sewage Systems of all prohibited industrial waste, chemicals, and other matter as defined in this Agreement. The Borough and the Township Authority shall be able to take samples and make analysis of such samples at anytime.

3. Borough Charge.

3.1 Commitment to Pay Borough Charge; Separating Billing for Industrial Surcharge. The Township Authority shall pay to the Borough the Borough Charge calculated in accordance with this Section and paid on a monthly basis. The Borough may assess surcharges for Industrial Wastes, but any such surcharge shall be billed directly by the Borough to the generator of such Industrial Wastes.

3.2 Annual Certification of EDU's. On or before April 1 of each year during the term of this Agreement, the Township Authority shall certify to the Borough the location and apparent use of each Improved Property in the Sewered Area served by the Sewage System of the Township Authority on such date. On each annual certificate, the Township Authority shall also include the number of EDU's by which each Improved Property shall be classified in accordance with Section A of Schedule 1.15. In the case of Improved Property from which water consumed or sewage discharged is metered by device reasonably acceptable to the Borough and the Township Authority, the Borough may elect, upon written notice to the Township Authority, to determine the number of EDU's by which any Improved Property shall be classified in accordance with Section B of Schedule 1.15.

3.3 Flow Meters. The Borough Authority has placed flow meters at the Cleveland Street and Naffin Avenue points of connection from the Sewage System of the Township Authority to the Sewage System of the Borough. Such meters measure and record the total wastewater flows entering the Sewage System of the Borough from the Sewage System of the Township. The Township Authority has inspected the flow meters and agrees that the flow meters shall be used for purposes of measuring and recording the total wastewater flows entering the Sewage System of the Borough from the Sewage System of the Township. The Borough will bear responsibility for maintaining the flow meters, and the cost of such maintenance shall be

borne equally by the Borough and the Township Authority. The Borough will bear responsibility for recording weekly and monthly wastewater flows recorded by the flow meters for use in calculating the Borough Charge in accordance with Section 3.4, below. If new points of connection from the Sewage System of the Township to the Sewage System of the Borough are established, a new flow meter shall be installed at such point of connection. In the event that any new flow meter is required to be installed, or any existing flow meter requires replacement, the Township Authority shall bear the cost of installing or replacing such flow meter(s).

3.3.1 In the event that points of connection are or have been established from municipalities, municipality authorities, or other bulk purchasers of wastewater treatment and disposal other than the Township Authority, then such points of connection will be equipped with flow meters to measure and record total wastewater flows from the new or additional connections for purposes of calculating the total wastewater flows attributable to the Sewage System of the Authority.

3.4 Borough Charge. The Borough Charge shall be the Township Authority's proportionate share of the total annual Operating Costs for the preceding Calendar Year of the Borough, less any deductions therefrom as provided below, divided by twelve (12). The Township Authority's proportionate share of the total annual Operating Costs shall be determined by calculating the total wastewater flows generated by the Township, divided by the total wastewater flows received at the Sewage Treatment Plant, during the twelve months preceding the establishment of the Borough Charge for the next fiscal year. The total wastewater flows generated by the Township will be determined based upon flow meters placed at the points of connection between the Sewage System of the Township Authority and the Sewage System of the Borough, including any connections directly from the Sewage System of the Township Authority to the Sewage Treatment Plant. For those portions of the Sewage System of the Township Authority where no sewage flow meter is in place, the amount of wastewater generated by the Township Authority in those areas shall be calculated by adding (a) for those Improved Properties in the unmetered area that have potable water meters, the total potable water consumed by the Improved Properties, and (b) for those Improved Properties in the unmetered area without potable water meters, the estimated water usage based on the total number of EDUs for such Improved Properties as determined in accordance with Section 1.15. Notwithstanding anything contained herein to the contrary, the Borough Charge shall be reduced by the amount of any state or federal subsidies the Borough receives for the operation of the Sewage Treatment Plant when calculating said rates. The Borough Charge for each Fiscal Year shall be determined by the Borough on or before June 1 of the preceding Fiscal Year, based upon the actual Operating Costs and Sewage Flows for the preceding calendar year.

3.5 [Deleted].

3.6 Records to be Maintained. The Borough shall keep appropriate audited records and accounts with respect to Operating Costs and wastewater flows so that determinations which shall be necessary can be made promptly, at the required times, with fairness and accuracy. Such records and accounts shall be open to inspection by the Township and the Township Authority, upon reasonable notice, at reasonable times. A copy of the certified audits of appropriate records and accounts of the Borough with respect to the Sewage System of the Borough shall be provided to the Township Authority on an annual basis contemporaneously with the filing of

such audit with the Commonwealth of Pennsylvania. Any additional cost in preparing this report shall become part of the total Operating Costs.

3.7 Payment of the Borough Charge by the Township Authority; Late Charges. The Township Authority shall pay the Borough Charge to the Borough monthly in arrears, on the last business day of each month. Any delinquent amounts of the Borough Charge shall be subject to interest at the rate of 1.5% per month, or such lesser amount as may be established by law regarding the assessment of such interest. In the event that the Borough imposes such interest on the Township Authority, the Township Authority further agrees to (i) impose a comparable penalty on the corresponding delinquent Township Authority customers and to apply future receipts from such delinquent customers first to satisfaction of such penalty (with corresponding remittance of any penalty owed to the Borough), and (ii) promptly, but not later than ninety (90) days from the date of the Borough's imposition of such penalty (or such longer period as may be required pursuant to a change in law or regulation subsequent to the date hereof), file a municipal lien against the applicable property of such delinquent customer.

3.8 Charges to Conform to Authorities Act. The Borough agrees that any other charges shall be in conformance with the Authorities Act.

3.9 Prohibition Against Subsidy. The cost of collection, conveyance and treatment of Sewage collected outside of the Borough shall not be subsidized by the Borough or its residents, and the cost of the collection, conveyance and treatment of Sewage collected from connections within the Borough shall not be subsidized by the Township, or its residents.

3.10 Renegotiation Based on Regulatory Charges. Whenever new rules, regulations or legislative acts promulgated or enacted by state or federal regulatory bodies, or the interpretation of the same by such state or federal regulatory bodies having jurisdiction, require the expenditure of additional funds concerning the operation of the Sewage Treatment Plant, which were not foreseen or contemplated upon the execution of this Agreement, or which materially impact performance by any party to this Agreement, then in such event, this Agreement may be renegotiated upon written notice from the Borough to the Township Authority, solely as to those provisions of this Agreement that are impacted by such new rules, regulations, acts or interpretations.

4. Borough Tapping Fees.

4.1 Tapping Fee Due from Authority Upon Connection. The Township Authority shall pay to the Borough a tapping fee determined in accordance with the Authorities Act for every new user of the Sewage System of the Township Authority, as well as for every changed use that results in an increase of wastewater generation by any existing property greater than one (1) EDU. The tapping fee shall be payable by the Township Authority to the Borough at the time of connection of the Improved Property to the Sewage System of the Township Authority.

4.2 Any tapping fees or any similar fee for purchase of sewage treatment capacity paid to the Borough by the Township Authority or any other user or customer of the Sewage System of the Borough shall be considered a "Capital Reserve" and shall not be included in the operating revenue of the Sewage System of the Borough. The Borough and/or Borough

Authority may reserve or expend such Capital Reserves for any capital improvement expense related to construction, improvement or expansion of sewage treatment or disposal facilities or to pay or advance fund payment of debt that is or was incurred by the Borough or Borough Authority for construction, improvement or expansion of sewage treatment or disposal facilities.

5. [Deleted].

6. **Treatment of Industrial Waste.**

6.1 Amendment to Borough Industrial Use Ordinance. Whenever the Borough amends its Industrial Sewer Use Ordinance, it will forward a copy of such amendments to the Township and Township Authority within ten (10) business days of enactment thereof. The Township and the Township Authority will enact amendments to the Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution at least as stringent as those adopted by the Borough within sixty (60) business days of receipt thereof.

6.2 Periodic Review of Industrial Use Ordinances. The parties will periodically review their respective Industrial Sewer Use Ordinances and Resolutions and jointly draft and adopt amendments (which are equivalent in scope and stringency) to their respective Industrial Sewer Use Ordinances when deemed necessary for the effective administration and operation of the pretreatment program. This review will be conducted no less than once every three (3) years. However, any party may request a joint review whenever such party believes that a review is necessary. A request for such joint review must be forwarded by the requesting party to all other parties stating the reason for the request and the date on which the review is requested to take place. Within thirty (30) days of receipt of the request, the receiving party must respond to the request, stating that the proposed date is satisfactory or proposing an alternate date(s) for the review. In any case, the joint review will take place within sixty (60) days of the request.

6.3 Cooperative Enforcement. The Township and the Township Authority will adopt and, subject to Section 6.4 hereof, diligently enforce local limits which address at least the same pollutant parameters and are at least as stringent as the local limits enacted by the Borough. Notwithstanding anything to the contrary contained herein, enforcement of the local limits shall be the responsibility of the Borough and Borough Authority. If any revisions or additions are made to the Borough or Borough Authority's local limits, the Borough and Borough Authority will forward to the Township and the Township Authority a copy of any such revisions or additions to the local limits within ten (10) business days of enactment thereof, together with an explanation of the reason for such revisions or additions. To the extent that the revisions or additions are consistent with applicable laws and regulations, the Township and the Township Authority agree to adopt any revisions or additions made to the Borough or the Borough Authority's local limits within sixty (60) business days.

6.4 Delegation of Enforcement to Borough. The Borough, on behalf of and as an agent for the Township and the Township Authority, will perform technical and administrative duties necessary to implement and enforce the Township and the Township Authority's Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution. The Borough and the Borough Authority will (1) update the industrial waste survey; (2) issue permits to all users required to obtain a permit and who submit a properly completed permit application in form acceptable to

the Borough Authority and who comply with all permit conditions and to deny permits to those who do not; (3) conduct inspections, sampling, and analysis; (4) take all appropriate enforcement action as outlined in the Borough and Borough Authority's enforcement response plan; (5) perform any other technical or administrative duties the parties to this Agreement, by their mutual written supplement to this Agreement, deem appropriate; and (6) assume responsibility for billing and collection of fees and charges to industrial users relating to the industrial sewer use program, provided nevertheless, that neither the Borough nor the Borough Authority shall have any obligation to assess or collect the basic User Charge from industrial users within the Township, which obligation shall continue to be that of the Township Authority. In addition, the Borough and Borough Authority may, as an agent of the Township and the Township Authority, take emergency action to stop or prevent any discharge which presents or may present an imminent danger to the health or welfare of humans, which reasonably appears to threaten the environment, or which threatens to cause interference, pass through, or sludge contamination.

6.5 Costs of Enforcement and Reviews; Mediation. The Borough and the Borough Authority will be responsible for all costs incurred in implementing and enforcing the Township's and the Township Authority's Industrial Sewer Use Ordinance and Industrial Sewer Use Resolution on behalf of the Township and the Township Authority, if and to the extent that the Borough or the Borough Authority shall request that the Township or the Township Authority incur those costs, or if the Borough or the Borough Authority shall cause the Township or the Township Authority to incur those costs by reason of the failure of the Borough or the Borough Authority to perform the duties delegated to the Borough and the Borough Authority.

The Borough and the Borough Authority shall reimburse the Township and the Township Authority, as the case may be, for all legal and engineering expense incurred by the Township or the Township Authority subsequent to October 11, 1995, with respect to any reviews, approvals or other official action which the Borough or the Borough Authority may request of the Township or the Township Authority with respect to the future performance or amendment of this Article 6, or the adoption or amendment of any ordinance or regulation adopted pursuant to this Article 6, if requested to do so by the Borough or the Borough Authority or required by the terms of this Article 6. Any such professional expense shall be reasonable, and in accordance with the ordinary and customary fees charged by the Municipal Engineer or Solicitor for work performed for the Township or the Township Authority, and in no event shall the fees exceed the rate or cost charged by the Engineer or Consultant to the municipalities when fees are not reimbursed or otherwise imposed on third parties. Nothing contained in this Section 6.5, however, shall be construed to limit or otherwise affect the rights of the Township and Authority and the obligations of the Borough and the Borough Authority under Section 6.6 hereof. Requests for reimbursement shall be submitted by requisition in the form of Schedule 6.5, attached hereto and incorporated herein by reference, together with copies of the invoices for which reimbursement is requested, which invoices shall describe the services performed and time expended in performing those services, in commercially reasonable detail.

In the event that the Borough or Borough Authority disputes the amount of any fee for which reimbursement is required, the Borough or the Borough Authority shall reimburse the undisputed portion of the fees and shall notify the Township or the Township Authority within thirty (30) days of the date of billing. If within forty-five (45) days from the date of

billing the parties to the dispute cannot agree, the amount which is reasonable and necessary, the parties agree to submit the dispute to mediation before a single mediator.

6.6 Indemnity. The Borough and the Borough Authority unconditionally agree to indemnify, defend, and hold harmless the Township and the Township Authority, its officers, members, supervisors, employees, and agents, any successor to Township's or the Township Authority's interest in and to the Sewage System of the Township Authority and such successor's officers, members, supervisors, employees, and agents (each an "Indemnified Party") from against all claims, losses, costs, expenses, damages, obligations, and liabilities of any nature whatsoever (including, without limitation, litigation costs and attorneys fees and expenses) made against, or suffered or incurred by, any Indemnified Party as a result of any claim, action, suit, or proceeding brought or threatened by any person by reason of the failure of the Borough or the Borough Authority to perform the duties delegated to the Borough and the Borough Authority with respect to this Article 6, including without limitation any such claims, actions, suits or proceedings based on the matters set forth in Section 6.5 hereof, but excluding any such claim, action, suit or proceeding resulting from a breach of this Agreement or any regulatory requirement by the Township or Township Authority.

6.7 Disclaimer of Responsibility for Debt. The execution and delivery of this Agreement by the Township and the Township Authority shall not create or impose liability on the Township and/or Township Authority for (1) any indebtedness incurred by the Borough and/or the Borough Authority relating to the subject matter of this Article 6 or otherwise, (2) any deficiency or other judgment entered in relation to such indebtedness, (3) any fees or charges imposed by the Borough and/or the Borough Authority, with or without the cooperation of the Township or the Township Authority, on Township users to offset such indebtedness or otherwise related to the subject matter of this Agreement, or (4) any fines, penalties, assessments or charges imposed by EPA or DEP in relation to the subject matter of this Agreement, unless caused by the breach by the Township or Township Authority of this Agreement, or of any regulation or requirement imposed on the Township or the Township Authority with which the Township or the Township Authority does not comply, unless compliance therewith, on behalf of the Township and Township Authority by the Borough and Borough Authority, is required by the terms of this Agreement.

6.8 Notification of Claims. In every instance where the Township or Township Authority shall have notice that any claim or demand whatsoever exists or has been asserted or is threatened, which would constitute a claim or demand hereunder to be indemnified by the Borough and the Borough Authority, the Township or Township Authority, as the case may be, shall promptly notify the Borough and the Borough Authority of the claim or demand. The Borough and the Borough Authority reserve the right to contest through their counsel and at their own expense such claims or demands including the right to appeal to the court with the highest appellate jurisdiction. If the Borough and the Borough Authority shall fail to contest and resist any such claim or demand within a reasonable time after receiving notice thereof (but not later than seven (7) days after such notice), the Township or Township Authority, as the case may be, shall have the right to satisfy and discharge the same by suit, settlement, or otherwise. The amount of any such claim or demand determined to be due by way of suit, settlement or otherwise shall immediately become due and payable by the Borough and the Borough Authority to the Township or Township Authority, as the case may be, upon demand.

6.9 Extra-Territorial Industrial Users. Before an industrial user located outside the jurisdictional boundaries of the Township discharges into the Sewage System of the Township Authority, the parties hereto will enter into an agreement with the jurisdiction in which such industrial user is located. Such agreement shall be substantially equivalent to this Article 6 and must be fully secured prior to a discharge from any user in the outside jurisdiction.

6.10 Arbitration of Section 6 Issues. Notwithstanding anything contained elsewhere in this Agreement to the contrary, any disputes arising out of the subject matter of this Article 6 will be submitted to binding arbitration performed in accordance with the rules of the American Arbitration Association, before a panel of three arbitrators, at least one of whom shall be an attorney. A decision reached in arbitration will in no way limit the Borough's or the Borough Authority's power to enforce requirements directly against users located in the Township, nor will it preclude the Borough or the Borough Authority from seeking other remedies against the Township or the Township Authority including, but not limited to, specific performance.

6.11 Compliance with Federal Clean Water Act. The subject matter of this Article 6 shall be reviewed and revised to insure compliance with the Federal Clean Water Act (42 U.S.C. § 1251 et seq.) and rules and regulations (see 40 C.F.R. Part 403) issued thereunder, as necessary.

6.12 Survival of Covenants All covenants and agreements made in Sections 6.5. 6.6, 6.7 and 6.8 hereof shall survive any termination of this Agreement.

7. Miscellaneous.

7.1 Insurance. The Borough will insure, or cause to be insured, the Sewage Treatment Plant with a responsible company or companies authorized and qualified to do business under laws of the Commonwealth of Pennsylvania, against loss or damage by fire and such other risks (including public liability) and casualties and in such amounts as are usually carried on like properties in the Commonwealth and shall be reviewed and approved, at least annually, by the Borough's consulting engineers or other insurance advisor. Such insurance policies shall be non-assessable. Immediately upon the occurrence of any loss or damage to any part of the Sewage Treatment Plant which is covered by insurance, the Borough will commence and promptly complete, or cause to be so commenced and promptly completed, the repairing, replacement or reconstruction of the damaged or destroyed property according to plans and specifications prepared by the Borough's consulting engineers and shall collect and apply, or cause to be applied, the proceeds of such insurance to the cost of such repair, replacement or reconstruction.

7.2 Access to Information. Each party shall provide the other, from time to time, all information relevant to the proper administration of their responsibilities under this Agreement, or in respect to the interpretation hereof, as, and in such form and detail as, may be reasonably requested and each shall, at all reasonable times and from time to time, permit their representatives to examine and inspect their respective records and physical facilities relevant to the subject matter of this Agreement.

7.3 Non-Exclusivity. This Agreement is non-exclusive in nature and the Township Authority may enter into agreements with other Persons to collect, transport and/or treat all or any portion of the Sewage originating in the Township or perform such services for its own account. This is an Authority requirements contract only and nothing contained in this Agreement is explicitly or impliedly intended to create any obligation on the Township Authority to provide all or any portion of the Sewage originating in the Township to the Borough for transportation or treatment.

7.4 Force Majeure. Notwithstanding any other provision of this Agreement, no party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of God or riot, sabotage, public calamity, flood, strike, breakdown of the Sewage System of either party hereto, or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

7.5 Indemnification for Negligence. Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Agreement due to the negligence of such party or its agents or employees.

7.6 Severability. Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected; and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein.

7.7 Headings. The headings in this Agreement are solely for convenience and shall have no effect in the legal interpretation of any provision hereof.

7.8 Term. This Agreement shall become effective as of the date hereof and shall continue in full force and effect for a term of thirty (30) years.

7.9 Waiver of Strict Performance. The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

7.10 Continued Payment of Borough Charge. In the event that a civil action or suit is initiated based on the amount of the Borough Charge, the Township Authority shall continue to pay the Borough Charge during the pendency of said action or suit at the rate in effect prior to commencement of said action or suit, subject ultimately to adjustment based on the disposition of said action or suit, and shall pay the difference between the Borough Charge and the proposed charge into an interest bearing escrow account.

7.11 Counterpart Execution. This Agreement may be executed in any number of counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

7.12 Limitation on Assignment. The Borough shall not voluntarily assign this Agreement without the consent of the Township Authority, except that the Borough may assign its rights hereunder to (i) a municipal authority of which the Borough is an incorporator, or (ii)

an entity having obtained approval of such assignment by the Pennsylvania Public Utility Commission, or any successor thereto. The Township Authority shall not voluntarily assign this Agreement without the consent of the Borough, except that the Township Authority may assign its rights hereunder to (i) the Township, (ii) a municipal authority of which the Township is an incorporator or which is a successor to the Township Authority by merger or consolidation, or (iii) an entity having obtained approval of such assignment by the Pennsylvania Public Utility Commission, or any successor thereto. Subject to the foregoing, this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

7.13 Prior Agreement. This Agreement supersedes and repeals any prior agreement, contracts, and understanding, written or oral, by and among the parties hereto with respect to the subject matter contained herein. This Agreement contains the entire agreement among the parties hereto, and no oral statements or representations or prior written matter not contained in this instrument shall have any force and effect.

7.14 Amendments. This Agreement may not be modified or amended except in a writing signed by the parties hereto.

7.15 Choice of Law. This Agreement shall be construed according to, be subject to and be governed by the laws of the Commonwealth.

7.16 Recordings. This Agreement may be recorded by either party hereto.

7.17 [Deleted.]

7.18 Termination on Default. In consideration of the within terms and conditions, the parties hereto agree that if either party fails to observe and perform any of the covenants, conditions or agreements enumerated herein, the non-defaulting party may, upon sixty (60) days prior written notice, declare this Agreement to be broken and may withdraw therefrom retaining, however, all legal rights to institute action, either in law or in equity, for damages caused thereby; provided that if the defaulting party shall in the reasonable discretion of the non-defaulting party then be diligently pursuing a remedy for such condition within such sixty (60) day period, and is not otherwise in default, the defaulting party shall have such additional time as the non-defaulting party in its discretion reasonably exercised may grant to cure such condition and this Agreement shall then remain in full force and effect.

7.19 Remedies. Upon the occurrence of a default or breach of this Agreement, which is not corrected within the time provided in Section 7.18 hereof, the non-defaulting party may pursue any remedy at law or in equity for such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers and their respective seals to be hereunto affixed.

BOROUGH OF SCHUYLKILL HAVEN

ATTEST:

By: Kurt Mentz
Title: Council President

(Corporate Seal)

SCHUYLKILL HAVEN MUNICIPAL AUTHORITY

ATTEST:

By: Martin W. Berger Jr.
Title: Authority Board Member

(Corporate Seal)

NORTH MANHEIM TOWNSHIP AUTHORITY

ATTEST:

By: ALBERT T. BORNES
Title: CHAIRMAN

(Corporate Seal) SECRETARY

TOWNSHIP OF NORTH MANHEIM

ATTEST:

By: HARRY W. ECKERT
Title: CHAIRMAN

(Corporate Seal)

SCHEDULE 1.15
METHODS OF DETERMINING EQUIVALENT DWELLING UNITS

A. Based on Description of Property

Description of Improved Property	Unit of Measurement	Number of EDU's Per Unit of Measurement
Residential Dwelling Unit (year-round or seasonal)	Each Dwelling Unit	1
Retail store, professional offices	1 to 10 employees	1
Or other commercial enterprise	Each Additional 10 employees or fraction thereof	1
Hotel, motel or boarding house	1 to 4 rental rooms	1
(not including restaurant facilities)	Each additional 4 rooms or fraction thereof	1
Restaurant, club, tavern or other	1 to 10 customer seats	1
Retail food or drink establishment	Each additional 10 seats or fraction thereof	1
Automobile service station or	1 or 2 bays	1
Commercial vehicle repair shop	Each additional 2 bays or fraction thereof	1
Beauty parlor or barber shop	First Chair	2
(attached to or part of a Dwelling Unit)	Each additional chair	1
School	Per each 20 pupils, faculty administrators and staff	1
Church	Each	1
Fire Company	Each	1
Community Hall	Each	1
Funeral Home	Each	1
Industrial/Manufacturing establishment	1 to 10 employees	1
	Each additional 10 employees or fraction thereof	

Equivalent Dwelling Units applicable to businesses, retail stores and professional offices may be determined on the basis of the average number of full and part time employees (including individual owners and employers) during the calendar quarter preceding the date the owner of such improved property is required to connect to the Sewage System in accordance with the Connection Ordinance of the Township.

B. Metered Rate Basis

Equivalent Dwelling Units for any Improved Property may be determined on a metered rate basis calculated according, to:

(1) Metered volume of potable water usage by the Improved Property, adjusted, if appropriate, or

(2) Actual metered volume of wastewater discharged by the Improved Property into the Sewage System.

In either of the foregoing cases, such Equivalent Dwelling Units shall be computed in accordance with the guidelines set forth in Section 1.15 of the Second Amended and Restated Inter-Municipal Sewage Agreement.

C. Estimated Rate Basis.

Equivalent Dwelling Units may be based upon the Township Authority's estimate of potable water consumed by any Improved Property per annum.

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Summary Schedule 1.26

Line Item		Total Annual Operating Costs		
(1.0)		(A) Administration 400.xxx		$ -
(2.0)	(a)	(B) Sewer Collection System 436.xxx (1)	$ -	
(2.0)	(b)	20.0% (B) Sewer Collection System 436.xxx (1)		-
		(Line (2.0) (a) x 20%)		
(3.0)		(C) Sewage Disposal 429.xxx		-
(4.0)		(D) Miscellaneous 48y.xxx		-
(5.0)		(E) Insurances 486.xxx		-
(6.0)		(F) Debt Service		-
(7.0)		(G) Reserve		-
(8.0)		Annual Operating Costs (AOC) Attributable to NMTA		$ -
		(Total of Lines (1.0), (2.0) (b), (3.0), (4.0), (5.0), (6.0) and (7.0))		
		Revenue Offset		
(9.0)		Current Year Revenue Items per Paragraph 3.4		-
(10.0)		Net Operating Costs (NOC) Attributable to NMTA		$ -
		(Line (8.0) less line (9.0))		
(11.0)		NMTA Percent Waste Water Flow as Percent of Total (2)		0.0%
(12.0)		NOC Chargeable to NMTA		$ -
		(Line (10.0) x Line (11.0))		
		Additional Direct Costs for NMTA		
(13.0)		Meters - NMTA Connection 08-436.749		-
(14.0)		Meter Reading Wages 08-436.101	-	
(15.0)		Outside Meter Testing & Maint 08-436.328	-	
(16.0)		50.0% Lines (14.0) and (15.0)		-
(17.0)		Annual Borough Charge to North Mannheim Township		$ -
		(Total Line (12.0) (13.0) and Line (17.0))		
(18.0)		Monthly Borough Charge to North Mannheim Township		-

(1) Sewer Collection Costs are twenty percent allocable to North Manheim Township.

(2) Metered inflows at NMTA connections at Cleveland Street, Naffin Avenue plus non-metered EDU's per schedule Non Metered Connection Schedule 1.26 connecting to Schuylkill Haven's Sewer Collection System divided by effluent flows at Schuylkill Haven's Waste Water Treatment Plant.

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

	Account Classifications	(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
(A) Administration 08-400.xxx					
08-400.100	Salaries & Wages	-	50%	-	Salaries and wages are fifty percent allocable to the North Manheim Township Authority ("NMTA").
08-400.101	Meter Reading Wages	-	0%	-	Meter Reading Wages applies only to the Borough of Schuylkill Haven ("BOSH") and are entirely excluded in allocating expenses to NMTA.
08-400.106	Flood Wages	-	100%	-	
08-400.120	FICA Expense	-	100%	-	
08-400.121	Medicare Expense	-	100%	-	
08-400.162	State Unemplyment Expense	-	100%	-	
08-400.163	Worker's Comp Expense	-	100%	-	
08-400.210	Office Supplies	-	100%	-	
08-400.231	Gas, Oil & Grease	-	100%	-	
08-400.239	Flood Damages	-	100%	-	
08-400.252	Tire & Tire Repair	-	100%	-	
08-400.253	Parts	-	100%	-	
08-400.309	Trustee Fees Bonds	-	100%	-	
08-400.310	Bank charges	-	100%	-	
08-400.311	Audit	-	100%	-	
08-400.313	Engineering	-	100%	-	
08-400.314	Legal Services (Solicitor)	-	100%	-	
08-400.315	Legal Services (Authority)	-	100%	-	
08-400.321	Telephone	-	100%	-	
08-400.331	Training & Education	-	100%	-	
08-400.340	Adv. Printing	-	100%	-	
08-400.373	Maintenance & Repair	-	100%	-	
08-400.383	Rentals	-	100%	-	
08-400.387	Sewer Rental Payments	-	0%	-	Sewer Rental Payments are payments to the Borough of Cressona for BOSH residents serviced by the Cressona Borough sewage treatment plant. This expense is entirely excluded in allocating expenses to NMTA.
08-400.420	Dues & Publications	-	100%	-	
08-400.448	Contract Util/Programs	-	100%	-	
08-400.450	Outside Contractor Work	-	100%	-	
08-400.451	Outside Veh. Maint	-	100%	-	
08-400.510	Commendations	-	100%	-	
08-400.540	Franchise Fee to General Fund	-	0%	-	The Franchise Fee applies only to the BOSH and is entirely excluded in allocating expenses to NMTA.
08-400.740	Major Equipment	-	100%	-	
08-400.742	Major Equip (Inc Computer Hardware)	-	100%	-	
08-400.745	Bad Debt Expense	-	100%	-	
08-400-312	Trustee Fees Bonds	-	100%	-	
(A) Sub Total Administration		-		-	

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

	Account Classifications	(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
(B) Sewer Collection System 08-436.xxx					
08-436.100	Salaries & Wages	-	100%	-	
08-436.101	Meter Reading Wages	-	0%	-	Added Back in Summary Schedule 1.26. This expense is for reading meters at the points of connection between NMTA and BOSH and is a direct cost for NMTA.
08-436.120	FICA Expense	-	100%	-	
08-436.121	Medicare Expense	-	100%	-	
08-436.162	State Unemplyment Expense	-	100%	-	
08-436.163	Worker's Comp Expense	-	100%	-	
08-436.210	Office Supplies	-	100%	-	
08-436.222	Chemicals	-	100%	-	
08-436.227	Prop Restitution Supplies	-	100%	-	
08-436.228	Manhole Boxes/Asses	-	100%	-	
08-436.229	Pipe & Pipe Fittings	-	100%	-	
08-436.230	Concrete & Asphalt	-	100%	-	
08-436.231	Gas, Oil & Grease	-	100%	-	
08-436.238	Special Work Clothes	-	100%	-	
08-436.239	Miscellaneous	-	100%	-	
08-436.245	Sand/Cinders/Gravel	-	100%	-	
08-436.246	Safety Equipment	-	100%	-	
08-436.252	Tire & Tire Repair	-	100%	-	
08-436.253	Parts	-	100%	-	
08-436.256	Lumber	-	100%	-	
08-436.260	Small Tools & MinorEquip	-	100%	-	
08-436.313	Engineering Services	-	100%	-	
08-436.317	Surveying Services	-	100%	-	
08-436.318	Contr Emerg line Cleaning	-	100%	-	
08-436.321	Telephone	-	100%	-	
08-436.327	Radio Maintenance	-	100%	-	
08-436.328	Outside Meter Testing & Maint	-	0%	-	Added Back in Summary Schedule 1.26. This expense is for testing and maintaining meters at the points of connection between NMTA and BOSH and is a direct cost for NMTA.
08-436.329	Contr Emerg line Clean	-	100%	-	
08-436.331	Training/Trave/Education	-	100%	-	
08-436.360	Utilities	-	100%	-	
08-436.383	Equipment Rental	-	100%	-	
08-436.450	Outside Contractor Work	-	100%	-	
08-436.451	Outside Veh Maint	-	100%	-	
08-436.740	Major Equipment	-	100%	-	
08-436.747	Meters	-	0%	-	Meters apply only to the BOSH and is entirely excluded in allocating expenses to NMTA.
08-436.749	Meters - NMTA Connection	-	0%	-	Added Back in Summary Schedule 1.26. This expense is for new meters installed at the points of connection between NMTA and BOSH and is a direct cost for NMTA.
(B) Sub Total Sewer Collection		-		-	

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

Account Classifications		(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
(C) Sewage Disposal 429.xxx					
08-429.100	Salaries & Wages	-	100%	-	
08-429.120	FICA Expense	-	100%	-	
08-429.121	Medicare Expense	-	100%	-	
08-429.162	State Unemplyment Expense	-	100%	-	
08-429.163	Worker's Comp Expense	-	100%	-	
08-429.210	Office Supplies	-	100%	-	
08-429.211	Medical Supplies	-	100%	-	
08-429.222	Chemicals	-	100%	-	
08-429.225	Lab Supplies	-	100%	-	
08-429.226	Janitor Supplies	-	100%	-	
08-429.231	Gas, Oil & Grease	-	100%	-	
08-429.232	Tank Permits	-	100%	-	
08-429.238	Special Work Clothes	-	100%	-	
08-429.239	Flood Damages	-	100%	-	
08-429.246	Safety Equipment	-	100%	-	
08-429.252	Tire & Tire Repair	-	100%	-	
08-429.253	Parts	-	100%	-	
08-429.260	Small Tools & Minor Equip	-	100%	-	
08-429.312	Mngt Consult/Contracr Serv	-	100%	-	
08-429.313	Engineering Services	-	100%	-	
08-429.321	Telephone	-	100%	-	
08-429.322	Outside Lab work	-	100%	-	
08-429.327	Radio Maintenance	-	100%	-	
08-429.331	Training/Travel/Education	-	100%	-	
08-429.360	Utilities	-	100%	-	
08-429.365	Disposal (Refuse/Plant Waste)	-	100%	-	
08-429.373	Maint & Repair (Bldg)	-	100%	-	
08-429.374	Maint (Mach & Equip)	-	100%	-	
08-429.375	Emerg Repair (Flood)	-	100%	-	
08-429.376	Maint. Mach & equip	-	100%	-	
08-429.383	Equipment Rental	-	100%	-	
08-429.420	Dues and Publications	-	100%	-	
08-429.449	Sludge Removal	-	100%	-	
08-429.450	Outside Contractor Work	-	100%	-	
08-429.451	Outside Veh. Maint	-	100%	-	
08-429.453	Contracted Chemical Testing	-	100%	-	
08-429.730	Capital Improvements	-	100%	-	
08-429.740	Major Equipment	-	100%	-	
08-429.740	Major Equipment (Autos)	-	100%	-	
(C) Sub Total Sewer Disposal		-		-	

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

Account Classifications		(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
(D) Miscellaneous 48y.xxx					
08-481.161	Social Security	-	100%	-	
08-484.163	Workmans Comp	-	100%	-	
08-485.162	Unemployment Comp	-	100%	-	
08-487.156	Hosp & Health Benef	-	100%	-	
08-487.159	Life & Disability In	-	100%	-	
08-487.160	Pension	-	100%	-	
08-487.165	Sick Pay Expenses	-	100%	-	
08-489.192	Other (drug tests)	-	100%	-	
(D) Sub Total Miscellaneous		-		-	
(E) Insurances 486.xxx					
08-486.352	Liability & Property	-	100%	-	
08-486.355	Automobile Insurance	-	100%	-	
08-486.356	Errors and Ommission	-	50%	-	Errors and omissions are fifty percent allocable to NMTA.
08-486.358	Flood Insurance	-	100%	-	
(E) Sub Total Insurances		-		-	
(F) Debt Service 47y.xxx, 269.xxx					
08-472.970	Interest 2000 Loan	-	100.0%	-	There is no duplication of capital or other expenditures reflected
08-472-9xx	(Other Interest Accounts as Debt Issued)	-	100.0%	-	elsewhere in this Schedule 1.26 to the extent that those capital
01-472-940	Interest 2003 Series	-	97.6%	-	or other expenditures are financing through borrowings, capital
	(Recognized on General Fund)				leases or similar incurrence of debt reflected in the amounts
01-472.9xx	(Other Interest Accounts as Debt Issued)				constituting Debt Service on this page.
08-269.000	Principal 2000 Series	-	100.0%	-	Furthermore, Debt Service shall be specifically limited to debt
08-269.xxx	(Other Principal Accounts as Debt Issued)				service associated with expenditures related to the Sewage
01-471.930	Principal 2003 Series	-	97.6%	-	Treatment Plant. The Debt Service as of the date of this
	(Recognized on General Fund)				Agreement is attached to this Schedule 1.26.
01-471.9xx	(Other Principal Accounts as Debt Issued)				
08-473.000	Bond Amortization	-	100.0%	-	
(F) Sub Total Debt Service		-		-	

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

Account Classifications	(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
(G) Reserve				
08-107.400 Reserves for Capital Improvement				
Beginning Balance				
Uses				
Replenishments	-	100%	-	$50,000 Maximum, 2007 Dollars
Ending Balance				

The reserve for capital improvements will consist of only that amount needed to replenish the Reserve Amount based on expenditures during the current Fiscal Year specifically related to the Sewage Treatment Plant.

There shall be no duplication of amounts deducted from the Reserve Account and expenses reflected elsewhere in this Schedule 1.26. For Fiscal Year 2007-08, the maximum Reserve Amount shall be $50,000.

The Reserve Amount shall increase annually at a rate equal to the Producer Price Index for Utilities, Series I.D. PCU 221---221---, base date December 2003,

published by the U.S. Department of Labor, Bureau of Labor Statistics, and reported in September of each year.

(H) Depreciation				
08-499.099 Sewer Fund Depreciation	-	0%	-	

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

Account Classifications	(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
Not Included in NMTA Rate Calculation				
(I) Industrial Waste Program 424.xxx				
08-428.100 Salaries & Wages	-	0%	-	
08-428.120 FICA Expense	-	0%	-	
08-428.121 Medicare Expense	-	0%	-	
08-428.162 State Unemplyment Expense	-	0%	-	
08-428.163 Worker's Comp Expense	-	0%	-	
08-428.210 Office Supplies	-	0%	-	
08-428.222 Chemicals	-	0%	-	
08-428.225 Lab Supplies	-	0%	-	
08-428.231 Gas, Oil & Grease	-	0%	-	
08-428.232 Tank Permits	-	0%	-	
08-428.239 Flood Damages	-	0%	-	
08-428.246 Safety Equipment	-	0%	-	
08-428.252 Tire & Tire Repair	-	0%	-	
08-428.253 Parts	-	0%	-	
08-428.260 Small Tools & Supplies	-	0%	-	
08-428.313 Engineering Services	-	0%	-	
08-428.321 Telephone	-	0%	-	
08-428.322 Outside Lab Work	-	0%	-	
08-428.331 Travel Training & Education	-	0%	-	
08-428.360 Utilities	-	0%	-	
08-428.365 Disposal (Refuse/Plant Waste)	-	0%	-	
08-428.373 Maint & Repair (Bldg)	-	0%	-	
08-428.374 Maint (Mach & Equip)	-	0%	-	
08-428.383 Equipment Rentals	-	0%	-	
08-428.410 Judgements & Damages	-	0%	-	
08-428.450 Outside Contract Work	-	0%	-	
08-428.660 Capital Engineering	-	0%	-	
08-428.730 Capital Improvements	-	0%	-	
(I) Sub Total Industrial Waste	-		-	
Grand Total	-			

Schuylkill Haven Municipal Authority
Borough of Schuylkill Haven, PA
Calculation of Borough Charge For North Mannheim Township
For the Period July 1, _____ through June 30, _____
Detail Schedule 1.26

	Account Classifications	(a) 2xxx Auditor's Ending Balance	(b) Percentage Attributable to NMTA	(a) x (b) 2xxx Audited Schedule 1.26	Comments
	Less: Debt Service not Classified as Expenses				There is no duplication of capital or other expenditures reflected
	on Audited Financial Statements				elsewhere in this Schedule 1.26 to the extent that those capital
	Principal Payments on Debt Service				or other expenditures are financing through borrowings, capital
01-471.930	2003 Series A	-			leases or similar incurrence of debt reflected in the amounts
08-269.000	2000 Series A/B	-			constituting Debt Service on this page.
	(Other Debt Service Payments that may be	-			Furthermore, Debt Service shall be specifically limited to debt
	in the future)				service associated with expenditures related to the Sewage
	Interest on General Fund				Treatment Plant. The Debt Service as of the date of this
01-472-940	Interest 2003 Series	-			Agreement is attahed to this Schedule 1.26.
08-107.400	Reserves for Cap Impr				
	Add: Expenses on Audited Financial Statements not				
	Considered Expenses per Section 1.26				
08-492.001	Transfers to General Fund	-			
08-492.xxx	Transfers to xxx Fund	-			
	Total Expenses per Statement of Revenues				
	and Expenses and Changes in Net Assets	-			Reconciles to Audited Financial Statements
	Revenue				
	Investment Earnings	-			
	Unrealized Gain/(Loss)	-			
	NMSA/DEBT Service	-			
	Sewer Service	-			
	Penalties	-			
	Permits	-			
	Industrial Surcharge	-			
	Industrial Tapping Fee	-			
	NMSA Sewer Commission	-			
	Sewer Rents Refunds	-			
	Sale of Surplus	-			
	Insurance and Claim Proceeds	-			
	Miscellaneous Revenue	-			
	Miscellaneous Non-Revenue Receipts	-			
	Federal & State Grants	-			
	Transfer from General Fund	-			
	Transfer from Electric Fund	-			
	Refund from Prior Year	-			
	Total Revenue	-			Reconciles to Audited Financial Statements
	Revenues Over/(Under) Expenses	-			Reconciles to Audited Financial Statements

Borough of Schuylkill Haven
Schuylkill Haven, PA
Debt Service Attributable to Treatment Facilities
Debt Service Schedule 1.26
July 1, 2007

Description	Original Principal Amount	Principal at July 1, 2007	Percent Attributable to Sewage Treatment Facilities
Schuylkill Haven Municipal Authority	$ 2,170,000	$ 1,000,000	100.0%
$2,170,000 Gurarantted Sewer Revenue Note			
Series of 2000			
Borough of Schuylkill Haven	$ 1,410,000	$ 1,120,000	97.6%
$6,220,000 Combined Agregate Principal Amount			
General Obligation Bonds, Series A & B of 2003			
$2,430,000 General Obligation Bonds, Series of 2003			
Sewer Portion of Series A of 2003			

BOROUGH OF PENNSYLVANIA
Schuylkill Haven
SETTLED IN 1750 AS FINCHER'S FORD @schuylkillhaven.org
12 WEST MAIN STREET 17972-1900 (570) 385-2841 (570) 385-1784 FAX

MEMORANDUM

To: File May 29, 2007

From: Jim New

Subject: Debt Schedule for NMTA Inter-Municipal Agreement

Attached are three pages of amortization schedules that document debt attributable to NMTA as of this date.

1. 2000 Sewer Revenue Note (Principal Issue Amount $2,170,000).
   This note's interest cost is pegged to the London Inter-Bank Offered Rate (LIBOR)
2. 2003 Series A General Obligation Bonds (GOB) (Principal Amount $2,430,000).
3. $1,410,000 of the 2003 Series A GOB is attributable to the Sewer Authority.

The 2000 Sewer Revenue Note accrues interest on the Authority's Financial Statement, calculated annually by the Authority's auditor.

97.6 percent of the 2000 Sewer Revenue Note Debt is attributable to Treatment Facilities at the Waste Water Treatment Plant (WWTP).

The 2000 Sewer Revenue Note Amortizes $6,000 Annually of Closing Costs on the Authority's Financial Statement and is included as debt service cost in calculating the Borough Charge.

Additionally, the interest expense reported by the Schuylkill Municipal Haven Authority on its annual financial statements for the 2000 Sewer Revenue Note will include an accrued expense for the year end period between the date of the last debt payment (nominally August 1) and the end of the year.

An Equal Opportunity Employer

BOND DEBT SERVICE

Borough of Schuylkill Haven
Sewer Portion of Series A of 2003

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
08/25/2003	-	-	-	-	-
11/15/2003	55,000	1.000%	9,078.75	64,078.75	64,078.75
05/15/2004	-	-	17,882.50	17,882.50	-
11/15/2004	60,000	1.150%	17,882.50	77,882.50	95,765.00
05/15/2005	-	-	17,537.50	17,537.50	-
11/15/2005	60,000	1.350%	17,537.50	77,537.50	95,075.00
05/15/2006	-	-	17,132.50	17,132.50	-
11/15/2006	115,000	1.800%	17,132.50	132,132.50	149,265.00
05/15/2007	-	-	16,097.50	16,097.50	-
11/15/2007	145,000	2.100%	16,097.50	161,097.50	177,195.00
05/15/2008	-	-	14,575.00	14,575.00	-
11/15/2008	200,000	2.400%	14,575.00	214,575.00	229,150.00
05/15/2009	-	-	12,175.00	12,175.00	-
11/15/2009	210,000	2.700%	12,175.00	222,175.00	234,350.00
05/15/2010	-	-	9,340.00	9,340.00	-
11/15/2010	180,000	3.000%	9,340.00	189,340.00	198,680.00
05/15/2011	-	-	6,640.00	6,640.00	-
11/15/2011	155,000	3.300%	6,640.00	161,640.00	168,280.00
05/15/2012	-	-	4,082.50	4,082.50	-
11/15/2012	115,000	3.500%	4,082.50	119,082.50	123,165.00
05/15/2013	-	-	2,070.00	2,070.00	-
11/15/2013	115,000	3.600%	2,070.00	117,070.00	119,140.00
	1,410,000		244,143.75	1,654,143.75	1,654,143.75

Included in 2,439,000

BOND DEBT SERVICE

BOROUGH OF SCHUYLKILL HAVEN
Refunding of 1998 A and B

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
08/25/2003	-	-	-	-	-
11/15/2003	90,000	1.000%	15,687.50	105,687.50	105,687.50
05/15/2004	-	-	30,925.00	30,925.00	-
11/15/2004	100,000	1.150%	30,925.00	130,925.00	161,850.00
05/15/2005	-	-	30,350.00	30,350.00	-
11/15/2005	100,000	1.350%	30,350.00	130,350.00	160,700.00
05/15/2006	-	-	29,675.00	29,675.00	-
11/15/2006	200,000	1.800%	29,675.00	229,675.00	259,350.00
05/15/2007	-	-	27,875.00	27,875.00	-
11/15/2007	250,000	2.100%	27,875.00	277,875.00	305,750.00
05/15/2008	-	-	25,250.00	25,250.00	-
11/15/2008	350,000	2.400%	25,250.00	375,250.00	400,500.00
05/15/2009	-	-	21,050.00	21,050.00	-
11/15/2009	365,000	2.700%	21,050.00	386,050.00	407,100.00
05/15/2010	-	-	16,122.50	16,122.50	-
11/15/2010	310,000	3.000%	16,122.50	326,122.50	342,245.00
05/15/2011	-	-	11,472.50	11,472.50	-
11/15/2011	265,000	3.300%	11,472.50	276,472.50	287,945.00
05/15/2012	-	-	7,100.00	7,100.00	-
11/15/2012	200,000	3.500%	7,100.00	207,100.00	214,200.00
05/15/2013	-	-	3,600.00	3,600.00	-
11/15/2013	200,000	3.600%	3,600.00	203,600.00	207,200.00
	2,430,000		422,527.50	2,852,527.50	2,852,527.50

FIRST UNION

BOND DEBT SERVICE

BOROUGH OF SCHUYLKILL HAVEN
2000AB

Sewer

Period Ending	Principal	Coupon *	Interest +	Debt Service	Annual Debt Service
12/20/2000	-	-	-	-	-
02/01/2001	-	-	12,596.67	12,596.67	-
08/01/2001	-	-	55,302.45	55,302.45	67,899.12
02/01/2002	-	-	55,302.45	55,302.45	-
08/01/2002	-	-	55,302.45	55,302.45	110,604.90
02/01/2003	65,000	5.097%	55,302.45	120,302.45	-
08/01/2003	-	-	53,645.93	53,645.93	173,948.38
02/01/2004	255,000	5.097%	~~53,645.93~~	~~308,645.93~~	-
08/01/2004	-	-	~~47,147.25~~	~~47,147.25~~	355,793.18
02/01/2005	270,000	5.097%	47,147.25	317,147.25	-
08/01/2005	-	-	40,266.30	40,266.30	357,413.55
02/01/2006	280,000	5.097%	40,266.30	320,266.30	-
08/01/2006	-	-	33,130.50	33,130.50	353,396.80
02/01/2007	300,000	5.097%	33,130.50	333,130.50	-
08/01/2007	-	-	25,485.00	25,485.00	358,615.50
02/01/2008	315,000	5.097%	25,485.00	340,485.00	-
08/01/2008	-	-	17,457.23	17,457.23	357,942.23
02/01/2009	335,000	5.097%	17,457.23	352,457.23	-
08/01/2009	-	-	8,919.75	8,919.75	361,376.98
02/01/2010	350,000	5.097%	8,919.75	358,919.75	-
08/01/2010	-	-	-	-	358,919.75
	2,170,000		685,910.39	2,855,910.39	2,855,910.39

2,557,103.92

* Variable Rate = 77% of 30-day LIBOR

= 5.097% as of closing date

Borough of Schuylkill Haven
Schuylkill Haven, PA
Schedule of Non-Metered Sewage Connections
Non-Metered Connection Schedule 1.26
July 1, 2007

Non Metered Connection Flow	Basis of Flow Calculation	EDU's
1 Hillcrest	Metered Drinking Water	1
3 Hillcrest	Metered Drinking Water	1
5 Hillcrest	Metered Drinking Water	1
7 Hillcrest	Metered Drinking Water	1
9 Hillcrest	Metered Drinking Water	1
11 Hillcrest	Metered Drinking Water	1
13 Hillcrest	Metered Drinking Water	1
15 Hillcrest	Metered Drinking Water	1
2 Hillcrest	Well/EDU	1
6 HillCrest	Well/EDU	1
8 Hillcrest	Metered Drinking Water	1
10 HillCrest	Metered Drinking Water	1
12 HillCrest	Metered Drinking Water	1
16 HillCrest	Metered Drinking Water	1
18 HillCrest	Metered Drinking Water	1
820 East Main	Well/EDU	1
10 Pool Drive	Well/EDU	1
840 East Main	Metered Drinking Water	1
2 Earl (Airco)	Metered Drinking Water	1
4 Earl (Hrenyo)	Metered Drinking Water	1
6 Earl (?)	EDU	1
901 E Main	Metered Drinking Water	1
903 E Main	Metered Drinking Water	1
Alpha Mills	Metered Drinking Water	N/A

This Non-Metered Connection Schedule 1.26 may be added to if additional EDU's connect to the North Manheim Township Authority's collection system which connects to the Borough of Schuylkill Haven's collection system at an unmetered connection point.

NORTH MANHEIM TOWNSHIP AUTHORITY
POINTS OF CONNECTIONS AND METERING POINTS
INTO
THE BOROUGH OF SCHUYLKILL HAVEN
SANITARY SEWER SYSTEM
EXHIBIT ____

NOT FOR CONSTRUCTION/NOT FOR BIDDING

WASTEWATER COLLECTION SYSTEM
DRAINAGE AREA MAP
INFLOW AND INFILTRATION PLAN
FOR THE
BOROUGH OF SCHUYLKILL HAVEN
OVERALL SYSTEM MAP
BOROUGH OF SCHUYLKILL HAVEN SCHUYLKILL COUNTY, PA

DATE: OCTOBER 2006
SHEET NO. 1 OF 1
DWG. NO. OA-03963-005

RETTEW
RETTEW Associates, Inc.
Union Square Station, 101 East Union Street
Pottsville, PA 17901
Phone (570) 622-8222 - Fax (570) 622-4265
Email: rettew@rettew.com Website: www.rettew.com
Bethlehem, PA - Camp Hill, PA - Pottsville, PA - York, PA
Engineers • Surveyors • Transportation Consultants
Environmental Consultants • IT Consultants

CLIENT
BOROUGH OF SCHUYLKILL HAVEN
12 WEST MAIN STREET
SCHUYLKILL HAVEN, PA 17972
(570) 385-2841

SCALE
1" = 400'
0 200 400 800 1200

MANAGER: CLAYTON BUBECK, P.E.		SURV. CHIEF:	FIELD BOOK NO. DAB CHECKS	FOR RETTEW ASSOCIATES BY:
DESIGN BY:	CHKD BY:	DRAWN BY: CH	CHKD BY:	
DRAWING REFERENCE:				
SPECS:				

NO.	DATE	REVISION

SCHEDULE 6.5
FORM OF REQUISITION

Form of requisition from Township Supervisors:

Request for Reimbursement for Professional
Fees Under Inter-Municipal Agreement

FROM: North Manheim Township Municipal Authority

TO: Schuylkill Haven Municipal Authority

(a) North Manheim Township Solicitor
(Services from _____, 20____
through _____, 20___ per attached
invoices: $_____

(b) North Manheim Township Engineer
(Services from _____, 20____
through _____, 20___ per attached
invoices: $_____

Total: $_____

Certified to be True and Correct.

North Manheim Board of Supervisors

By: _____
Date: _____, 20____

Form of requisition from Township Municipal Authority:

Request for Reimbursement for Professional
Fees Under Inter-Municipal Agreement

FROM: North Manheim Township Municipal Authority

TO: Schuylkill Haven Municipal Authority

(a) North Manheim Township Municipal Authority Solicitor:
(Services from _____, 20____
through _____, 20___ per attached
invoices: $_____

(b) North Manheim Township Municipal Authority Engineer:
(Services from _____, 20____
through _____, 20___ per attached
invoices: : $_____

Total: $_____

Certified to be True and Correct.

North Manheim Township Municipal Authority

By: _____
Date: _____, 20____

NMTA and Lehigh Valley Dairy Farm Sewage Agreement, 05/14/2013

AGREEMENT

THIS AGREEMENT ("Agreement") is made this 14th day of May, 2013, between TUCSAN LEHIGH DAIRIES, L.P., a Pennsylvania limited Partnership, having an address of 110 Manheim Road, Schuylkill Haven, PA 17972 also known as Lehigh Valley Dairy Farm ("LVDF")

A N D

NORTH MANHEIM TOWNSHIP AUTHORITY, a Pennsylvania municipal authority, having an address of P.O. Box 607, Schuylkill Haven, PA 17972 ("NMTA").

W I T N E S S E T H:

WHEREAS, LVDF is a wastewater customer of NMTA and as such is subject to the terms of Ordinance 1065 of the Borough of Schuylkill Haven as adopted by North Manheim Township via Ordinance 124 and NMTA Resolution 4-2012; and

WHEREAS, LVDF is currently billed by NMTA for sanitary sewer service based on water meter readings as furnished by the Borough of Schuylkill Haven; and

WHEREAS, LVDF has requested that NMTA bill LVDF for wastewater service based on wastewater effluent meter readings; and

WHEREAS, NMTA has evaluated the operations of LVDF and agrees to bill LVDF based on wastewater effluent readings subject to the terms and conditions as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and promises hereinafter set forth, and intending to be legally bound hereby, the parties agree as follows:

1. The above-referenced recitals are incorporated herein by this reference thereto.

2. NMTA shall continue to bill LVDF based on metered water flows through March 31, 2013 and shall commence billing based on wastewater effluent readings commencing April 1, 2013 provided that NMTA and LVDF have signed this Agreement on or before May 30, 2013.

3. Commencing during the month of May, 2013, LVDF shall provide to NMTA wastewater effluent daily meter readings on a monthly basis on or around the 15th of every month for the immediately preceding month that has just closed.

4. LVDF shall also provide to NMTA the flow chart records and totalizer readings for the LVDF wastewater effluent meter.

5. LVDF shall submit to NMTA its quarterly wastewater effluent meter calibration reports within 15 days of receiving same from the calibrating entity.

6. LVDF shall within 30 days of execution of this Agreement cause the LVDF wet well by-pass valve to be sealed with a seal acceptable to NMTA and said by-pass valve shall not be used without the prior written consent of NMTA except in cases of emergency where LVDF shall notify NMTA as soon as possible of the use of the by-pass valve.

7. LVDF represents and warrants that all wastewater is discharging into the wet well and metered by the wastewater effluent meter prior to entering the NMTA sewer system.

8. In the event of the occurrence of any of the following situations, NMTA may adjust the billing to LVDF to be based on water meter readings for the month in which any one or more of the following occurs:

a. The wastewater effluent meter is reading incorrectly as determined by meter calibration,

b. The wastewater effluent meter is off-line for any period of time,

c. The by-pass valve is used for any purpose,

d. It is determined by NMTA that any wastewater effluent is not being discharged to the wet well and metered by the wastewater effluent meter.

8. 2. In the event that LVDF fails to comply with any of the terms hereof within ten (10) days after written notice from NMTA, NMTA may declare this Agreement to be in default and may revert to billing LVDF based on water meter readings on the same basis as in existence prior to the terms of this Agreement and LVDF agrees to pay for all the reasonable charges of NMTA's solicitors and engineers in enforcing this agreement.

9. NMTA shall bill LVDF based on the terms of this Agreement on or before the end of the month in which NMTA receives wastewater effluent daily meter readings for the immediately preceding month as set forth in paragraph 3 above, with the first such billing to occur on or about May 30,, 2013, for the month of April, 2013 and this Agreement and the changes to the billing process shall not be retroactive.

10. LVDF acknowledges and agrees that billing based on wastewater effluent meter readings does not qualify for the discount that LVDF currently receives for water usage over 1,000,000 gallons in any quarter as set forth in Resolution 1-2012 of the Authority.

11. LVDF acknowledges and agrees that the billing based on the wastewater effluent meter readings shall be in accordance with the then current rates as set forth in the NMTA resolutions, as amended.

12. LVDF agrees that NMTA may perform dye testing of the LVDF systems at any time to determine whether or not all wastewater effluent is being discharged to the wet well.

13. LVDF acknowledges that odors are regulated as Pollutants pursuant to North Manheim Township Ordinance 124 and NMTA Resolution 4-2012 and as such LVDF agrees as follows:

a. To investigate and respond to NMTA in ten (10) business days to all odor complaints received by LVDF from whatever source.

b. To correct the cause of any odors.

c. To track odor levels at the LVDF pretreatment facility on a daily log chart kept on site at the pretreatment facility.

d. To grant access to all areas of the property occupied by the LVDF facility and served by the NMTA sewer system to NMTA, its agents, employees, contractors and representatives, upon reasonable notice, for the purposes of inspection, measurement, sampling, testing and performance of other functions relating to the NMTA sewer system.

14. LVDF agrees to pay for all the reasonable charges of NMTA's solicitors and engineers in investigating and preparing this Agreement and NMTA agrees to refund any unused amounts held by NMTA in escrow upon the full execution hereof. LVDF further agrees to pay for all the reasonable charges of NMTA's solicitors and engineers in investigating and responding to odor complaints as set forth herein.

15. This Agreement may not be modified except by amendment in writing signed by all parties hereto.

16. This Agreement shall be interpreted and construed in accordance with the laws of the Commonwealth of Pennsylvania.

17. This Agreement contains the entire agreement between the parties hereto and all prior agreements and understandings shall be merged herein.

18. This Agreement may not be assigned by LVDF without the prior written consent of NMTA.

IN WITNESS WHEREOF, the parties hereto have set forth their hands and seals on the date above written.

NORTH MANHEIM TOWNSHIP AUTHORITY

ATTEST:

By: _____
Chairman

_____
(Assistant) Secretary

TUCSAN LEHIGH DAIRIES, L.P.

By: _____
(Vice) President

Attest: Brenda Haag
Secretary

Sewer System Acquisition Agreement between NMTA and Continental Construction and Developing Co., 11/27/2006

The Villas

c&d-seweracquisition-table

SEWER SYSTEM ACQUISITION AGREEMENT

BETWEEN

NORTH MANHEIM TOWNSHIP AUTHORITY

AND

CONTINENTAL CONSTRUCTION & DEVELOPING CO.

DATED: November 27, 2006

TABLE OF CONTENTS

Page

Introduction 1

Terms of This Agreement. 3

1. Incorporation; Definition. 3

2. Design and Construction of Villas Collection System. 3

2.1 Design and Cost. 3
2.2 Agreement to Construct and Dedicate. 3
2.3 Contractors. 4
2.4 Permits 4
2.5 Easements. 4
2.6 Observation by Authority Engineer. 4
2.7 Field Changes. 5
2.8 Inter-connection of Villas Collection System with Authority Collection System 5

3. Reserved Capacity Allocation; Equivalent Dwelling Units. . . . 6

3.1 Borough Tapping Fee. 6
3.2 Limitation on Transfer of Reserved Capacity Allocation . 7
3.3 Expiration of Reserved Capacity Allocation 7

4. Insurance and Indemnity. 7

4.1 Insurance. 7
4.2 Indemnification. 8

5. Dedication; As Built Plans 8

5.1 Dedication 8
5.2 As Built Plans 8

6. Payment of Fees and Charges. 9

6.1 Tapping Fees and Charges 9
6.2 Fees of Authority Engineer 9
6.3 Other Costs and Expenses of the Authority. 9

7. Financial Security 10

7.1 Security for Performance 10
7.2 Security for Maintenance 10

8. User Fees; Compliance with Codes and Regulations 11

8.1 User Fees. 11
8.2 Compliance with Codes and Regulations. 11

9. Transfer of Developer's Interest in this Agreement 12

9.1 Permitted Assignee 12
9.2 No Other Assignment Without Consent. 12
9.3 Change of Control. 13

10. Miscellaneous. 14

10.1 Entire Agreement 14
10.2 Supremacy of this Agreement. 14
10.3 Permit Moratorium. 14
10.4 Binding Effect 15
10.5 Notices. 15

TABLE OF EXHIBITS

EXHIBIT "A" THE LAND

EXHIBIT "B" DEFINED TERMS

EXHIBIT "C" PLANS AND SPECIFICATIONS

EXHIBIT "D" VILLAS COLLECTION SYSTEM COST

EXHIBIT "E" FORM OF LETTER OF CREDIT

SEWER SYSTEM ACQUISITION AGREEMENT

THIS SEWER SYSTEM ACQUISITION AGREEMENT (herein referred to as the "Agreement") made this 27th day of November 2006 by and between the NORTH MANHEIM TOWNSHIP AUTHORITY, a municipal authority created under the Pennsylvania Municipality Authorities Act of 1945, with an office or principal place of business located at R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania 17901(the "Authority"), and CONTINENTAL CONSTRUCTION & DEVELOPING CO., a Pennsylvania corporation with an office or principal place of business located at One Field of Dreams Drive, Pottsville, Schuylkill County, Pennsylvania 17901 ("Developer").

WITNESSETH:

The Developer is the owner of 9.396 acres of land located in North Manheim Township, Schuylkill County, Pennsylvania more fully described on Exhibit "A" attached hereto (the "Land"). The Land is a part of land shown on a subdivision plan (the "Subdivision Plan") entitled "Sunnyside Development" and recorded in Map Book 29 at page 92 in the Schuylkill County Recorder of Deeds Office (the "Recorder's Office"). On the Subdivision Plan, the Land is designated Phases VIII, IX, and X, and is also designated Lots 1, 2, and 3. The remaining land shown on the Subdivision Plan is designated Phases I, II, III, IV V, VI and VII of the Sunnyside Development, and has been developed, and continues to be developed, for single family detached housing (the "Sunnyside Single Family Development").

The Developer proposes to establish a multi-family residential community on the Land to be known as "The Villas at Sunnyside" (the "Villas Development") in accordance with the Pennsylvania Uniform Planned Community Act, 68 Purdon's Pennsylvania Consolidated Statutes 5601 et seq. as amended (the "Planned Community Act"). The Villas Development will contain fifty-one (51) attached homes (each a "Residence" or collectively, the "Residences"). A development plan for the Villas Development (the "Villas Development Plan")

has been approved by the Board of Supervisors of North Manheim Township (the "Township") and is recorded in Map Book ____ at page ____ in the Recorder's Office. The Developer and the Township are also parties to an Improvements Agreement dated _____, 2006 with respect to the Villas Development (the "Improvements Agreement"). The Improvements Agreement provides the terms upon which the Developer will be required to install a sanitary sewage collection system (the "Villas Collection System"), together with a storm water detention pond, swales, piping, roadways and other improvements (collectively, with the Villas Collection System, the "Improvements") in the Villas Development.

The Authority is a Pennsylvania Municipal Authority incorporated under the Pennsylvania Municipal Authorities Act of 1945, now, by re-enactment, the Pennsylvania Municipal Authorities Act of June 19, 2001, P.L. 287, No. 22, Pa. C.S.A. 5601 et seq. 53 (the "Authorities Act"). The Authority owns and operates a sanitary sewage collection system which provides sewage collection service to certain parts of North Manheim Township, including the Sunnyside Single Family Development (the "Authority Collection System"). Sewage discharged into the Authority Collection System is conveyed to a point of connection with a collection system owned and operated by, and located within the Borough of Schuylkill Haven (the "Borough"), and is thereafter transported to and treated at a wastewater treatment plant also owned and operated by, and located within, the Borough (collectively with the collection system located within the Borough, the "Borough System", all in accordance with the provisions of an Inter-Municipal Agreement between the Borough and the Authority dated July 14, 1999 (the "Inter-Municipal Agreement").

The Developer wishes to connect the Villas Collection System to the Authority Collection System so that sewage collection and treatment service will be available to the Residences to be constructed in the Villas Development. The Developer has offered to design and construct the Villas

Collection System, at the sole cost of the Developer, and, upon completion, to dedicate it to Authority for operation and use. The Authority has agreed to accept dedication of the Villas Collection System as and when constructed by the Developer in accordance with the terms of this Sewer System Acquisition Agreement which they have executed to reduce the terms of their understanding to writing.

Terms of This Agreement

1. Incorporation; Definitions. The foregoing Introduction is incorporated herein by reference.

Each term which appears in this Introduction, or in the following sections of the document, which is intended to have a defined meaning shall be defined on the first occasion of its use. After any term has been defined in the Introduction or elsewhere, it will thereafter be identified by capitalizing the first letter of the term. For convenient reference, all defined terms have been listed alphabetically on Exhibit "B" attached to Agreement.

2. Design and Construction of Villas Collection System.

2.1 Design and Cost. The Developer has caused the Villas Sewer System to be designed. The design plans and specifications for the construction of the Villas Collection System are identified on Exhibit "C" attached hereto (the "Plans and Specifications"). The Plans and Specifications have been approved by Systems Design Engineering, Inc., the consulting engineers for the Authority (the "Authority Engineer"). The cost of the Villas Collection System which has been calculated by the Developer and approved by the Authority is One Hundred Fifty-Five Thousand Two Hundred Sixty-Two ($155,262.00) Dollars (the "Villas Collection System Cost"), the components of which are itemized on Exhibit "D" attached hereto.

2.2 Agreement to Construct and Dedicate. The Developer shall construct the Villas Collection System in accordance with the Plans and Specifications, at the Developer's sole cost and expense. The Developer

shall complete construction of the Villas Collection System within the times provided for the completion of the other Improvements in the Improvements Agreement. Following the completion of construction of the Villas Collection System, the Developer shall convey, transfer and dedicate the Villas Collection System to the Authority in accordance with Section 5.1 of this Agreement.

2.3 Contractors. The contractors engaged by the Developer to construct the Villas Collection System shall be experienced in the type of work to be performed and otherwise likely to perform their work in a competent, safe, and expeditious manner. The Developer will notify the Authority in writing of the identity of such contractors not less than twenty (20) days prior to the commencement of any work by such contractors.

2.4 Permits. The Developer shall obtain any and all required permits, licenses or approvals at its sole cost and expense before commencing construction of the Villas Collection System.

2.5 Easements. The Developer represents and warrants to the Authority that no additional easements or rights-of-way over real property other than the Land are necessary to construct the Villas Collection System, or to connect the Villas Collection System to the Authority Collection System at the point of interconnection shown on the Plans and Specifications. The Developer nonetheless agrees to obtain and pay all costs associated with the acquisition of any additional easements and rights-of-way that may be required.

2.6 Observation by Authority Engineer. The Authority and the Authority Engineer shall have the right to observe the construction of the Villas Collection System and to demand that the construction of the Villas Collection System complies with the Plans and Specifications. The Authority shall have the right to suspend work on the Villas Collection System pending compliance with the Plans and Specifications upon written notice to the Developer specifying, in reasonably sufficient detail, the reasons for

suspending the work.

2.7 Field Changes. The Developer shall not make any field changes to the Villas Collection System (or any portion thereof) without the prior written approval of the Authority. All such field changes shall be signed and sealed by a registered professional engineer of the Commonwealth of Pennsylvania prior to being submitted for approval. If a requested field change is not approved by the Authority within thirty (30) days after written request by the Developer, or at the next scheduled Authority meeting which ever shall occur first, then the Developer shall have the right to arbitration of such dispute. The Arbitration Board shall consist of the Authority Engineer, the Engineer for the Developer, and an Engineer who shall act as umpire who shall be chosen by both of the above Engineers within five (5) days after the Developer's request for arbitration of the dispute. The umpire shall be completely independent and have no prior knowledge of the dispute. The decision by majority of the arbitrators shall be binding upon both the Authority and the Developer. Neither party shall have the right to appeal the arbitration decision to the Court of Common Pleas of Schuylkill County or to any other tribunal. The Developer and the Authority shall each bear one-half of the cost of arbitration.

2.8 Inter-connection at Villas Collection System with Authority Collection System. The Developer shall not cause or permit the Villas Collection System to be connected to the Authority Collection System unless and until written permission has been received from the Authority to make such connection. The Authority shall not give such permission until the Villas Collection System has been constructed in accordance with this Agreement and the Plans and Specifications, and after such testing as is deemed necessary by the Authority. The Authority consents to the connection of the Villas Collection System at the connection point shown on the Plans and Specifications after the Villas Collection System has been constructed in accordance with this Agreement and with the Plans and Specifications. The

Developer shall not permit any Residence to be occupied before the Villas Collection System is constructed and connected to the Authority Collection System. The Developer agrees that it shall not, without the prior written consent of the Authority, connect or otherwise permit the discharge of waste water or sewage from any property or party, other than the Residences located in the Villas Development, and, in such case, only for the purpose of discharging domestic waste water sewage.

3. Reserved Capacity Allocation; Equivalent Dwelling Units.

3.1 Borough Tapping Fee. The parties acknowledge that the obligation of the Borough to consent to the connection of additional users to the Authority Collection System is an issue in litigation between the Borough and the Authority, presently pending in the Schuylkill County Court of Common Pleas. The parties further acknowledge that although the litigation remains pending, the Authority and the Borough have agreed that, upon payment to the Borough by the Authority of a tapping fee for each Residence in the amount of $2,483.00 (the "Borough Tapping Fee") the Borough will reserve capacity in the Borough System (the "Reserved Capacity Allocation") sufficient to assure sewage treatment service for that number of Residences for which the Borough Tapping Fee is paid, and that the Borough will accept sewage discharged from those Residences for treatment in accordance with the Inter-Municipal Agreement. The Authority acknowledges receipt of the sum of $126,633.00 from the Developer representing the Borough Tapping Fee for all of the Residences. The Authority warrants and represents that it has transmitted the Borough Tapping Fee for the Residences to the Borough and that nothing further is required from the Authority to connect the Villas Collection System to the Authority Collection System, and receive sewage flows from the 51 Residences as and when constructed in accordance with this Agreement, except payment of tapping fees of the Authority for the Residences. The parties acknowledge that for all purposes of this Agreement, and the Inter-Municipal Agreement, one Residence is one Equivalent Dwelling Unit (an "EDU").

3.2 Limitation on Transfer of Reserved Capacity Allocation. The Developer shall have no right to transfer all or any portion of the Reserved Capacity Allocation to any other person or entity, except in connection with the transfer of all or any part of Land (in which case, the Reserve Capacity Allocation may be transferred to the Developer's successors in interest, for use only, however, in connection with the Villas Development, subject to the terms of this Agreement. The Reserved Capacity Allocation must be used by Residences located in the Villas Development within ten (10) years after the date of this Agreement, subject to possible extension as provided below. Provided, however, that the Developer, with the prior written consent of the Authority may transfer any portion of the Reserved Capacity Allocation specified in any such written consent to any other person or entity also specified in any such written consent to be used within the Villas Development.

3.3 Expiration of Reserved Capacity Allocation. Any portion of the Reserved Capacity Allocations not utilized for connections to Residences by the tenth (10^{th}) anniversary of the date of this Agreement shall expire, unless such period is extended by the Authority in its discretion reasonably exercised. If the Developer shall begin to pay, and shall continue to pay to the Authority, the then current sewer rental for a single EDU for each Residence in the Villas Development for which the Reserved Capacity Allocation has not been utilized, the Reserved Capacity Allocation shall continue to be available to the Developer for as long as the Developer shall make such payments.

4. Insurance and Indemnity.

4.1 Insurance. Until the Villas Collection System has been dedicated or transferred to the Authority and accepted by the Authority, the Developer shall obtain and maintain liability insurance coverage both from an insurer and having limits acceptable to Authority, and naming the Authority as an additional insured. If the Developer engages the services of a bona

fide independent contractor to construct the Villas Collection System, the Authority will consider accepting that contractor's insurance coverage in lieu of the Developer's coverage. The Developer shall provide certificates of such insurance to Authority.

4.2 Indemnification. The Developer shall indemnify and hold harmless the Authority and Borough and their respective agents, employees, consultants and/or contractors from any and all loss, damage and liability by reason of its construction of said Villas Collection System, including but not limited to all expenses reasonably incurred by Authority and Borough in defending themselves, individually or collectively from any damage or injury alleged to be caused by the Developer, its agents, employees and/or contractors. This indemnity is limited to claims not resulting from the negligence or willful acts of the Authority, the Borough, or their respective agents, employees, consultants and/or contractors.

5. Dedication; As Built Plans.

5.1 Dedication. Upon completion of the Villas Collection System to the satisfaction of the Authority, the Developer shall convey, transfer and dedicate the same, together with any and all necessary easements and rights-of-way to Authority so as to be and become the sole and separate property of Authority and Authority shall accept such dedication, subject to the terms and conditions set forth herein. The Developer covenants and agrees to execute such documents as may be required to accomplish that conveyance, transfer and dedication.

5.2 As Built Plans. The Developer shall specifically include in all its bid specifications and contract documents with its contractors a provision requiring such contractors to maintain one record copy of all drawings in good order at the project site, to annotate on such drawing all changes made during the course of construction, and to deliver such annotated documents to the Developer upon completion of the work. Within one (1) year of the date of conveyance, transfer and dedication of the Villas Sewer System

to the Authority, the Developer shall provide to Authority a mylar copy of the as built Plans and Specifications, as they exist at the time of completion and acceptance by Authority (the "As Built Plans"). The As Built Plans shall incorporate any and all annotations and changes to the drawings affected by the Developer's contractors.

6. Payment of Fees and Charges.

6.1 Tapping Fees and Charges. Subject to Paragraph 9 hereof, and in addition to the Borough Tapping Fee, the Developer shall pay to Authority all Tapping Fees and charges based upon the Authority's schedule of fees and charges in effect from time to time, for each Residence connected to the Villas Collection System. The obligation for payment of fees and charges shall be binding on the successors and assigns of the Developer as though a covenant running with the Land.

6.2 Fees of Authority Engineer. The Developer agrees to pay all costs associated with the observation of the construction of the Villas Collection System charged to the Authority by the Authority Engineer. To the extent that the Authority Engineer is retained by the Township Board of Supervisors to observe the Villas Collection System on behalf of the Township, there shall be no duplication of costs of such observation to the Developer. All charges shall comply with Section 510(g) of the Municipalities Planning Code and the Developer shall have the same remedy for questioning and/or contesting such charges as is provided in Section 510(g) of the Municipalities Planning Code. The Developer shall be provided with copies of all invoices of the Authority Engineer for observation costs. For purposes of calculating travel time, Schuylkill Haven shall be deemed to be the base office of the Authority Engineer.

6.3 Other Costs and Expenses of the Authority. In addition to the fees and charge set forth above, the Developer agrees to pay Authority's out of pocket costs and expenses relating to The Villas Collection System, including any construction costs, engineering costs, legal costs, observation

and testing costs and connection costs. All charges which the Developer shall be required to pay shall be reasonable, and customary, and specifically related to the project, and shall be detailed with reasonable sufficiency as to the date and nature of the service performed or expense incurred, and, in the case of services, the time devoted to such service.

7. Financial Security.

7.1 Security for Performance. The Developer agrees to provide a letter of credit in the form attached as Exhibit "E", and in the amount of $170,788.20 or one hundred ten (110%) percent of The Villas Collection System Cost from a lending institution acceptable to the Authority or such other security as shall comply with Section 4(s.1) of the Authorities Act, to guarantee its fulfillment of its obligations hereunder, in form and substance satisfactory to the Authority (the "Performance Letter of Credit"). No construction shall occur unless and until the Performance Letter of Credit security has been furnished.

In the event an agreed change or a change by decision of the Board of Arbitration occurs, pursuant to Section 2.7 which results in an increase or decrease in The Villas Collection System Cost, the Performance Letter of Credit shall be modified or supplemented accordingly.

7.2 Security for Maintenance. Not later than the date of the Authority's acceptance of dedication of the Villas Collection System, the Developer shall provide to Authority, a letter of credit from a lending institution acceptable to Authority in an amount equal to ten (10%) percent of the Villas Collection System Cost (the "Maintenance Letter of Credit"). The Maintenance Letter of Credit shall remain in existence until the expiration of one (1) year from the date Authority accepts dedication of the Villas Collection System as provided in Section 5 hereof. The Developer shall have the authority to order necessary repairs or maintenance to the Villas Collection System but any such repairs or maintenance will require the advance approval of the Authority before the payment of the same may be made

by the Developer or from the Maintenance Fund. The obligation of the Developer to repair and maintain the Villas Collection System shall include, but not be limited to, the obligation of surface restoration should any such restoration be necessary upon the completion of any repairs and/or maintenance of the Villas Collection System, and shall also specifically include the obligation to prevent, to the extent reasonably possible, infiltration inflow into the Villas Collection System or the Authority Collection System. At the expiration of the one (1) year maintenance period, the Maintenance Letter of Credit shall be returned to the Developer provided that the Developer shall have complied with its obligations hereunder.

8. User Fees; Compliance with Codes and Regulations.

8.1 User Fees. All owners and occupiers of Residences shall be required to pay sewer rentals in such amounts, and shall be subject to such charges, fees, ordinances, rules and regulations, as shall be fixed and determined by the Authority and/or North Manheim Township, provided however, such owners or occupiers shall not be required to pay any connection charge or tapping fee in the event the same have already been paid by the Developer pursuant to Sections 3.1 and 6.1 hereof. Provided, however, that nothing in this Paragraph 8.1, however, shall be construed to modify any obligation of the Developer to make any payments under Section 3.3 hereof to maintain the Reserved Capacity Allocation.

8.2 Compliance with Codes and Regulations. The Developer shall be governed by all rules and regulations of the Authority with regard to the Villas Collection System. Nothing contained herein shall be construed to supersede or eliminate any requirements of existing ordinances or regulations of the Township, the Borough (to the extent applicable) or the Authority effecting plumbing or sewer installations, including without limitation, permit requirements.

All plumbing and sewage drainage facilities constructed or installed in any building, and all drainage lines connected with any sewer lateral,

involving any properties abutting on the Villas Collection System, must be made to comply with the provisions of the plumbing code ordinance and other applicable ordinances or regulations of North Manheim Township and the Authority, and no sewage shall be discharged or transported into the Authority Collection System unless and until the Authority and/or the Township shall have inspected and approved in writing such construction and installation of plumbing and sewage drainage facilities and connections to sewer laterals. Issuance of all permits required by all ordinances then in effect (building permit, occupancy permit, sewer connection permit, and the like) shall be conclusive compliance with this Paragraph 8.2.

9. Transfer of Developer's Interest in this Agreement.

9.1 Permitted Assignee. The obligations of the Developer hereunder may be assigned to Forino Co., L.P. (the "Permitted Assignee") without the written consent of the Authority, provided that the Permitted Assignee shall assume in writing and agree to be legally bound by all of the provisions hereof, and provided, further, that either (A) the lending institution issuing the Performance Letter of Credit and/or Maintenance Letter of Credit, as the case may be, (collectively, the "Letters of Credit") shall have confirmed, in writing, to the Township, that the rights and benefits of the Township under the Letter of Credit shall remain in full force and effect not withstanding the assignment of the Permitted Assignee by the Developer, and that for all purposes thereafter the term "Developer" in the Letter of Credit shall be amended to mean the Permitted Assignee or (B) the Permitted Assignee shall have caused the Letters of Credit in the form identical to the Letter of Credit to be issued by a conventional lending institution acceptable to the Authority in full amount of all amounts then remaining due to the Authority hereunder.

9.2 No Other Assignment Without Consent. Except for a transfer by the Developer to the Permitted Assignee, the rights granted hereunder to the Developer cannot in any event be sold, transferred, leased, assigned or

disposed of, including but not limited to, by force or voluntary sale, merger, consolidation, receivership or other means without the prior written consent of Authority, which consent shall not be unreasonably withheld. Provided, however, that in lieu of such written consent the Developer or the proposed transferee may post a performance bond in favor of the Authority in an amount and of a tenor which will assure performance of the obligations of the Developer and its assigns or transferees hereunder.

9.3 Change of Control. Except for transfers by the Developer to Permitted Assignee, transfers of control to entities or affiliates of Permitted Assignee owned or controlled by the family of Anthony Forino, and except for transfers of control to family of Anthony Forino, every change, transfer, or acquisition of control of the Developer shall make this Agreement subject to cancellation unless and until the Authority shall have consented thereto, which consent shall not be unreasonably withheld or delayed. The purpose of determining whether it shall consent to such change, transfer or acquisition of control, the Authority may inquire into the legal, financial, character, and technical qualifications of the prospective controlling party, and the Developer shall assist the Authority in any such inquiry. Failure to provide any information reasonably requested by the Authority as part of said inquiry shall be grounds for denial of the proposed changes, transfer or acquisition of control. The Developer shall promptly notify Authority of any proposed change in, or transfer of, or acquisition by any other party of, control of the Developer. The word "control" as used herein is limited to majority interests. A rebuttable presumption that a transfer of control has occurred shall arise upon the disposal by the Developer, directly or indirectly, by gift, assignment, voluntary sale, merger, consolidation or otherwise of fifty-one percent (51%) or more at one time of the ownership or controlling interest in Developer of such interest to a corporation, partnership, limited partnership trust or association, or person or group of persons acting in concert. The consent or approval of the

Authority to any transfer of the Developer shall not constitute a waiver or release of the rights of the Authority contained herein. Any transfer shall, by its terms, be expressly subordinate to the terms and conditions of this Agreement. Any approval by the Authority of transfer of ownership or control of the Developer shall be contingent upon the prospective controlling party becoming a signatory to this Agreement.

10. Miscellaneous.

10.1 Entire Agreement. This Agreement, and the documents incorporated herein by reference thereto, contain the entire agreement between the Developer and the Township and any or all prior agreements, representations and understandings, whether oral or written are superseded hereby.

10.2 Supremacy of this Agreement. The rights provided and obligations imposed by the Municipal Authorities Act shall be binding upon the parties, except to the extent that the Municipal Authorities Act conflicts with this Agreement in which event this Agreement shall control.

10.3 Permit Moratorium. Notwithstanding anything containing herein to the contrary, no permits for sewer connections will be issued while the Authority or the Borough is under citation from any governmental authority or agency prohibiting sanitary sewer connections. Furthermore, the Developer hereby acknowledges that the Department of Environmental Resources of the Commonwealth of Pennsylvania ("PADER") has within its power the right to preclude the Authority or the Borough from issuing any permits other than those already outstanding, in spite of the existence of an agreement obligating the Authority to provide such permits, and further has the authority to order the termination and discontinuance of all work and construction being done by the developer or owner pursuant to permits issued by the Authority. The Developer hereby waives, relinquishes, releases and forever discharges the Authority and Borough from any and all liability arising out of any such action which may be taken by PADER.

10.4 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the Authority, but shall not inure to the benefit of the successors and assigns of Residences, except in compliance with the provisions of this Agreement.

10.5 Notices.

If to the Authority:

North Manheim Township Authority
303 Manheim Road
Pottsville, PA 17901

With a copy to:

Cerullo, Datte & Wallbillich, P.C.
Attn: Paul J. Datte, Esquire
450 West Market Street
P.O. Box 450
Pottsville, PA 17901-0450

If to the Developer:

Continental Construction & Developing Co.
One Field of Dreams Drive
Pottsville, PA 17901

With a copy to:

Williamson, Friedberg & Jones, LLC
Attn: Harry B. Crosswell, Esquire
10 Westwood Road
P.O. Box 1190
Pottsville, PA 17901-1190

IN WITNESS WHEREOF, the parties have caused these presents to be duly executed the day and year first above written.

NORTH MANHEIM TOWNSHIP AUTHORITY

BY: _____
ALBERT T. BARNES, CHAIRMAN

CONTINENTAL CONSTRUCTION & DEVELOPING, CO.

BY: _____
KEVIN J. FANELLI, PRESIDENT

COMMONWEALTH OF PENNSYLVANIA :
: SS.
COUNTY OF SCHUYLKILL :

On this, the 27th day of November, 2006, before me a Notary Public in and for said County and State personally appeared KEVIN J. FANELLI, who acknowledges himself to be the PRESIDENT of CONTINENTAL CONSTRUCTION & DEVELOPING CO., and that he as PRESIDENT of such Corporation known to me (or satisfactorily proven) to be the person whose name is subscribed to the within Deed and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

NOTARY PUBLIC

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
HARRY B. CROSSWELL, NOTARY PUBLIC
CITY OF POTTSVILLE, SCHUYLKILL COUNTY
MY COMMISSION EXPIRES APRIL 19, 2010
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

ALL THAT CERTAIN parcel of land being THE VILLAS AT SUNNYSIDE as shown on the "Final Subdivision and Land Development Plan for The Villas at Sunnyside" prepared by Lehigh Engineering, LLC and dated 6/15/2006, situate in the Township of North Manheim, County of Schuylkill, and the Commonwealth of Pennsylvania more fully bounded and described as follows to wit:

TRACT 1

BEGINNING at a point along the northerly Right-of-Way line of Sunnyside Drive, said point being the southwesterly most corner of the herein described premises, marked by an iron pipe;

Thence along lands of Derick and Janet Rasmussen, lands of Edward and Cheryl Foulk, and lands of Cheryl Foulk, on a line bearing North twenty-six degrees, sixteen minutes, twenty-seven seconds West (N 26° 16' 27" W) a distance of three hundred twenty-two feet and thirty-eight hundredths of one foot (322.38 ft.) to a point marked by an iron pin;

Thence along lands of Stephen and Deanna Batory on a line bearing North seventy-four degrees, fifty-two minutes, seventeen seconds East (N 74° 52' 17" E) a distance of twenty-four feet and forty-eight hundredths of one foot (24.48 ft.) to a point;

Thence along lands of Sunnyside Homeowners Association on a line bearing North seventy degrees, ten minutes, forty-three seconds East (N 70° 10' 43" E) a distance of four hundred three feet and eight hundredths of one foot (403.08 ft.) to a point in the westerly right-of-way line of Jack and Jill Drive;

Thence along the westerly right-of-way line of Jack and Jill drive, fifty-three feet (53 ft.) wide, on a curve to the left having a central angle of forty-three degrees, thirty-five minutes, twenty-six seconds (43°35'26"), a radius of one hundred seventy-six feet and fifty hundredths of one foot (176.50 ft.), an arc length of one hundred thirty-four feet and twenty-eight hundredths of one foot (134.28 ft.), a chord bearing of South zero degrees, fifty-seven minutes, seventeen seconds East (S 0° 57' 17" E), and a chord length of one hundred thirty-one feet and seven hundredths of one foot (131.07 ft.) to a point;

Thence continuing along the westerly right-of-way line of Jack and Jill Drive on a line bearing South twenty-two degrees, forty-five minutes, zero seconds East (S 22° 45' 00" E) a distance of one hundred fifty-one feet and twenty-two hundredths of one foot (151.22 ft.) to a point;

Thence along the westerly right-of-way line of Jack and Jill Drive and the northerly right-of-way line of Sunnyside Drive on a curve to the right having a central angle of ninety degrees, zero minutes, zero seconds (90° 00' 00"), a radius of twenty-five feet and zero hundredths of one foot (25.00 ft.), an arc length of thirty-nine feet and twenty-seven hundredths of one foot (39.27 ft.), a chord bearing South twenty-two degrees, fifteen minutes, zero seconds West (S 22° 15' 00" W), and a chord length of thirty-five feet and thirty-six hundredths of one foot (35.36 ft.) to a point;

Thence along the northerly right-of-way line of Sunnyside Drive, sixty feet (60 ft.) wide, on a line bearing South sixty-seven degrees, fifteen minutes, zero seconds West (S 67° 15' 00" W) a distance of three hundred thirty-three feet and thirty-three hundredths of one foot (333.33 ft.) to the Point of Beginning.

Containing in area two acres and six hundred sixty thousandths of one acre (2.660 ac.)

TRACT 2

BEGINNING at a point on the northerly right-of-way line of Sunnyside Drive, North sixty-seven degrees, fifteen minutes, zero seconds East (N 67° 15' 00" E) a distance of four hundred thirty-six feet and thirty-three hundredths of one foot (436.33 ft.) from the southwesterly most corner of TRACT 1, said point being the southwesterly most corner of the herein described premises;

Thence along the northerly right-of-way line of Sunnyside Drive and the easterly right-of-way line of Jack and Jill Drive on a curve to the right having a central angle of ninety degrees, zero minutes, zero seconds (90° 00' 00"), a radius of twenty-five feet and zero hundredths of one foot (25.00 ft.), an arc length of thirty-nine feet and twenty-seven hundredths of one foot (39.27 ft.), a chord bearing North sixty-seven degrees, forty-five minutes, zero seconds West (N 67° 45' 00" W), and a chord length of thirty-five feet and thirty-six hundredths of one foot (35.36 ft.) to a point;

Thence along the easterly and southerly right-of-way line of Jack and Jill drive, fifty-three feet (53 ft.) wide the following four (4) courses and distances viz:

1. On a line bearing North twenty-two degrees, forty-five minutes, zero seconds West (N 22° 45' 00" W) a distance of one hundred fifty-one feet and twenty-two hundredths of one foot (151.22 ft.) to a point;

2. Along a curve to the right having a central angle of ninety degrees, zero minutes, zero seconds (90° 00' 00"), a radius of one hundred twenty-three feet and fifty hundredths of one foot (123.50 ft.), an arc length of one hundred ninety-four feet and zero hundredths of one foot (194.00 ft.), a chord bearing North twenty-two degrees, fifteen minutes, zero seconds East (N 22° 15' 00" E), and a chord length of one hundred seventy-four feet and sixty-six hundredths of one foot (174.66 ft.) to a point;

3. On a line bearing North sixty-seven degrees, fifteen minutes, zero seconds East (N 67° 15' 00" E) a distance of one hundred six feet and twenty-two hundredths of one foot (106.22 ft.) to a point;

4. Along a curve to the left having a central angle of fifty-one degrees, twenty-eight minutes, forty-five seconds (51° 28' 45"), a radius of four hundred fifty-one feet and eighty-two hundredths of one foot (451.82 ft.), an arc length of four hundred five feet and ninety-five hundredths of one foot (405.95 ft.), a chord bearing North forty-one degrees, thirty minutes, thirty-eight seconds East (N 41° 30' 38" E), and a chord length of three hundred ninety-two feet and forty-four hundredths of one foot (392.44 ft.) to a point;

Thence along lands of Gary L. Hepner on a line bearing South sixty-six degrees, fifty-one minutes, zero seconds East (S 66° 51' 00" E) a distance of two hundred twenty-eight feet and thirty-one hundredths of one foot (228.31 ft.) to a point in a tree;

Thence along lands of Lawrance and Anna Moore the following two (2) courses and distances viz:

1. On a line bearing South nine degrees, nineteen minutes, zero seconds East (S 9° 19' 00" E) a distance of one hundred sixty feet and eighty-seven hundredths of one foot (160.87 ft.) to a point;

2. On a line bearing North sixty-seven degrees, fifteen minutes, zero seconds East (N 67° 15' 00" E) a distance of one hundred thirty-three feet and five hundredths of one foot (133.05 ft.) to a point marked by an iron pin;

Thence on a line bearing South eight degrees, thirty-four minutes, zero seconds East (S 8° 34' 00" E) a distance of two hundred eighty-four feet and fifty hundredths of one foot (284.50 ft.) to a point in the northerly right-of-way line of Sunnyside Drive, sixty feet (60 ft.) wide;

Thence along the northerly right-of-way line of Sunnyside Drive the following two (2) courses and distances viz:

1. On a line bearing South eighty-one degrees, twenty-five minutes, zero seconds West (S 81° 25' 00" W) a distance of five hundred fifteen feet and twenty-four hundredths of one foot (515.24 ft.) to a point;

2. On a line bearing South sixty-seven degrees, fifteen minutes, zero seconds West (S 67° 15' 00" W) a distance of two hundred forty-three feet and fifty hundredths of one foot (243.50 ft.) to the point of beginning.

Containing in area six acres and seven hundred thirty-six thousandths of one acre (6.736 ac.).

TRACT 1 and TRACT 2 being a single premises not to be conveyed separately, containing in area nine acres and three hundred ninety-six thousandths of one acre (9.396 ac.)

UNDER AND SUBJECT to a Declaration of Easements, Restrictions and Conditions dated May 15, 1996 and recorded in Miscellaneous Book 450, at page 56, in the Recorder's Office.

DEFINED TERMS

Term	Page No.
Agreement	1
As Built Plans	9
Authorities Act	2
Authority	1
Authority Collection System	2
Authority Engineer	3
Borough	2
Borough Tapping Fee	6
Borough System	2
Developer	1
EDU	6
Improvements	2
Improvements Agreement	2
Inter-Municipal Agreement	2
Land	1
Letters of Credit	12
Maintenance Letter of Credit	10
PADER	14
Performance Letter of Credit	10
Permitted Assignee	12
Planned Community Act	1
Plans and Specifications	3
Recorder's Office	1
Reserved Capacity Allocation	6
Residence or Residences	1

EXHIBIT "B"

Subdivision Plan 1

Sunnyside Single Family Development 1

Township 2

Villas Collection System 2

Villas Collection System Cost 3

Villas Development 1

Villas Development Plan 1

PLANS AND SPECIFICATIONS
PREPARED BY LEHIGH ENGINERRING, LLC
HAVE BEEN DELIVERED SEPARATELY

Exhibit "C"

Systems Design Engineering, Inc.
Engineers • Surveyors • Planners • Construction Managers

September 6, 2006

Continental Construction and Developing Co.
1 Field of Dreams Dr.
Pottsville, PA 17901

ATTN: Kevin Fanelli

RE: The Villas at Sunnyside
North Manheim Township Authority Improvements

Dear Mr. Fanelli:

The total sum in the amount of $170,788.20 as represented in the attached "S-4" and as certified by Lehigh Engineering, LLC per attached letter dated September 1, 2006 is considered to be a fair and reasonable estimate of the cost of improvements for the above referenced project.

Sincerely,
SYSTEMS DESIGN ENGINEERING, INC.

Michael G. Pohronezny, Jr., P.E.
Authority Engineer

Encl.

CC: North Manheim Township Authority
Paul Datte, Esq.
SDE File 06-0140-0565

1032 James Drive • Leesport, PA 19533 • Tel. 610-916-8500 • Fax 610-916-8501 • www.sdei.net • sde@sdei.net
P.O. Box 353 • Schuylkill Haven, PA 17972 • Tel. 570-385-5549
Boyertown, PA • Tel. 610-369-1319

Exhibit "D"

File Copy

LEHIGH ENGINEERING, LLC

P. O. BOX 1200
200 MAHANTONGO STREET
POTTSVILLE, PA 17901

PHONE :(570) 628-2300
FAX: (570) 622-2612
E-MAIL: lehigh@lehighengineer.com

September 1, 2006

North Manheim Township Authority
950 E. Main St.
Suite 101
Schuylkill Haven, PA 17972

Re: The Villas at Sunyside
Construction cost estimate for escrow

Dear Authority Members:

I have reviewed the cost estimate for the Villas at Sunnyside which was prepared by Schlouch Incorporated and revised by Systems Design Engineering, dated June 13, 2006. This is an estimate for the construction of the sanitary sewer facilities. The quantities and costs appear to be consistent with the plan and with historic costs for the items. As a result of this review, I concur with the recommended escrow amount of $170,788.20. If you have any questions or need any additional information, please call.

Sincerely,
Lehigh Engineering, LLC

Mark E. Spatz, P.E.

NORTH MANHEIM TOWNSHIP AUTHORITY - THE VILLAS AT SUNNYSIDE COST ESTIMATE
PREPARED BY: SCHLOUCH INCORPORATED
REVISED BY SYSTEMS DESIGN ENGINEERING, INC. DATE: 6/13/2006

PLANS DATED: 12/01/05 REVISED: 03/07/06

DESCRIPTION	QUANTITY	UNITS	UNIT COST	AMOUNT
A) SANITARY SEWER				
1. 8" SDR 35 Pipe w/ 18" 1B Cover ***	1,074	LF	$32.62	$35,033.88
2. 6" PVC w/ 18" IB Cover	1,260	LF	$31.28	$39,412.80
3. Wyes and Fittings	51	EA	$185.00	$9,435.00
4. Standard Pre-Cast MH w/ Casting, and Frame	7	EA	$2,944.91	$20,614.37
5. Doghouse MH w/ Casting and Frame	1	EA	$3,061.99	$3,061.99
6. Manhole Inserts	8	EA	$56.00	$448.00
7. Drop Manhole Connection	1	EA	$756.42	$756.42
8. Core Into Existing MH	2	EA	$922.32	$1,844.64
9. Saw Cut Pavement	55	LF	$2.45	$134.75
10. Paving Restoration-4.5" BCBC, 1.5" Wearing	12	SY	$79.06	$948.72
11. Rock	119	CY	$150.00	$17,850.00
SUBTOTAL SANITARY SEWER CONSTRUCTION				$129,540.57

*** Manhole Run from MH VS05 to MH VS06 shall bedded in accordance with manufacturers recommendations due to being deeper than 12'-0"

B) SURVEY-STAKEOUT				
1. Survey Stakeout	1	LS	$2,661.43	$2,661.43
SUBTOTAL SURVEY-STAKEOUT				$2,661.43
C) TESTING				
1. Testing	1	LS	$2,698.00	$2,698.00
SUBTOTAL TESTING				$2,698.00
TOTAL SCHLOUCH COST ESTIMATE (BID DATE: 6/13/06)				$134,900.00
D) MISCELLANEOUS ITEMS				
1. As-Builts	1	LS	$2,500.00	$2,500.00
SUBTOTAL MISCELLANEOUS ITEMS				$2,500.00
TOTAL PROJECT COST ESTIMATE OF ITEMS A THRU D				$137,400.00
Construction Observation (6% +/-)				$8,244.00
Admin & Legal (2% +/-)				$2,748.00
Contingency (5%)				$6,870.00
SUBTOTAL OF CONSTRUCTION COSTS				$155,262.00
Additional Security (10%)				$15,526.20
TOTAL RECOMMENDED ESCROW AMOUNT				$170,788.20

Main Office
Excelsior Industrial Park
P.O. Box 69
Blandon, PA 19510

SCHLOUCH INCORPORATED

Phone: (610) 926-7070
Fax: (610) 926-7171

To:	L & K CONSTRUCTION INC.	Contact:	Kevin Fanelli
Address:	1 Field Of Dreams Drive	Phone:	(570) 385-4154
	Pottsville, PA 17901 U.S.A.	Fax:	(570) 385-9081
Project Name:	THE VILLAS AT SUNNYSIDE - SANITARY SEWER REV # 1	Bid Number:	06-035
Project Location:	NORTH MANHEIM TOWNSHIP, SCHUYLKILL COUNTY, SCHUYLKILL HAVEN, PA	Bid Date:	6/13/2006

Line #	Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
A: SANITARY SEWER						
	1005	8" PVC-18" 1B COVER	1,074.00	LF	$32.62	$35,033.88
	1016	6" PVC-18" 1B COVER	1,260.00	LF	$31.28	$39,412.80
	1024	WYES AND FITTINGS	51.00	EACH	$185.00	$9,435.00
	1029	SANITARY MANHOLES AVE 8.87'	7.00	EACH	$2,944.91	$20,614.37
	1043	DOGHOUSE MANHOLE 5.49'	1.00	EACH	$3,061.99	$3,061.99
	1044	MANHOLE INSERTS	8.00	EACH	$56.00	$448.00
	1045	DROP MANHOLE CONNECTION	1.00	EACH	$756.42	$756.42
	1060	CORE INTO EXISTING MANHOLE	2.00	EACH	$922.32	$1,844.64
	1080	SAW CUT PAVEMENT	55.00	LF	$2.45	$134.75
	1084	PAVING RESTORATION-4.5" BCBC, 1.5" WEARING	12.00	SY	$79.06	$948.72
	2000	ROCK-BUDGET	119.00	CY	$150.00	$17,850.00
					Total Price for above A: SANITARY SEWER Items:	$129,540.57
B: SURVEY - STAKEOUT						
	1085	SURVEY - STAKEOUT	1.00	LS	$2,661.43	$2,661.43
					Total Price for above B: SURVEY - STAKEOUT Items:	$2,661.43
C: TESTING						
	1099	TESTING	1.00	LS	$2,698.00	$2,698.00
					Total Price for above C: TESTING Items:	$2,698.00
					Total Bid Price:	$134,900.00

Notes:

- The contract price for this project has been calculated based upon current material prices. However, the market for materials, including but not limited to asphalt paving, concrete, ductile iron, PVC and RCP, is considered to be volatile and sudden price increases could occur. S.I. Agrees to use its best efforts to the lowest possible prices from qualified material suppliers, but should there be an increase in the prices of these materials that are purchased after execution of the contract for use in this project, the Owner agrees to pay that cost increase to S.I. Any claim by S.I. For payment of a cost increase, as provided above, shall require written notice to the Owner stating the increased cost, the material(s) in question and the source of the supply.
- The attached Special Conditions and N.I.C. List are to be considered as part of this proposal.
- 1. NOTES AND EXCLUSIONS REPRESENTED IN THE VILLAS AT SUNNYSIDE INFRASTRUCTURE PROPOSAL APPLY TO THIS PROPOSAL ALSO.

Payment Terms: Payment due within 30 days of date of invoice. Interest terms for late payment: One and one-half percent (1-1/2% per month, 18% annually on all balances which are past 30 days from invoice date). Price effective for 30 days.

SCHLOUCH
INCORPORATED

The Villas at Sunnyside

Notes

1) All clearing includes Roads, R.O.W., and Lot Clearing (Only what is depicted on plans).
2) All excess topsoil and fill to be stockpiled onsite.
3) No additional erosion and sedimentation control devices included in this proposal for stockpiling of excess fill/topsoil.
4) Swale 8, matting, seeding, respread of topsoil, and cut/fill/compact is not included in this proposal.
5) Infiltrator swales 1, 2, and 3 that are included in this proposal include respread of topsoil, matting and temporary seed only.
6) Proposal based upon borrowing fill from lot areas 13 through 34. We have included in this proposal to borrow the fill, respread topsoil on disturbed areas, and temporary seed these disturbed areas.
7) Erosion control measures for lots is not included.
8) Undercutting, removal and soils exchange is not included in this proposal.
9) The maintenance, restoration and cleaning out of basins and swales after initial construction is not included. .
10) All sanitary sewer priced as SDR-35.
11) Sanitary sewer stone envelope was priced as follows: 6" of 1B stone bedding to 18" over top of pipe.
12) Testing for sanitary sewer includes pressure, vacuum testing of manholes and mandrel.
13) Storm sewer ADS pipe stone envelope was priced as follows: 6" of 2A Modified stone bedding with 2A Modified stone to 1' over pipe.
14) Storm sewer RCP stone envelope was priced as follows: 6" of 2A Modified stone bedding with 2A Modified stone up to springline. No stone included for pipes coming out of basin.
15) Storm sewer run CB20 to CB21 priced as 106 l.f. of 18" SLCPP.
16) Storm runs ES6-7, CB4-CB5, ExCB C-CB22, and ExCBD-CB23 priced as RCP. All other runs priced as SLCPP.
17) There is a 6" bedding and 1' cover of 2A Modified for onsite waterline. All offsite water main to be full 2A Modified backfill.
18) Water services to terminate 1' behind curb. No booster pumps, meter boxes, or water meters included in this proposal.
19) Testing for water system includes pressure and bacteria.

Home Office • 132 Excelsior Drive • Excelsior Industrial Park • P.O. Box 69 • Blandon, PA 19510 • Phone 610-926-7070 • Fax 610-926-7171
Lehigh Valley Office • 700 Savage Road, Suite 5 • Northampton, PA 18067 • Phone 610-502-0966 • Fax 610-502-9893

20) All trenches outside of existing paved areas to use suitable onsite excavated fill over stone envelopes for all utility piping. Areas in existing paving to use full 2A Modified backfill.

21) The construction stakeout does not include: building lots, property monuments or pins.

22) Due to the current instability of petroleum based products, paving prices fluctuate and will be determined at the time of paving.

23) Due to the current instability of concrete prices, concrete curb and sidewalk prices fluctuate and will be determined at the time of curbing.

24) Owner to provide engineer approved for construction CADD file.

25) Estimate based upon plans by Lehigh Engineering L.L.C.

Sheets 1 through 8 with the following revision dates:

Sheet	Revision Date
1-6, Sheets 1 & 2 of E&S Plans	1/5/06

26) All work is priced to be completed at one time.

27) Pricing valid for 30 days.

IRREVOCABLE LETTER OF CREDIT

_____, 2006

North Manheim Township Authority
303 Manheim Road
Pottsville, PA 17901

Re: Performance Security for Construction of Sewage Collection System for "The Villas at Sunnyside" Planned Community

Gentlemen:

We are advised that North Manheim Township, by its Board of Supervisors, (the "Township") has, in accordance with the requirements of the North Manheim Township Subdivision and Land Development Ordinance (the "Ordinance"), approved a development plan entitled "The Villas at Sunnyside", prepared by Lehigh Engineering, LLC, Consulting Engineers (the "Plan") and submitted by Continental Construction & Developing Co. (the "Developer"). We are further advised that the Plan provides for the development of 9.396 acres of land located in the Township (the "Land") into a residential planned community containing fifty-one (51) attached single family dwelling units (the "Development") in accordance with the requirements of the Ordinance and the Pennsylvania Uniform Planned Community Act, 68 Purdon's Pennsylvania Consolidated 5601 et seq. as amended (the "Planned Community Act"). We are further advised that the Plan has been recorded in Map Book ____ at page _____ in the Schuylkill County Recorder of Deeds Office (the "Recorder's Office").

We are further advised that the Plan provides for the installation of certain roadways and other improvements shown on the Plan on the premises, including roadways and certain other improvements to be installed in the Development (the "Improvements"). We are further advised that the Improvements include a sanitary sewage collection system (the "Sewer System") and that the Developer has guaranteed the completion and maintenance of the Sewer System in accordance with the terms of a Sewer System Construction and Acquisition Agreement dated _____, 2006, (the "Sewer System Agreement") between the Developer and the North Manheim Township Municipal Authority (the "Authority").

We are further advised that under the terms of the Sewer System Agreement, the Developer is required to provide security for the construction and installation of the Sewer System. We are further advised that the amounts of the security which the Developer is required to provide is One Hundred Seventy Thousand Seven Hundred Eighty-Eight Dollars and Twenty ($170,788.20) Cents (the "Developer's Obligation"), representing ____% of the

cost of the Sewer System. We are further advised that the Authority has agreed to accept, as security for the Developer's Obligation under the Sewer System Agreement, this Irrevocable Reducing Letter of Credit (the "Letter of Credit") issued by _____ (the "Bank") in an amount equal to the Developer's Obligation.

In reliance on the foregoing advice, we hereby establish, at the request and for the account of the Developer, in favor of the Authority, our Irrevocable Letter of Credit No. _____in the amount of $_____(the Bank's Obligation"). This Letter of Credit is effective immediately.

This amount is available against presentation of your draft drawn at sight on the Bank accompanied by the following:

1. The original Letter of Credit;

2. A Resolution of the Authority, certified by the Authority Secretary, to be true and correct:

(a) declaring the Sewer System not to have been completed in accordance with the Sewer System Agreement and to have deficiencies which, following notice to the Developer, have not been performed or corrected by the Developer, and demanding payment under the Letter of Credit as and when required for the purpose of fulfilling the Developer's Obligation; and

(b) agreeing to refund to the Bank any sum not expended for actual direct expense in completing the Sewer System in accordance with the Sewer System Agreement on behalf of the Developer as a result of a draft under the Letter of Credit.

This Letter of Credit is subject to the following special conditions:

1. This Letter of Credit shall expire on the earlier of _____, 2007 (the "Expiration Date"), or the date when (a) the Sewer System has been certified to the Bank and the Authority by the Authority Engineer to have been installed in accordance with the Sewer System Agreement. Provided, however, that the expiration date of this Letter of Credit shall be automatically extended for an additional one (1) year period beginning with the Expiration Date and upon each anniversary of such Expiration Date, unless the Bank notifies the Authority by letter addressed to the Authority at the above address, not less than thirty (30) days prior to such anniversary date, that the Bank elects not to renew this Letter of Credit.

2. This Letter of Credit is not assignable.

3. The Bank will give notice to the Developer and the Authority within ten (10) days of receipt by the Bank of any notice from any regulatory agency having jurisdiction over the Bank alleging; (1) the insolvency or bankruptcy of the Bank; or (2) any violations of regulatory requirements applicable to the Bank and that as a result of such violations, suspension or revocation of the Bank's charter if under consideration by such regulatory agency.

4. We engage with you that all drafts drawn under and in compliance with the terms of the Letter of Credit will be duly honored

upon delivery of documents as specified above, if presented to the Bank on or before the date on which the Letter of Credit shall expire.

5. Drafts under this Letter of Credit must contain the clause "Drawn under Letter of Credit No. _____ of _____, dated _____, 2006.

6. Except so far as otherwise expressly stated, the Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision, International Chamber of Commerce Publication No. 500), including amendments and successor publications, and the Uniform Commercial Code of Pennsylvania, 13 P.S. 5105 et seq. and other-wise shall be interpreted under the laws of the Commonwealth of Pennsylvania.

Very truly yours,

_____

BY: _____

NMTA, CBA, and Manheim Development Associates Agreement to Accept Dedication of Sewer System and Lines and Provide Sewage Service, 09/07/17

AGREEMENT TO ACCEPT DEDICATION
OF SEWER SYSTEM AND LINES AND PROVIDE SEWAGE SERVICE

THIS AGREEMENT TO ACCEPT DEDICATION OF SEWER SYSTEM AND LINES AND PROVIDE SEWAGE SERVICE (hereinafter referred to as "Agreement") made this 7th day of September, 2017, by and between the **NORTH MANHEIM TOWNSHIP AUTHORITY**, a municipal authority created under the Pennsylvania Municipal Authorities Act of 1945, with an office or principal place of business located at 303 Manheim Road, Pottsville Schuylkill County, Pennsylvania 17901 (hereinafter "NMTA"), and **CRESSONA BOROUGH AUTHORITY**, a municipal authority, created under the Pennsylvania Municipal Authorities Act of 1945 with an office or principal place of business located at 58 S. Sillyman Street, Cressona, Schuylkill County, Pennsylvania 17929 (hereinafter "CBA") and **MANHEIM DEVELOPMENT ASSOCIATES**, a Pennsylvania general partnership with a mailing address of P.O. Box E, Minersville, Schuylkill County, Pennsylvania 17954 (hereinafter "Manheim") and **ALDI, INC. (PENNSYLVANIA)**, a corporation authorized to do business in the Commonwealth of Pennsylvania with an office at 2700 Saucon Valley Road, Center Valley, Pennsylvania 18034 (hereinafter "Aldi"), and **SEVEN HILLS HOSPITALITY, INC.**, a corporation authorized to do business in the Commonwealth of Pennsylvania with a mailing address of 1476 Route 61 Highway South, Pottsville, Schuylkill County, Pennsylvania 17901 (hereinafter "Seven Hills"), and **THE 562 TERMINAL FACILITY LIMITED PARTNERSHIP**, a limited partnership authorized to do business in the Commonwealth of Pennsylvania with a mailing address of 1368 Partridge Place North, Boynton Beach, Florida 33436 (hereinafter "562").

WITNESSETH:

WHEREAS, Manheim is the owner of land situate in the Township of North Manheim, Schuylkill County, Pennsylvania, such land being commonly known as "Rockwood Center" and more particularly described on Exhibit "A", attached hereto and incorporated herein by reference; and

WHEREAS, Seven Hills, successor to C.B.S.S., Inc. is the owner of land situated in North Manheim Township, such land being commonly known as the "River Inn" and being a portion of the land more particularly described on Exhibit "B", attached hereto and incorporated herein by reference; and

WHEREAS, pursuant to a Sewer System Acquisition Agreement, dated September 16, 1993 ("SSA Agreement"), Manheim and C.B.S.S., Inc., predecessor to Seven Hills and Aldi, designed and constructed a sewer system consisting of, but not limited to, gravity sewers, submersible pump station, force main, emergency generator and appurtenances, together with easements and rights-of-way located on real estate now owned by Manheim, Aldi, and Seven Hills, all of which is referred to as the "Sewer System", which would serve not only their properties but properties to the north of Seven Hills' property. The sewage from said Sewer System would be treated by CBA and the property owners using said Sewer System would be billed directly by CBA. The permittee of the pump station, force main, sewers and the related appurtenances currently is NMTA. Pursuant to the SSA Agreement, NMTA was to accept dedication of part of the Sewer System, including, but not limited to, the pump station, force main and appurtenances, but to this date MNTA has not yet accepted dedication; and

WHEREAS, Aldi purchased a properly subdivided portion of the property set forth in Exhibit "B" from Seven Hills' predecessor to operate a grocery store and connected to the subject Sewer System. The Aldi property is described on Exhibit "L". The properties owned by Aldi and Seven Hills comprise the property described in Exhibit "B"; and

WHEREAS, 562 owns a property located to the north of Manheim, Aldi and Seven Hills and desires to connect to the Sewer System and have its sewage treated by CBA for itself and its successors and assigns. 562 is willing to pay for certain repairs to the Sewer System so that CBA can accept dedication of the Sewer System; and

WHEREAS, NMTA has no objection to, and CBA, Manheim, Aldi and Seven Hills are willing to permit, 562 to connect to the Sewer System for use on terms and conditions provided for in separate agreements; and

WHEREAS, in view of NMTA having never accepted dedication of the Sewer System pursuant to the SSA Agreement, CBA has indicated a willingness to accept dedication of the Sewer System, as long as certain repairs have been made to the Sewer System, and pump station and CBA acquires certain sewer lines and necessary easements from the Cressona Mall, an intervening property owner through whose present lines the various private parties to this agreement convey their sewage to the treatment facilities of CBA, pursuant to separate agreements with the Cressona Mall and, in that regard, NMTA has indicated its willingness to terminate the SSA Agreement in order to be relieved of all obligations thereunder, and to permanently relinquish jurisdiction NMTA may have with respect to the Sewer System to CBA; and

WHEREAS, CBA will continue to accept sewage from the Sewer System and treat the same and directly bill the customers using the Sewer System now and in the future; and

WHEREAS, NMTA has no objection to CBA accepting dedication of the Sewer System and to treat the sewage and bill all customers connected to the Sewer System.

NOW, THEREFORE, in consideration of the mutual promises, terms and undertakings set forth herein and with the intent to be legally bound, the parties covenant and agree as follows:

1. The recitals set forth hereinabove are incorporated herein by reference.

2. Repair to the Sewer System. CBA's engineer has set forth certain repairs necessary to the Sewer System before CBA would accept dedication. These repairs are set forth in Exhibit "C" attached hereto and incorporated herein by reference. 562 will perform and pay the cost to perform the repairs set forth in Exhibit "C". Pursuant to a separate agreement, each of the parties hereto shall grant 562 and its contractors, engineers, etc. the right to enter the others' property, as necessary, to repair and maintain the Sewer System and shall grant to CBA the right to enter upon the property for the purposes of inspection. When performing construction, repair and/or maintenance to the Sewer System at or near Manheim Development's property, 562 will order and require its contractors to stay on the west side of the roadway so not to interfere with it or with the parking lot on the east side thereof. 562 will further obtain certificates of insurance from the contractor that provide liability and damage coverage for NMTA, Manheim, Seven Hills and Aldi if any damage would occur and as otherwise may be required by a separate agreement. 562 shall indemnify and hold harmless NMTA, Manheim, Seven Hills and Aldi and its directors, officers and employees from and against all third-party claims, actions, suits, demands, damages,

obligations, losses, settlements, judgments, costs and expenses (including without limitation reasonable attorney's and engineering fees and costs) which arise out of or relate to (1) death or bodily injury; or (2) loss of or damage to real property resulting from any negligent act or willful misconduct of the contractor except to the extent that such losses result from, in whole or in part, (a) the negligence, unlawful or wrongful acts of Manheim, Seven Hills or Aldi or any other party acting in concert with them. This indemnification shall not modify, reduce or limit any other indemnification provision contained in a separate agreement.

3. Dedication. NMTA agrees to perpetually relinquish any ownership or jurisdiction it may have of the Sewer System to CBA and terminate the SSA Agreement, upon completion of the repairs set forth in Exhibit "C" and receipt of necessary governmental approvals which includes a waiver of final subdivision approval from North Manheim Township, Manheim, Seven Hills, Aldi and 562 shall, for One ($1.00) Dollar, convey, transfer and dedicate the Sewer System, together with all necessary easements and rights-of-ways, including an easement for access to the Sewer System to CBA which CBA agrees to accept. Such transfer to CBA shall be by Deed of Dedication with respect to the real estate on which the pumping station is constructed, as well as the real estate on which the emergency generator is located, by Bill of Sale with respect to the tangible personal property making up the Sewer System, and such other legal documents as are necessary and proper in order to effectuate the transfer of ownership of the Sewer System to CBA. The parties hereto agree to assign and CBA will receive, by transfer and/or assignment, all necessary easements for access to the Sewer System including, but not limited to:

(a) Deed of Sanitary Sewer Easement dated June 21, 1991, attached hereto as Exhibit "D";

(b) Easement dated February 27, 1995 between Manheim Development Associates and C.B.S.S., Inc., attached hereto as Exhibit "E";

(c) Easement dated February 27, 1995 between Manheim Development Associates and North Manheim Township Authority, attached hereto as Exhibit "F";

(d) Easement dated February 27, 1995 between Manheim Development Associates and North Manheim Township Authority, attached hereto as Exhibit "G";

(e) Easement dated February 27, 1995 between C.B.S.S., Inc. and North Manheim Township Authority, attached hereto as Exhibit "H";

(f) Easement dated December 15, 2015 between Joseph E. Gnidzinski and The 562 Terminal Facility Limited Partnership, attached hereto as Exhibit "I";

(g) Easement Agreement dated August 16, 2016 between Seven Hills Hospitality, Inc., and The 562 Terminal Facility Limited Partnership, attached hereto as Exhibit "J"; and

(h) The Sewer System being dedicated and transferred is set forth on the maps attached hereto as Exhibit "K".

Thereafter, CBA shall be responsible for all future maintenance and repairs to the Sewer System. CBA will bill directly Manheim, Seven Hills, Aldi, 562 and any other property that connects to the Sewer System along with their successors and assigns, its normal and customary rates for service properly established from time to time. NMTA specifically agrees to permit CBA to accept dedication of the Sewer System and bill the customers directly for service. The acceptance of the deed by CBA will occur within sixty (60) days after the completion of the repairs referenced above, DEP approval and fulfillment of all other conditions in this agreement. 562 will prepare the Deed and obtain the requested signatures on the Deed.

4. No Tapping Fees - Reimbursement. In consideration for the expenses incurred by Manheim, Aldi and 562, CBA agrees not to charge any tapping fee or hook up fee to Manheim, Seven Hills or Aldi for existing hookups. NMTA has no ability to charge a tapping fee for connections to the Sewer System and has no objection if CBA desires to collect a tapping fee from any party not specifically excluded herein who connects to or are already connected to the Sewer System.

5. Reservation of Capacity. CBA specifically represents to NMTA that for ten (10) years from the date CBA accepts dedication of the sewer system it will reserve Seven Thousand Five Hundred (7,500) gallons per day (hereinafter "GPD") at its plant for future connections for customers who reside in North Manheim Township and who may connect to the Sewer System including any users from the 562 Property but not including the other parties to this Agreement. The sewage flows from the 562 Property shall be included in the NMTA Capacity. At the end of this ten (10) year term, NMTA may request an extension of the reserve capacity for an additional agreed upon term which shall not be unreasonably or arbitrarily denied.

6. Additional Easement. 562 and its successors and assigns agree to provide an additional easement on the Property of 562 to CBA and NMTA to install a sewer line which may be used for future connections for customers in North Manheim Township. This easement shall be situated at a location mutually agreed to by 562 and NMTA which will not materially impair current and future use of the owners of the 562 Property, their successors and assigns pursuant to a land development plan submitted by 562 and Sands car dealership. The sewer line in the Easement shall be constructed in accordance with specifications approved by CBA and shall be accepted by CBA into the Sewer System upon completion of construction.

7. Permittee. NMTA agrees to relinquish and transfer the permit for said Sewer System to CBA upon acceptance by CBA of the system repairs set forth in Exhibit "C" and concurrence with PADEP. The transfer process shall begin within thirty (30) days after final inspection and approval by CBA or approval by PADEP whichever later occurs. CBA will then become the owner and permittee of the Sewer System. NMTA will begin the paperwork to obtain the transfer as soon as it is notified the repairs are completed.

8. Modification and Supersede. At the time CBA formally accepts dedication of the sewer system following completion of the conditions herein, this Agreement terminates, supersedes, replaces and extinguishes the Sewer System Acquisition Agreement dated September 16, 1993. CBA agrees this Agreement hereby terminates any ownership or responsibility and obligations of NMTA or North Manheim Township pursuant to the Agreement of February 28, 1973 between CBA, the Borough of Cressona and Cressona Plaza, Inc.

9. Enforcement. The terms and conditions of this Agreement may be enforced by any party by filing a lawsuit in the Court of Common Pleas of Schuylkill County. Further, the prevailing party shall be entitled to attorney's fees and costs from the non-prevailing party.

10. Binding on Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties.

11. At the time CBA formally accepts dedication of the sewer system following completion of the conditions herein, the parties hereto release NMTA and North Manheim Township from any and all costs, expenses, claims, rights or obligations that may arise out of or result from any and all involvement of NMTA and/or North Manheim Township in the SSA

Agreement or the Sewer System. At the time CBA formally accepts dedication of the Sewer System following completion of the conditions herein, NMTA and North Manheim Township will also release Manheim, Aldi, Seven Hills and 562 from any and all costs, expenses, claims, rights or obligations that existed or are related to in any way relating to the SSA Agreement or Sewer System before the date of dedication.

12. CBA acknowledges and agrees that neither NMTA nor North Manheim Township shall have any ownership in nor any responsibility for the Sewer System, any permits or licenses related thereto, the sanitary sewer lines in North Manheim Township to the east of the SAPA facility or the sanitary sewer lines connecting Property ID 18-08-01483001, 18-08-0148.004 or 18-08-0148.002 to the Sewer System or the CBA Sewer System.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed and enforceable the day and year first written above.

NORTH MANHEIM TOWNSHIP AUTHORITY

ATTEST:

By: _____

CRESSONA BOROUGH AUTHORITY

ATTEST:

By: _____

MANHEIM DEVELOPMENT ASSOCIATES

ATTEST:

By: _____

ATTEST:

ALDI, INC. (PENNSYLVANIA)

By:

ATTEST:

SEVEN HILLS HOSPITALITY, INC.

By:

ATTEST:

THE 562 TERMINAL FACILITY LIMITED PARTNERSHIP

By:

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF SCHUYLKILL :

On this, the 19th day of September, 2017, before me, a Notary Public in and for said County and State, personally appeared DAVID TETER who acknowledges himself to be the Chairman of NORTH MANHEIM TOWNSHIP AUTHORITY, a municipal authority created under the Pennsylvania Municipality Authorities Act of 1945, and that he, as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the municipal authority by himself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Tami M. Stump

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Tami M. Stump, Notary Public
Wayne Twp., Schuylkill County
My Commission Expires Oct. 13, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF SCHUYLKILL :

On this, the 7TH day of SEPTEMBER, 2017, before me, a Notary Public in and for said County and State, personally appeared JERRY R. FARRO who acknowledges himself to be the CHAIRMAN of CRESSONA BOROUGH AUTHORITY, a municipal authority created under the Pennsylvania Municipality Authorities Act of 1945, and that he, as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the municipal authority by himself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Gail M. Buffington

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Gail M. Buffington, Notary Public
Cressona Boro, Schuylkill County
My Commission Expires March 1, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF SCHUYLKILL :

On this, the 10th day of October, 2017, before me, a Notary Public in and for said County and State, personally appeared RONALD T. DERENZO who acknowledges himself to be a Partner of MANHEIM DEVELOPMENT ASSOCIATES, a Pennsylvania general partnership, and that he, as such Partner, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the general partnership by himself as such Partner.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

NOTARIAL SEAL
JOSEPH G. ZERBE, NOTARY PUBLIC
CITY OF POTTSVILLE, SCHUYLKILL COUNTY
MY COMMISSION EXPIRES FEBRUARY 13, 2018

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF Lehigh :

On this, the 2nd day of October, 2017, before me, a Notary Public in and for said County and State, personally appeared BOB GRAMMER who acknowledges himself to be the Vice President of ALDI, INC. (PENNSYLVANIA), a corporation, and that he, as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Melissa J. Yenkevich, Notary Public
Upper Saucon Twp., Lehigh County
My Commission Expires Sept. 18, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF SCHUYLKILL :

On this, the _____ day of _____, 2017, before me, a Notary Public in and for said County and State, personally appeared _____ who acknowledges himself to be the _____ of SEVEN HILLS HOSPITALITY, INC., a corporation, and that he, as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF SCHUYLKILL :

On this, the 11th day of October, 2017, before me, a Notary Public in and for said County and State, personally appeared ALBERT L EVANS JR who acknowledges himself to be a Partner of THE 562 TERMINAL FACILITY LIMITED PARTNERSHIP, a Pennsylvania limited partnership, and that he, as such Partner, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the limited partnership by himself as such Partner.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Crystal M Lehr

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Crystal M. Lehr, Notary Public
City of Pottsville, Schuylkill County
My Commission Expires April 18, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

- NMT, NMTA, CBA and XAR Developers, Inc. Agreement, 05/29/1990

AGREEMENT

THIS AGREEMENT made this 29th day of MAY, 1990, by and among XAR DEVELOPERS, INC., a corporation organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at Pottsville, Schuylkill County, Pennsylvania, and having a mailing address of P.O. Box 600, Pottsville, Pennsylvania 17901 ("Owner"), CRESSONA BOROUGH AUTHORITY, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at Cressona, Schuylkill County, Pennsylvania 17929 ("Cressona Authority"), NORTH MANHEIM TOWNSHIP, a municipality and political subdivision of the Commonwealth of Pennsylvania having its principal office located at R.D. #4, Box 4453A, Pottsville, Schuylkill County, Pennsylvania 17901 ("Township"), and NORTH MANHEIM TOWNSHIP AUTHORITY, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania having its principal office located at R.D. #4, Box 4453A, Pottsville, Schuylkill County, Pennsylvania 17901 ("Township Authority").

Factual Narrative

The Owner intends to erect a residential housing project consisting of a maximum of two hundred fifty (250) residential units with a maximum anticipated sewage flow of 87,500 gallons per day (250 e.d.u. @ 350 gallons per day) on a parcel of land in North Manheim Township, Schuylkill County, Pennsylvania, the description of which is attached hereto and made a part hereof and marked Exhibit "A". The Cressona Authority operates the sewage facility plant and collection system in Cressona and adjacent areas.

The Owner, Cressona Authority, Township Authority and Township desire to enter into this Agreement for the Cressona Authority to provide sewer service to the Owner for the housing project to be erected on the parcel of land described in Exhibit "A" hereof until such time as the Township Authority or the Township constructs or acquires its own sewage collection and treatment system to service said parcel of land.

Owner will have its proposed residential housing project located in North Manheim Township, but wishes to connect its sewage system to that of the Cressona Authority, and various agreements have been entered into which the parties wish to reduce to writing.

NOW, THEREFORE, in consideration of the mutual promises contained herein and in consideration of the foregoing Factual Narrative, the provisions of which are incorporated herein by reference, and with intent to be legally bound, the parties hereby agree as follows:

1. The Township and the Township Authority hereby agree that the Owner may connect a sewage collection system to be constructed by the Owner in the said residential housing project to the collection system of the Cressona Authority. It is understood that both the installation of the collection system within the said residential housing project and the connection of said collection system to the collection system of the Cressona Authority shall be done at no expense to the Cressona Authority or the Township or the Township Authority. The installation and connection of the system to that of the Cressona Authority shall be supervised by the Cressona Authority. The Township Authority shall also have the right, but not the duty, of inspection and approval of the construction and connection of the system.

2. The Township, Township Authority and Cressona Authority agree that the Owner may connect its sewage collection system to the collection system of the Cressona Authority under the existing or special provisions, rules, and regulations made for this particular connection. The Cressona Authority shall inspect and approve this connection.

3. Owner agrees to pay One Hundred Twenty-Five Thousand ($125,000.00) Dollars to Cressona Authority to assist Cressona Authority with the construction of additional capacity at its sewage treatment plant. Therefore, at the time of signing this Agreement, the Owner shall provide to Cressona Authority, in form acceptable to Cressona Authority, a letter of credit of One Hundred Twenty-Five Thousand ($125,000.00) Dollars, which sum may be drawn upon by the Cressona Authority. This letter of credit is provided in lieu of Owner depositing One Hundred Twenty-Five Thousand ($125,000.00) Dollars in cash with Cressona Authority, and Owner agrees that Cressona Authority may obtain payment of the total amount of One Hundred Twenty-Five Thousand ($125,000.00) Dollars, pursuant to the terms of the letter of credit if the Owner fails to pay said One Hundred Twenty-Five Thousand ($125,000.00) Dollars or any part thereof upon demand by Cressona Authority. Any sum paid to Cressona Authority is not refundable. The Owner shall receive credit for such payment at the rate of one-half (1/2) the tapping fee charged and collected for each hookup to the sewage collection system in the Owner's residential housing project.

4. The Cressona Authority, Township Authority, and the Owner hereby agree to the following terms and conditions:

(a) Upon connection of the Owner's residential housing project to the Cressona Authority system the Cressona Authority shall bill directly the owners of any structures erected on the Owner's parcel of land in North Manheim Township at the current rates for the sewage collection and treatment services provided by the Cressona Authority until such time as the Township Authority installs or acquires its own system.

(b) The Owner further agrees that Owner and the owners of residences serviced by the system shall be responsible for payment of all tapping fees levied by the Cressona Authority and the sewage service rates of the Cressona Authority.

(c) Owner shall construct at its expense the sewage collection system for said residential housing project and shall connect said system to the Cressona Authority system in accordance with plans and complete technical specification approved by Cressona Authority and any other appropriate governmental agency. The Owner shall be responsible for preparation of all construction documents and related data and obtaining approval from the appropriate governmental agencies required for the sewage system and connection. The design and construction of the system and connection shall be inspected and approved by the Cressona Authority, as well as the Township Authority, if it so elects.

(d) The parties acknowledge that the Township Authority and the Cressona Authority have entered into good faith negotiations related to the provision of sewage capacity by the Cressona Authority to the Township Authority in order to provide sewage collection and treatment within the Township. The negotiations may include discussions related to the acquisition by the Township Authority of all or a portion of the sewage collection system to be constructed by the Owner. In the event that the Township Authority (or its successor or assign) acquires all or any portion of the sewage collection system to be constructed by the Owner, and the Owner's said property is subject to a mandatory connection ordinance of the Township and/or Township Authority ("Township Acquisition"), the parties agree that the terms and provisions of this Agreement shall remain in full force and effect except that those terms and provisions applicable to the Cressona Authority shall then be applicable to the Township Authority. Nothing contained in this subparagraph, however, should be construed to modify, amend or disturb the provisions of Paragraphs 3, 4(g) or 4(j) of this Agreement, which provisions shall remain in full force and effect regardless of Township Acquisition. Furthermore, the Owner, the Township and the Township Authority, for themselves, their successors and assigns, hereby consent to any grants, loans or other forms of financing incurred by or on behalf of the Cressona Authority relating to improvements to the Cressona Authority sewage collection and treatment system and further agree that whatever right, title and interest they may have in the sewage collection system to be constructed by the Owner and the revenues generated by the Cressona Authority in relation thereto shall be and the same are hereby made subject and subordinate to the interest therein, if any, of the maker or makers of such grants, loans, or other forms of financing. Nothing in this subparagraph should be construed to prevent the Township Authority from establishing legally enforceable charges for services in conjunction with its operations.

Note

(e) In the event that Township Acquisition fails to occur, the Owner shall remain connected to the Cressona Authority sewer system. In this event, the Cressona Authority shall agree that the sewage flow from the Owner's property shall not be included in the Township Authority's total sewage flow for purposes of reporting and capacity limitations, and the Cressona Authority shall continue its direct billing for sewage service, and the Owner or property owner shall be subject to the rates of the Cressona Authority as shall be determined and amended from time to time by the Cressona Authority.

Note

(f) Upon approval of the construction of the system and connection to the Cressona Authority system, the Cressona Authority shall make minor repairs and perform routine maintenance of the system within the said residential housing project provided that the Owner shall provide a maintenance bond for a period of two (2) years after approval of the system and connection.

(g) Owner shall pay to the Cressona Authority the costs of inspection of the sewage collection system at a rate not to exceed One Thousand ($1,000.00) Dollars per forty (40) hour week for each week or Twenty-Five ($25.00) Dollars per hour when personnel of the Cressona Authority are employed in the inspection of the construction and connection of said sewage collection system. Owner shall, upon execution of this Agreement, deposit with the Cressona Authority the sum of Four Thousand ($4,000.00) Dollars toward the cost of said inspection. Said deposit shall be held in escrow until the sewage collection system is fully constructed, installed, connected and approved by the Cressona Authority, at which time said sum shall be returned to Owner with any interest that may have accrued on said escrow account, provided that the Cressona Authority has been paid from said sum that amount owed by the Owner to Cressona Authority for services. In the event that the Township Authority shall elect to inspect the construction and connection of the sewage collection system, the Township Authority shall be entitled to bill the Owner weekly for the cost to the Township Authority of the personnel utilized in the inspection process, subject to the provisions of Paragraph 4(j).

(h) Owner agrees to pay or cause to be paid the then current tapping fees established by the Cressona Authority and the Township Authority (but only under the circumstances set forth in Paragraph 4(d)) subject to the provisions of Paragraph 3, for the connection of any structure to be erected within said residential housing project to the sewage collection system prior to the connection and to obtain approval of all such applications for service.

(i) All construction of sewer lines, manholes or related appurtenances, including any connections or tapping of any nature which occurs within the residential housing project shall be subject to the then current rates, rules, and regulations of the Cressona Authority and the Township Authority (but only under the circumstances set forth in Paragraph 4(d)) and in accordance with the plans and specifications approved by both Authorities, which shall include, but not be limited to materials, methods of installation, excavation and backfill, complete infiltration, exfiltration and alignment testing procedures and maintenance of the construction until the system is approved and accepted by the Cressona Authority, including the right of inspection and the testing of lines before hookup, the cost of which will be reimbursed to the Cressona Authority and/or the Township Authority, as the case may be, by the Owner.

(j) Owner agrees to pay legal and engineering fees incurred by the Cressona Authority in the review and preparation of this Agreement, not to exceed a total payment of Five Thousand ($5,000.00) Dollars. Owner further agrees to pay legal and engineering fees incurred by the Township Authority in the review and preparation of this Agreement and for all

inspections pursuant to this Agreement, not to exceed Two Thousand ($2,000.00) Dollars.

(k) It shall be the affirmative obligation of the Owner to place in each deed of conveyance for lots within Owner's parcel of land, to third persons, a deed restriction in substantially the form set forth in Exhibit "B", attached hereto and made a part hereof, which restriction shall permit the Cressona Authority to inter alia levy upon the land in the same manner and in accordance with the statutes of the Commonwealth of Pennsylvania providing for the filing of liens for the collection of municipal claims.

(l) The Owner agrees to transfer the system to Cressona Authority two (2) years after approval of the construction and connection of the system or any part thereof. The transfer and connection of the system shall take place within thirty (30) days after said date. The Owner agrees to provide easements that may be necessary for ingress and egress to said system for the location, maintenance, repair, rehabilitation, and reconstruction of said lines and agrees to execute all appropriate documents to achieve this purpose.

(m) The operation and maintenance of said system shall be in accordance with the rules and regulations of the Cressona Authority as amended, and/or the Township Authority (but only under the circumstances set forth in Paragraph 4(d)).

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

XAR DEVELOPERS, INC.

ATTEST: _____ BY: _____

CRESSONA BOROUGH AUTHORITY

ATTEST: Robert C. Potts BY: Kay S. Reed

NORTH MANHEIM TOWNSHIP

ATTEST: Barbara D. Miller BY: _____

NORTH MANHEIM TOWNSHIP AUTHORITY

ATTEST:

BY:

Greater Pottsville Area Sewer Authority Inter-Municipal Sewage Agreement, 05/17/1994

INTER-MUNICIPAL SEWAGE AGREEMENT

THIS INTER-MUNICIPAL SEWAGE AGREEMENT (the "Agreement") made this 17 day of MAY, 1994, by and among NORTH MANHEIM TOWNSHIP AUTHORITY, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Authority"), TOWNSHIP OF NORTH MANHEIM, a political subdivision of the Commonwealth of Pennsylvania with an office or principal place of business located at North Manheim Township Municipal Building, R.D. #4, Box 4453-A, Pottsville, Schuylkill County, Pennsylvania ("Township"), and GREATER POTTSVILLE AREA SEWER AUTHORITY, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania with an office or principal place of business located at 401 North Centre Street, P.O. Box 1163, Pottsville, Schuylkill County, Pennsylvania 17901 ("GPASA").

Background

GPASA currently operates a system for collecting, transporting and treating sewage. By letter dated April 7, 1993 from DER to GPASA, DER provided GPASA with an additional allocation of 24 Equivalent Dwelling Units which "may only be used for satisfying the wastewater connection needs of the Mount Carbon area of North Manheim Township as specified in the recently approved North Manheim Township Act 537 Special Study." By Connection Ordinance or Ordinances of the North Manheim Township Board of Supervisors, the Authority will from time to time be vested with jurisdiction over the collection, transportation and treatment of sewage originating in various specified areas located within the Township. The parties are entering into this Agreement for the purpose of establishing the terms and conditions under which GPASA will transport and treat the sewage from residences listed herein.

NOW, THEREFORE, in consideration of the mutual promises contained herein an with intent to be legally bound, the parties hereby agree as follows:

1. Definitions. The following words and phrases when used in this Agreement shall have the meanings ascribed to them in this section unless the context clearly indicates a different meaning:

01/06/95 16:07 717 622 0798 CD&W P.C. SYSTEMS DESIGN 002/016
717 622 0798

1.1 "Authorities Act" shall mean the Municipality Authorities Act of 1945, Act of May 2, 1945, P.L. 382, 53 P.S. §302 et seq., as amended and supplemented.

1.2 "Authority" shall mean the North Manheim Township Authority, acting by and through its Board or, in appropriate cases, acting by or through its authorized representative(s).

1.3 "Authority Charge" shall have the meaning ascribed thereto in Section 3.4 hereof.

1.4 "Commonwealth" shall mean the Commonwealth of Pennsylvania.

1.5 "Connection Ordinance" shall mean the ordinance enacted by the Township, inter alia, compelling all Owners of Improved Property whose principal building is accessible to the Sewer System of the Authority, to connect to such Sewer System of the Authority and use the same in such manner as the Township may ordain.

1.6 "Customer of the Authority" shall mean any Owner whose property is or may from time to time be connected to the Sewage System of the Authority.

1.7 "DER" shall mean the Department of Environmental Resources of the Commonwealth.

1.8 "DER Wastewater Allocation" shall mean the additional allocation from DER to GPASA of twenty-four (24) EDUs to be used exclusively for satisfying the Sewage connection needs of the Township in the Mount Carbon area, as more specifically set forth in the letter from DER to GPASA, dated April 7, 1993, marked Schedule 1.8, attached hereto and incorporated herein by reference.

1.9 "Domestic Sewage" shall mean all Sewage other than Industrial Wastes.

1.10 "Dwelling Unit" shall mean any room, group of rooms, house trailer, apartment, condominium, cooperative or other enclosure connected, directly or indirectly to the Sewer System of the Authority and occupied or intended for occupancy as living quarters by an individual, a single family or other discrete group of persons, excluding institutional dormitories.

1.11 "EDU" shall mean an Equivalent Dwelling Unit.

01/06/95 16:08 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN ☑003/016
717 622 0798

1.12 "EPA" shall mean the Environmental Protection Agency of the United States of America.

1.13 "Equivalent Dwelling Unit" shall mean not in excess of 262.5 gallons per day originating from an Improved Property.

1.14 "Improved Property" shall mean any property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings and from which structure Domestic Sewage shall be or may be discharged, which is located within the Sewered Area and subject to the Connection Ordinance.

1.15 "Industrial Wastes" shall mean any and all Sewage and other liquid wastes discharged from an Industrial Establishment other than Domestic Sewage discharged from such Industrial Establishment.

1.16 "Owner" shall mean any Person vested with title, legal or equitable, sole or partial, of any Improved Property.

1.17 "Permit Fee" shall have the meaning ascribed thereto in Section 4.1 hereof.

1.18 "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

1.19 "Service Charge" shall have the meaning ascribed thereto in Section 3.1 hereof.

1.20 "Sewage" shall mean the water-carried wastes from single and multi-family residences, business buildings, institutions and industrial establishments.

1.21 "Sewage System of GPASA" shall include all facilities owned and/or operated for collecting, transporting and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation the Sewage Treatment Plant and excluding the Sewage System of the Authority.

1.22 "Sewage System of the Authority" shall include all facilities of the Authority now or hereafter located in the Township immediately adjacent to the Borough of Mount Carbon, for the purpose of transporting Sewage to the Sewage System of GPASA.

01/06/95 16:08 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN 004/016
717 622 0798

1.23 "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by GPASA for treating and disposing of sewage, presently existing and all future improvements and additions thereto.

1.24 "Sewer Rate" shall have the meaning ascribed thereto in Section 3.4 hereof.

1.25 "Township" shall mean North Manheim Township, Schuylkill County, Pennsylvania, a political subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through its authorized representatives.

1.26 Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Provision of Sewage Service.

2.1 GPASA agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide the Authority, with Sewage treatment and disposal services in the Sewage Treatment Plant for the customers identified on Schedule 2.1, attached hereto and incorporated herein by reference.

2.2 GPASA, herewith grants to the Township and the Authority the right to connect their future Sewage flows identified on Schedule 2.1 and as identified in the DER Wastewater Allocation through the Sewage System of the Authority to the present and any future Sewage System of GPASA for the purpose of discharge and disposal of Sewage either directly or through the sewage transportation system of GPASA. Any further expansion or extension of the Sewage System of the Authority, consisting of one (1) or more connections in addition to the DER Wastewater Allocation and as reflected in Schedule 2.1, shall be subject to the written approval of GPASA and DER.

2.3 Township and Authority agree that they will take all reasonable efforts to insure that (i) the Sewage passing through their respective Sewage Systems shall not contain storm water, roof or surface drainage and (ii) downspouts, yard drains, springs, septic tanks, cesspools, holding tanks or any other run-off water will not be connected to or enter into their respective Sewer Systems. Further, Township and Authority shall make all reasonable

01/06/95 16:09 ☎717 622 0798 CD&W P.C. ←→ SYSTEMS DESIGN 005/016
717 622 0798

efforts to prohibit the entrance into the Sewage System of the Authority of all Industrial Wastes, chemicals, and other matter as defined in this Agreement. GPASA and the Authority shall be able to take samples and make analysis of such samples at anytime.

3. Sewer Rates.

3.1 The Authority shall pay GPASA for the rights, privileges, and benefits hereunder, a service charge per EDU calculated on a flat quarterly basis and paid on a quarterly basis (the "Service Charge") in accordance with the provisions of this Section 3.

3.2 At least thirty (30) days prior to the Authority commencing service hereunder and each calendar quarter thereafter (if the information has changed from the last such certification), the Authority shall certify to GPASA the Owner, location and apparent use of each Improved Property served by the Sewage System of the Authority on such date. On each such certificate, the Authority shall also include the number of EDU's by which each Improved Property shall be classified.

3.3 The current Service Charge shall be $46.50 quarterly and thereafter GPASA may increase the Service Charge upon notice to the Authority at least ten (10) days prior to the first billing for which the increased Service Charge will apply. Notwithstanding anything contained herein to the contrary, the Service Charge shall be equal to the service charge assessed by GPASA to customers of the Sewage System of GPASA.

3.4 GPASA shall be responsible for billing Customers of the Authority on a quarterly basis with the regular quarterly billings of GPASA. Customers of the Authority shall each be billed a single invoice amount (the "Sewer Rate") consisting of (i) the Service Charge, plus (ii) an amount to be determined by the Authority and certified to GPASA from time to time (the "Authority Charge"). Upon receipt of payment from each Customer of the Authority, GPASA shall retain the portion of the payment consisting of the Service Charge and shall remit the balance of the payment consisting of the Authority Charge to the Authority accompanied by a report of the manner of calculation, all of which shall occur as soon as practicable after receipt of payment. If no payment is received from a Customer of the Authority or if a payment is received from a Customer of the Authority in an amount less than the Sewer Rate, the parties shall implement the procedures set forth in Section 3.5 hereof.

01/06/95 16:10 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN 006/016
717 622 0798

3.5 GPASA shall diligently pursue its customary procedures for collection of deficiencies from Customers of the Authority regardless of whether underpayments are sufficient to satisfy the Service Charge. GPASA shall provide the Authority with a quarterly report of deficiencies and the status of GPASA collection efforts. The Authority reserves the right in any event to pursue collection of deficiencies from Customers of the Authority with prior notice to GPASA.

3.6 For purposes of Section 3 hereof, the Authority hereby designates GPASA as collector of the Sewer Rates. In addition to any other remedies available to GPASA and/or the Authority for non-payment of Sewer Charges, the Authority hereby authorizes and empowers GPASA in the name and on behalf of the Authority to utilize the procedures relating to municipal claims pursuant to Chapter 25, Municipal Claims and Tax Liens, of the General Municipal Law, Act of May 16, 1923, P.L. 207, 53 P.S. §7101 et. seq., as amended, for the recovery of Sewer Rates due and unpaid.

4. GPASA Permit Application and Fee.

4.1 The Authority shall pay GPASA a one-time, flat permit fee of Seven Thousand Two Hundred ($7,200.00) Dollars based on twenty-four (24) EDUs at Three Hundred ($300.00) Dollars per EDU (the "Permit Fee"). GPASA shall issue the Authority one (1) permit as a bulk customer for the twenty-four (24) EDUs. Future connections of Owners shall be subject to the prior payment by the Authority to GPASA of the Permit Fee, together with the completed and executed permit application as set forth in Section 4.3 hereof. The Permit Fee shall be paid by the Authority to GPASA prior to connection of the Sewage System of the Authority to the Sewage System of GPASA and the discharge of Sewage from the Township thereto.

4.2 There shall be no fees assessed to or payable by the Authority or its customers or the Township to GPASA other than the Service Charge, the Permit Fee or any customary service charge to Customers of the Authority for work performed at the request of Customers of the Authority on any portion of the lateral or building sewer located on their property.

4.3 Notwithstanding anything to the contrary contained herein, each Customer of the Authority shall complete and execute a sewer permit application on forms provided by GPASA to the

01/06/95 16:11 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN ☑007/016
717 622 0798

Authority for that purpose. The Authority shall provide GPASA with the executed sewer permit application at the time of payment of the Permit Fee for each Customer of the Authority.

5. Operation and Maintenance of Sewage System of the Authority.

5.1 GPASA shall perform routine and preventive maintenance of the Sewage System of the Authority and extend the same service to Authority customers connected to the Sewage System of the Authority as afforded all other customers of GPASA. Ownership of the Sewage System of the Authority shall be and remain with the Authority.

5.2 GPASA may inspect the construction and installation of building and sewer laterals connecting to the Sewage System of the Authority. The Authority shall notify GPASA prior to covering any such building sewers and laterals. All such building sewers and laterals shall be regulated and controlled in accordance with standards adopted jointly by the Authority and GPASA. Owners shall apply to the Authority for permits for connection to the Sewage System of the Authority which application shall show sufficient construction details to enable the Authority and GPASA to determine that such connection will comply with the standards and regulations jointly promulgated hereunder. The Authority shall provide GPASA with copies of all connection permits issued by the Authority to Owners.

6. Miscellaneous.

6.1 Notwithstanding any other provision of this Agreement, no party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of God or riot, sabotage, public calamity, flood, strike, breakdown of the Sewage System of either party hereto, or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

6.2 Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Agreement due to the negligence of such party or its agents or employees.

NMT.PJD\GPASA.PJD\INTER-MU.AGR\3347-25

01/06/95 16:12 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN 008/016
717 622 0798

6.3 Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected; and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein.

6.4 The headings in this Agreement are solely for convenience and shall have no effect in the legal interpretation of any provision hereof.

6.5 This Agreement shall become effective as of the date hereof and shall continue in full force and effect for a term of forty (40) years.

6.6 The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

6.7 In the event of any suit, action or proceeding at law or in equity, by either of the parties hereto against the other by reason of any matter or thing arising out of this Agreement, the prevailing party shall recover not only its legal costs but a reasonable attorney's fee (to be fixed by the Court) for the maintenance or defense of said action or suit, as the case may be.

6.8 This Agreement may be executed in any number of counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

6.9 GPASA shall not voluntarily assign this Agreement without the consent of the Authority.

6.10 This Agreement supersedes and repeals any prior agreement, contracts, and understanding, written or oral, by and among the parties hereto with respect to the subject matter contained herein. This Agreement contains the entire agreement among the parties hereto, and no oral statements or representations or prior written matter not contained in this instrument shall have any force and effect.

6.11 This Agreement may not be modified or amended except in a writing signed by the parties hereto.

6.12 This Agreement shall be construed according to, be subject to and be governed by the laws of the Commonwealth.

NMT.PJD\GPASA.PJD\INTER-MU.AGR\3347-25

01/06/95 16:13 ☎717 622 0798 CD&W P.C. →→ SYSTEMS DESIGN 009/016
717 622 0798

6.13 This Agreement may be recorded by either party hereto.

6.14 In the event that GPASA enters into any agreement of a similar nature to this Agreement concerning sewage treatment at the Sewage Treatment Plant with any other municipality, municipal authority or similar entity, upon more favorable terms as concerns such municipality, municipal authority or similar entity than those provided herein, then the parties hereto agree that such terms shall be incorporated herein by amendment, upon request by the Authority. Upon request, GPASA shall furnish to the Authority a copy of all sewage treatment agreements outstanding between GPASA and any other municipality whose sewage is treated at the Sewage Treatment Plant.

6.15 In consideration of the within terms and conditions, the parties hereto, agree that if either party fails to observe and perform any of the covenants, conditions or agreements enumerated herein, the non-defaulting party may, upon sixty (60) days prior written notice, declare this Agreement to be in default; provided that if the defaulting party shall in the reasonable discretion of the non-defaulting party then be diligently pursuing a remedy for such condition within such sixty (60) day period, as is not otherwise in default, the defaulting party shall have such additional time as the non-defaulting party in its discretion reasonably exercised may grant to cure such condition and this Agreement shall then remain in full force and effect.

6.16 Upon the occurrence of a default or breach of this Agreement, which is not corrected within the time provided in Section 6.15 hereof, the non-defaulting party may pursue any remedy at law or in equity for such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers and their respective seals to be hereunto affixed.

ATTEST:

NORTH MANHEIM TOWNSHIP AUTHORITY

By

ATTEST:

TOWNSHIP OF NORTH MANHEIM

By

NMT.PJD\GPASA.PJD\INTER-MU.AGR\3347-25

01/06/95 16:13 ☎717 622 0798 CD&W P.C. +++ SYSTEMS DESIGN ☑010/016
717 622 0798

ATTEST:

GREATER POTTSVILLE AREA
SEWER AUTHORITY

By William T Thomas

NMT.PJD\GPASA.PJD\INTER-MU.AGR\3347-25

01/06/95 16:14 ☎717 622 0798 CD&W P.C. →→→ SYSTEMS DESIGN 011/016
717 622 0798

Water Management Program
Northeast Regional Office
90 East Union Street - 2nd Floor
Wilkes-Barre, PA 18701-3296
(717) 826-2553

RECEIVED
APR 08 1993
SYSTEMS DESIGN ENG. INC

April 7, 1993

CERTIFIED MAIL NO. P 354 525 833

Mr. Joseph Koury, Executive Director
Greater Pottsville Area Sewer Authority
P.O. Box 1163
Pottsville, PA 17901

RE: Additional Sewer Connection Allocation for the
Mount Carbon Area of North Manheim Township
City of Pottsville, North Manheim Township
Schuylkill County

Dear Mr. Koury:

On January 24, 1992, you contacted Mr. Thomas P. Unger of Systems Design Engineering, Inc., by letter, concerning the Greater Pottsville Area Sewer Authority's ("Authority") ability and willingness to treat wastewater from 24 structures in the Mount Carbon Area of North Manheim Township. Since that time, North Manheim Township has submitted an Act 537 Special Study which addresses the wastewater disposal needs of this and several other "problem" areas in North Manheim Township. The Department approved the Special Study on March 24, 1993.

With this approval and the Township's successful procurement of PENNVEST funding, the only remaining project implementation issue was the need for an allocation of 24 EDU's from the Department to the Authority. The 24 structures in the Mount Carbon area currently utilize "wildcat" sewers as their primary method of wastewater disposal. The Department does not consider the use of wildcat sewers as an acceptable wastewater disposal method.

Therefore, under Chapter 94 §57 of the Department's regulations (25 Pa. Code Ch. 94.57), the Department hereby grants an additional 24 EDU's of sewage connection allocation to be used exclusively for the implementation of the recently approved (March 24, 1993) North Manheim Township Act 537 Special Study. This allocation is awarded to the Authority since implementation of the North Manheim Township Act 537 Special Study will eliminate the existing public health hazard (wildcat sewers) in the Mount Carbon area of North Manheim Township.

This additional 24 EDU allocation may only be used for satisfying the wastewater connection needs of the Mount Carbon area of North Manheim Township as specified in the recently approved North Manheim Township Act 537 Special Study. The Department wishes to remind the Authority that this additional allocation and all future sewer connections granted from it must be reported to the Department in the appropriate quarterly Sewer Allocation Status Report(s) submitted by the Authority for the Main Wastewater Treatment Facility.

Please contact Scott F. Novatnak at (717) 826-2337, if you have any questions.

Very truly yours,

John J. Wilkes, Jr., P.E.
Program Manager
Water Management Program

cc: Ms. Barbara G. Miller/N. Manheim Twp.
Mr. Michael Pohronezny, Jr.
Mr. Thomas Schreffler/A. Benesch & Co.

01/06/93 16:15 717 622 0798 CD&W P.C. SYSTEMS DESIGN 013/016
717 622 0798

NORTH MANHEIM TOWNSHIP AUTHORITY
GREATER POTTSVILLE AREA SEWER AUTHORITY
INTER-MUNICIPAL SEWAGE AGREEMENT
CUSTOMER CONNECTIONS

Tax Parcel No. 18-13-19
-22
-26
-28(2)
-29
-30
-31
-36
-38
-40
-43
-44
-45
-49
-51
-52
-56
-57
-58
-59
-60(1)
-60

PLUS: 2 Reserved

24 Total Connections

SCHEDULE 2.1

01/06/95 16:16 717 622 0798 CD&W P.C. →→ SYSTEMS DESIGN 014/016
717 622 0798

NORTH MANHEIM TOWNSHIP AUTHORITY

LISTING OF CONNECTIONS ON MAIN STREET MOUNT CARBON AREA

1. 18-13-19
ADAMS, JOHN J. JR. & JEAN
20 Dana Street
Pottsville, PA 17901

2. 18-13-22
CENTELEGHE, VICTOR
200 Dana Street
Pottsville, PA 17901

3. 18-13-26
HESS, LAMBERT III & ELVIRA
250 Main Street
Pottsville, PA 17901

4. 18-13-28 (2)
GRIFFITHS, RONALD D. & ALEXIS A.
224 Main Street
Pottsville, PA 17901

5. 18-13-30
TODD, MARY E.
200 Main Street
Pottsville, PA 17901

6. 18-13-31
MOTLEY, EDWARD & GEORGINE
196 Main Street
Pottsville, PA 17901

7. 18-13-36
MACCARONE, ROCCO JR.
188 Main Street
Pottsville, PA 17901

8. 18-13-37
KRAMER, LISA ANN
150 Main Street
Pottsville, PA 17901

9. 18-13-38
MOORE, LARRY E. & ANNIE W.
18 Overlook Drive
Pottsville, PA 17901

10. 18-13-40
ETHERINGTON, CALVIN H. JR.
144 Main Street
Pottsville, PA 17901

11. 18-13-43
STOKELITUS, JERRY & JUDITH
142 Main Street
Pottsville, PA 17901

12. 18-13-44
HEINBAUGH, JOHN & HELEN
140 Main Street
Pottsville, PA 17901

13. 18-13-45
META, JOSEPH P.
136 Main Street
Pottsville, PA 17901

14. 18-13-49
BILLMAN, MARY J.
141 Main Street
Pottsville, PA 17901

15. 18-13-51
TUCKER, WILBUR & DERITA F.
143 Main Street
Pottsville, PA 17901

16. 18-13-52
MAGER, PAUL R. & ANITA
145 Main Street
Pottsville, PA 17901

17. 18-13-56
REIGEL, JOHN S. & FRANCES
185 Main Street
Pottsville, PA 17901

18. 18-13-57
HUFF, HARRY G. & DAVID G.
191 Main Street
Pottsville, PA 17901

SCHEDULE 2.1

01/06/95 16:16 ☎717 622 0798 CD&W P.C. →→ SYSTEMS DESIGN ☑015/016
717 622 0798

19. 18-13-58
MOORE, JOSEPH M. JR.
193 Main Street
Pottsville, PA 17901

20. 18-13-59
GALVIN, DIANN H.
221 Main Street
Pottsville, PA 17901

21. 18-13-60 (1)
ECKERT, NANCY A.
223 Main Street
Pottsville, PA 17901

22. 18-13-60
TOBIN, WILLIAM M. & MARY I.
225 Main Street
Pottsville, PA 17901

23. RESERVED

24. RESERVED

SCHEDULE 2.1

01/06/95 16:17 ☎717 622 0798 CD&W P.C. →→ SYSTEMS DESIGN ☑016/016
717 622 0798

NMTA and SCMA Seiders Hill Inter-Municipal Agreement, 11/15/2023

INTER-MUNICIPAL AGREEMENT

I. **DATE:** This Inter-Municipal Agreement ("Agreement") is being entered into on the 15th day of November, 2023.

II. **THE PARTIES:** This Agreement is being entered into by and between **NORTH MANHEIM TOWNSHIP AUTHORITY**, a Municipal Authority duly organized and existing under the laws of the Commonwealth of Pennsylvania with a mailing address of 303 Manheim Road, Pottsville, PA 17901 ("NMTA"), **SCHUYLKILL COUNTY MUNICIPAL AUTHORITY**, a Municipal Authority duly organized and existing under the laws of the Commonwealth of Pennsylvania with an address and place of business located at 221 South Centre Street, Pottsville, Schuylkill County, Pennsylvania 17901 ("SCMA"), and NORTH MANHEIM TOWNSHIP, a Township of the second class with a mailing address of 303 Manheim Road, Pottsville, Schuylkill County, Pennsylvania 17901 ("NMT").

III. **FACTUAL BACKGROUND:** Intending to be legally bound, NMTA, SCMA and NMT agree as follows:

1. Prior to 1993, entities known as Seiders Hill, Inc. and Seiders Hill Cooperative Association (collectively "Seiders Hill") acquired title to property along the Gordon Nagle Trail (SR 901) in North Manheim Township.

2. Seiders Hill was a private entity which subdivided and developed certain portions of its property in North Manheim Township. The development consists of residential building lots and homes as well as several commercial customers.

3. On or about January 12, 1993, NMTA, NMT and Seiders Hill entered into an agreement ("1993 Agreement") pursuant to which Seiders Hill constructed a sewage treatment plant ("Plant") consisting of one (1) 30,000 gallons per day (gpd) phase with the capability of

constructing two (2) additional phases of 30,000 gpd for a total of 90,000 gpd in order to provide wastewater treatment service to the Seiders Hill development and NMT.

4. As part of the 1993 Agreement, Seiders Hill agreed to provide to NMTA at no cost or expense a reserved capacity allocation in its Plant of a total of 13,000 gallons per day, or 14.44% of the total 90,000 gpd of capacity for NMTA's sole and separate use or that of its customers.

5. NMTA, NMT and Seiders Hill entered into addendums to the 1993 Agreement. These addendums were required as Seiders Hill continued to develop its real estate in phases and to specifically address the sewage capacity requirements, plant expansion and reporting requirements. These subsequent addendums and agreements were executed by Seiders Hill, NMTA and NMT all of which were assigned by Seiders Hill to SCMA including the following:

a, Phase 2 Addendum (March 27, 1995);

b. Phase 6 Addendum (December 18, 1997);

c. Phase 2 Plant Addendum (July 15, 2003);

d. Lot 114 Addendum (October 11, 2005); and

e. Lot 114 Release of EDU's (February 26, 2018); and

f. The parties acknowledge that while no Phase 3 Addendum exists, SCMA is obligated to make all improvements to the Plant required to connect Phase 3 to the Plant, to reserve 9 EDUs for the lots 1, 2 and 3 created pursuant to the Subdivision of Seiders Hill Lot 114 and Annexation of a portion of Lot 115 recorded in Map Book 58, page 849 and to release EDUs to provide sewer service to lot numbers 1,2,3,4,74,75,79,80,112,113 and 119 and to comply with the Acquisition Agreement dated July 1, 2020.

g. Nothing in this Agreement negates the requirements of SCMA to comply with the terms of the Acquisition Agreement and SCMA shall use reasonable efforts to notify NMTA in the event that any of the lots set forth in (f) above are transferred to a third party or are released for construction or development in accordance with Paragraph 7.

6. On or about July 1, 2020, SCMA entered into an Asset and Obligation Agreement with Seiders Hill pursuant to which SCMA (subject to the written approval of NMT and NMTA) assumed all addendums and agreements and acquired all of Seiders Hill's right, title and interest of, in and to the Plant, together with all collection and conveyance lines, pump station and other appurtenances related to the Plant and the sanitary sewer system. In addition, SCMA also acquired title to the Plant and the parcel on which the Plant is located and operating.

7. In order to alleviate NMTA's concerns about its reserved capacity of 13,000 gallons per day as set forth in the 1993 Agreement ("Reserve Capacity"), and to address additional and future issues now that SCMA has acquired all of Seiders Hill's rights, title and interest of, in and to the Plant, collection and conveyance system, representatives from SCMA, and professionals for NMT and NMTA met on August 19, 2020 and June 13, 2022.

8. NMTA, NMT and SCMA enter into this Agreement in order to formally approve the transaction of July 1, 2020 to outline their respective rights, duties and obligations vis-à-vis each other as it relates to SCMA's continued future operation of the Plant and conveyance and collection system.

IV. INTENT OF THE PARTIES: Intending to be legally bound and for good and valuable consideration, the parties covenant and agree as follows:

1. This Agreement shall supersede and memorialize all discussions between the parties prior to and including at the August 2020 and June 2022 meetings between their respective representatives and professionals.

2. The parties intend for this Agreement to memorialize the rights, duties and obligations which the parties shall have towards each other vis-à-vis SCMA's continued operation of the Plant and collection and conveyance system.

3. The parties intend for this Agreement to terminate and supersede all prior addendums and agreements listed and set forth in Section III above.

V. TERMS AND CONDITIONS: For good and valuable consideration, the parties agree as follows:

1. SCMA's Continued Operation of the Plant and Collection and Conveyance System.

A. SCMA agrees that it shall continue to operate the Plant and collection and conveyance system in a manner that is consistent with all applicable government rules and regulations, including all rules and regulations set forth by the Commonwealth of Pennsylvania, Department of Environmental Protection ("DEP").

B. SCMA agrees that it shall hire, retain and otherwise assign duly licensed, competent, experienced and qualified plant operators and personnel to operate the Plant and all aspects of the sewage collection and conveyance system.

C. SCMA shall promptly and timely complete and submit all required test results and data that may be required by the DEP. Furthermore, SCMA shall make such test results and reporting available to NMTA and its representatives upon written request. However, SCMA shall not be responsible for any NMTA engineering or legal costs associated with any requests made by NMTA for this information, nor shall NMTA be responsible for any SCMA engineering or legal costs associated with these requests.

D. SCMA shall promptly notify NMTA in writing of any material operational or other issues or problems that may arise at the Plant which would constitute a clear and present risk or danger to the residential and commercial customers of the Plant.

2. Transfer of Permit and Submission of Act 537 Plans.

A. To the extent required by DEP; SCMA, NMTA and NMT shall reasonably cooperate with each other and shall meet to share information and proposed submittals prior to the same being submitted and provided to DEP by SCMA with respect to SCMA's obligation to transfer NPDES permit # 63096 for the Plant and SCMA's submission of any and all Act 537 Plans or other planning and permitting documents required by DEP given SCMA's acquisition of the Plant and assets from Seiders Hill.

3. Information to be Furnished by SCMA.

A. SCMA shall provide to NMTA such rate/flow studies in order to allow both parties to assess the actual usage at the Plant.

B. SCMA shall provide to NMTA a copy of the annual Treatment plant report covered by DEP's Municipal Wasteload Management Regulations in Chapter 94 ("Chapter 94 Report").

4. Deferral of NMTA's Reserve Capacity.

A. NMTA agrees that it shall defer the 13,000-gallon-per-day Reserve Capacity set forth in the 1993 Agreement until needed by NMTA, to allow other users within the Seiders Hill development to connect to the Plant.

In the event any person or entity submits plans, permits or other applications requiring sanitary sewer capacity outside of the Seiders Hill Development to NMT and NMTA for property which would, per applicable DEP approved ACT 537 Plans and submittals, require wastewater to be treated at the Plant, then SCMA at that time shall if necessary to provide sewage capacity, construct those improvements to the Plant required to provide the 13,000-gallon-per-day Reserve Capacity at no cost or expense to NMTA or NMT. However SCMA expressly reserves the right to pass along all applicable costs of Plant expansion in excess of those costs generated to provide the 13,000 of reserve capacity, in whole or in part, to the purchasers / developers requiring such capacity at the discretion of SCMA.

5. Future Customers of the Seiders Hill System.

A. SCMA agrees to continue to operate the Plant, collection and conveyance system in compliance with the approved PADEP Section 3A of NMT Act 537 Plan revised June 1992 and all other regulatory requirements and will permit additional connections in the Seiders Hill development as physical capacity is available and within reason based upon the then current annual PADEP Chapter 94 Municipal Wasteload Management Report.

B. NMT, NMTA and SCMA expressly intend, understand and agree that neither party shall have the ability to reasonably reject or refuse to agree to a potential future customer connecting to and otherwise tying into the Seiders Hill system. Nothing

in this paragraph/section shall preclude SCMA, NMTA or NMT from rejecting a planning approval or permit application from a potential customer wishing to connect to or tie into the Seiders Hill system as a result of any defects or deficiencies in the permit application and any accompanying documentation required by NMTA and/or NMT as a part of such permit application process.

6. The Area Pursuant to Which NMTA's 13,000-Gallons-Per-Day Reserve Capacity Applies.

A. Seiders Hill received planning approval from DEP for the Seiders Hill Act 537 Plan Special Study which provided approval for a Plant capable of treating up to 90,000 gpd providing for 276 EDUs at 326 gpd per EDU for an area identified on Exhibit "A".

B. Attached to this Agreement as Exhibit "A" is a map showing the area of potential future development within North Manheim Township that forms the basis for the 13,000-gallon-per-day reserve capacity and the future service area shown on Exhibit "A" and as set forth in this Agreement.

C. NMTA and NMT intend, understand and agree that only the service area shown on Exhibit "A" shall be available for the 13,000-gallon-per-day Reserve Capacity set forth in this Agreement or other sewer capacity if available at the Plant. SCMA shall not be obligated to accept any additional NMT customers that are not within the original Seiders Hill development or located within the NMT Basin Map providing for service by NMTA as shown on Exhibit "A."

7. NMTA and SCMA shall bear their own legal costs and expenses in connection with the negotiation of and execution of this Agreement.

8. Insofar as SCMA is a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania and has the ability to effectuate rate increases across its county-wide water and wastewater systems, SCMA shall not be required to post any form of bond, security, letter of credit or other financial instrument in order to operate the Seiders Hill system going forward.

9. Although Seiders Hill previously agreed that Lot numbers 1, 2, 3, 4, 74, 75, 79, 80, 112, 113 and 119 of Seiders Hill and Lots 1, 2 and 3 created pursuant to Subdivision of Seiders Hill Lot 114 and Annexation of a portion of Lot 115 recorded in Map Book 58, page 849 (collectively "Lots") shall not be marketed, sold or otherwise transferred from or by Seiders Hill as said lots have no sewage capacity in the Plant, the parties agree that those Lots may be marketed, sold or otherwise transferred for future development and construction so long as the owners of those Lots fully comply with and abide by all applicable NMT and NMTA rules, regulations, zoning and permit requirements and the anticipated or proposed sewage capacity required for each of the Lots is available at the Plant based upon the most recently approved annual Chapter 94 Report. SCMA shall notify NMTA and request any approvals necessary prior to issuing any permits or approvals to connect the Lots to the Plant.

10. In the event that a potential sewage customer located within the NMT /NMTA service area requests sewage capacity in excess of the 13,000 gpd of reserved sewage capacity, the parties shall negotiate in good faith to provide additional capacity to NMT and NMTA.

VI. **CHOICE OF LAWS/VENUE:** The parties expressly intend, understand and agree that Pennsylvania law shall apply to this Agreement. The parties further expressly intend, understand and agree that any and all claims, suits, disputes and legal proceedings arising out of this Agreement shall be brought, filed and litigated exclusively in the Court of Common Pleas of

Schuylkill County, Pennsylvania and not in any other local, state or federal court of the Commonwealth of Pennsylvania or the United States of America. However, the parties may mutually agree to submit any claim, suit, dispute or legal proceeding arising out of this Agreement to non-binding mediation before a mutually agreed upon mediator.

VII. ENTIRE AGREEMENT – NO MODIFICATION: This Agreement memorializes the entire understanding and agreement by and between the parties concerning its subject matter. There may be no additions, deletions or modifications to this Agreement unless the same are done in writing signed by all parties. SCMA represents and warrants it has full legal authority to enter into this Agreement and to terminate the agreements set forth below without any approval from Seiders Hill. This agreement expressly terminates the 1993 Agreement and all Addendums including:

1. Phase 2 Addendum (March 27, 1995);
2. Phase 6 Addendum (December 18, 1997);
3. Phase 2 Plant Addendum (July 15, 2003);
4. Lot 114 Addendum (October 11, 2005); and
5. Lot 114 Release of EDU's (February 26, 2018).

VIII. FURTHER ASSURANCES: The parties agree to take any steps reasonably necessary and execute any documents reasonably necessary to carry out the intent, terms and conditions of this Agreement.

IX. **SIGNATURES:** IN WITNESS WHEREOF AND INTENDED TO BE LEGALLY BOUND, THE PARTIES SET THEIR HAND AND SEAL UNTO THIS AGREEMENT ON THE DATE SHOWN ON PAGE 1, ABOVE:

NORTH MANHEIM TOWNSHIP AUTHORITY

Attest: _____ By: _____
Chairman

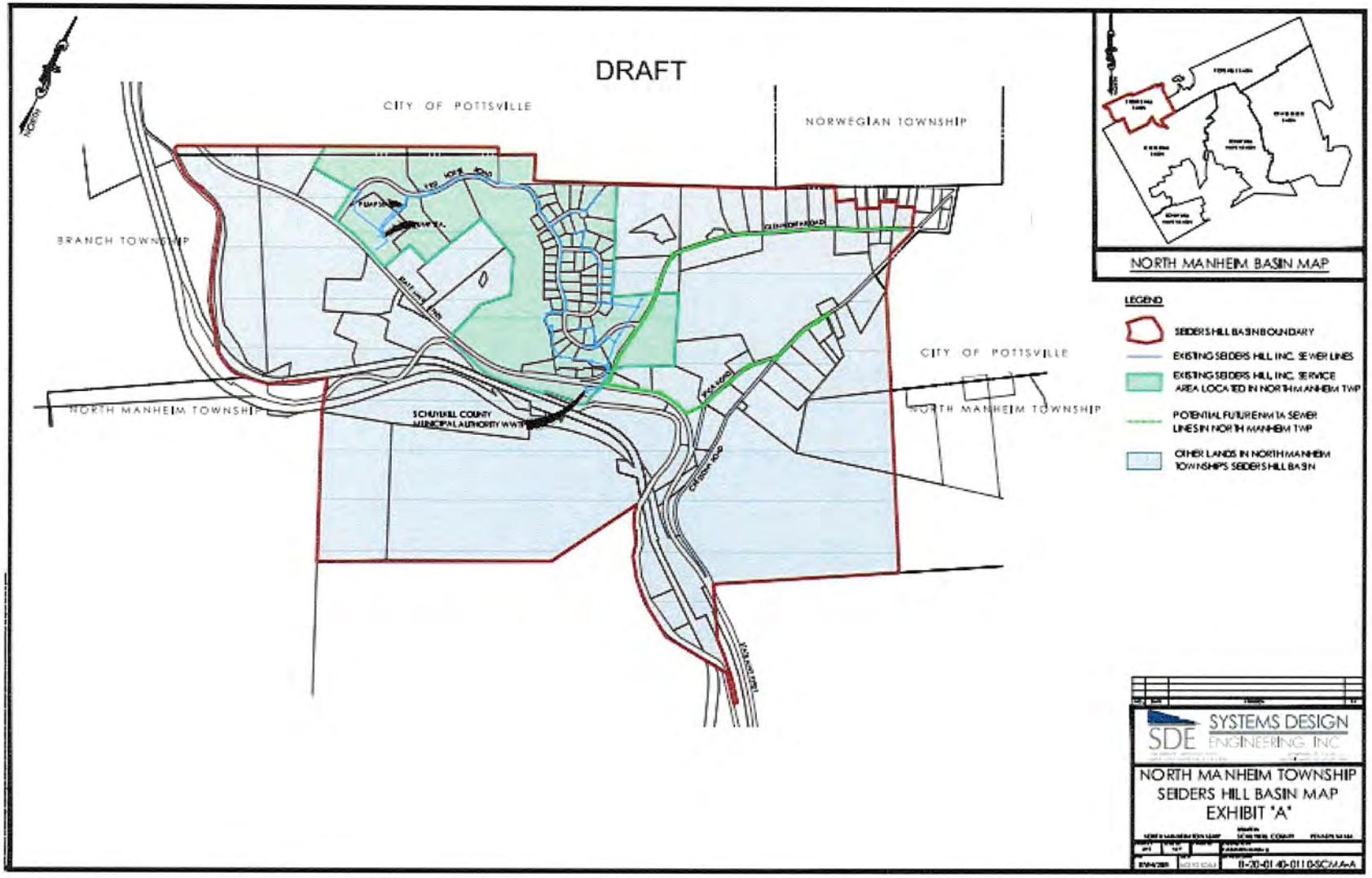
NORTH MANHEIM TOWNSHIP

Attest: _____ By: _____
Chairman

SCHUYLKILL COUNTY MUNICIPAL AUTHORITY

Attest: _____ By: _____

EXHIBIT "A"


DRAFT
CITY OF POTTSVILLE
NORWEGIAN TOWNSHIP
BRANCH TOWNSHIP
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY MUNICIPAL AUTHORITY WWTP
CITY OF POTTSVILLE
NORTH MANHEIM TOWNSHIP
NORTH MANHEIM BASIN MAP
LEGEND
SEIDERS HILL BASIN BOUNDARY
EXISTING SEIDERS HILL INC. SEWER LINES
EXISTING SEIDERS HILL INC. SERVICE AREA LOCATED IN NORTH MANHEIM TWP
POTENTIAL FUTURE ENVIA SEWER LINES IN NORTH MANHEIM TWP
OTHER LANDS IN NORTH MANHEIM TOWNSHIPS SEIDERS HILL BASIN
SDE SYSTEMS DESIGN ENGINEERING, INC.
NORTH MANHEIM TOWNSHIP
SEIDERS HILL BASIN MAP
EXHIBIT "A"

- NMTA, Borough of Orwigsburg, and The Municipal Authority of the Borough of Orwigsburg Agreement, 07/12/2010

ZIMMERMAN, LIEBERMAN & TAMULONIS

LAW OFFICES
111 EAST MARKET STREET
P.O. BOX 238
POTTSVILLE, PENNSYLVANIA 17901-0238

TELEPHONE (570) 622-1988
FAX (570) 622-3261

ROBERT M. ZIMMERMAN
1926-1994

JOHN B. LIEBERMAN, III
FRANK L. TAMULONIS, JR.
ERIC M. LIEBERMAN

38 EAST CENTRE STREET
MAHANOY CITY, PA 17948
(570) 773-2655

PLEASE USE P.O. BOX 238

July 29, 2010

Mark H. Koch, Esquire
Koch & Koch
P.O. Box 8514
Reading, PA 19603

Re: Borough of Orwigsburg/North Manheim Township Authority

Dear Mark:

I am pleased to enclose two originally executed Intermunicipal Agreements dated July 12, 2010.

Please contact me if you have any questions or concerns.

Very truly yours,

Eric M. Lieberman, Esquire
ericlieberman@comcast.net

EML/mem
Enclosures

AGREEMENT

THIS AGREEMENT, entered into this, the 12TH day of JULY, 2010, by and between **NORTH MANHEIM TOWNSHIP AUTHORITY**, a Pennsylvania municipal authority with an address of P.O. Box 607, Schuylkill Haven, Pennsylvania 17972 (hereinafter referred to as "North Manheim"); **BOROUGH OF ORWIGSBURG**, a political subdivision of the Commonwealth of Pennsylvania, having an address of 209 North Warren Street, Orwigsburg, Pennsylvania 17961 (the "Borough"); and **THE MUNICIPAL AUTHORITY OF THE BOROUGH OF ORWIGSBURG**, a Pennsylvania municipal authority, having an address of P.O. Box 128, Orwigsburg, Pennsylvania 17961 (hereinafter referred to as "Orwigsburg Authority").

WHEREAS, North Manheim provides sanitary sewage collection service in portions of North Manheim Township, Schuylkill County, Pennsylvania, and desires to provide sanitary sewage collection service within a portion of North Manheim Township more fully set forth and as shown on Exhibit "A" as prepared by Systems Design Engineering, Inc., dated June 3, 2009, attached hereto and incorporated herein by reference (hereinafter referred to as the "Service Area"); and

WHEREAS, Orwigsburg Authority has of this date sanitary sewage treatment capacity sufficient to accommodate the Service Area and is willing to provide said sanitary sewage capacity for the Service Area.

NOW, THEREFORE, the parties hereto, intending to be legally bound, hereby agree to bind themselves and their respective successors and assigns, as follows:

1. Definitions. The following words and phrases when used in this Agreement shall have the meanings ascribed to them in the introductory and preamble paragraphs hereto and in this section unless the context clearly indicates a different meaning:

(a) "Authorities Act" shall mean the Municipality Authorities Act, Act of June 19, 2001, P.L. 287, 53 Pa.C.S. §5601, et seq., as may be amended or supplemented from time to time.

(b) "Commonwealth" shall mean the Commonwealth of Pennsylvania.

(c) "DEP" shall mean the Department of Environmental Protection of the Commonwealth.

(d) "Design Capacity" shall mean for the purposes of this Agreement, the hydraulic and organic design capacity of the Sewage Treatment Plant as defined within the NPDES Part I Permit which is 1.30 MGD maximum monthly hydraulic capacity, 2,168 pounds/day Organic Design Capacity as well as the hydraulic capacity of the Orwigsburg Authority collection and conveyance facilities.

(e) "Domestic Sewage" shall mean all normal water-carried household and toilet water discharge from a Residential Establishment, 250 mg/liter BOD_5; 250 mg/liter TSS; 25 mg/liter Total Nitrogen.

(f) "Dwelling Unit" shall mean any room, group of rooms, house trailer, apartment, condominium, cooperative or other enclosure connected, directly or indirectly to the Orwigsburg Sewer System or North Manheim Sewer System and occupied or intended for occupancy as living quarters by an individual, a single family or other discrete group of persons, excluding institutional dormitories.

(g) "EPA" shall mean the Environmental Protection Agency of the United States of America.

(h) "Equivalent Dwelling Unit" (EDU) shall mean a volume of sewage per day at such rate as determined by North Manheim from time to time, in accordance with Pennsylvania law and regulations and agreed upon by Orwigsburg Authority, deemed to constitute the equivalent amount of sewage discharge by a Dwelling Unit from the Service Area.

(i) "Improved Property" shall mean any property located within the Service Area upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sewage shall be or may be discharged.

(j) "Industrial Establishment" shall mean any Improved Property used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property from which wastes, in addition to or other than Domestic Sewage, shall or may be discharged.

(k) "Industrial Wastes" shall mean any and all Sewage and other liquid wastes discharged from an Industrial Establishment other than Domestic Sewage discharged from such Industrial Establishment.

(l) "North Manheim Sewer System" shall include only those facilities of North Manheim now or hereafter located in North Manheim Township for the purpose of transporting Sewage from the Service Area to the Orwigsburg Sewer System.

(m) "Orwigsburg Sewer System" shall include all facilities located within the Borough of Orwigsburg for collecting, transporting and treating Sewage to and at the Sewage Treatment Plant and any extensions or addition thereto, including without limitation the Sewage Treatment Plant.

(n) "Person" shall mean any individual, partnership, company, association, society, trust, corporation or other group or entity, including municipalities, municipality authorities, school districts, and other units of government.

(o) "Residential Establishment" shall mean any room, group of rooms, house trailer, building or other enclosure, connected directly or indirectly, to the North Manheim Sewer System or Orwigsburg Sewer System and occupied or intended for occupancy as living quarters by an individual, or family, excluding institutional facilities.

(p) "Service Area" shall mean that area of North Manheim Township as shown on Exhibit "A."

(q) "Sewage" shall mean the water-carried wastes from Dwelling Units, Residential Establishments, business buildings, institutions and Industrial Establishments, but excluding wastes prohibited by Orwigsburg Authority.

(r) "Sewage Treatment Plant" shall mean an arrangement of devices and structures used by Orwigsburg Authority for treating and disposing of Sewage, presently existing and all future improvements and additions thereto.

(s) "Sewer Use Resolution" shall mean the Resolution to be adopted by North Manheim relating to the Service Area, including the rules and regulations thereof relating to pretreatment and discharge of sewage.

(t) Except as otherwise defined in this Agreement, all words, terms and/or phrases used herein shall be defined by the applicable definition therefor, if any, in the Authorities Act.

2. Connection of Service Area.

A. North Manheim may construct or cause to be constructed, at its sole cost and expense, the North Manheim Sewer System to serve the Service Area to be connected to the Orwigsburg Sewer System at manholes or other points of connection presently existing or to be constructed, as mutually agreed upon by North Manheim and Orwigsburg Authority. Such connections shall be made by or on behalf of North Manheim under the supervision of the consulting engineers for Orwigsburg Authority. North Manheim shall give Orwigsburg Authority at least ten (10) days' written notice of its intention to make such connection and shall not proceed thereafter unless and until written consent to make such connection is received from Orwigsburg Authority, which consent shall not be unreasonably withheld, conditioned or delayed. North Manheim shall be responsible for all costs related to the making of such connection, including but not limited to, the reasonable costs for services of the Orwigsburg Authority's consulting engineers in supervising the connection, securing DEP approval as well as engineering services related to the preparation of DEP submittals or plans if determined to be necessary.

B. Subject to the terms and conditions of this Agreement, North Manheim and Orwigsburg Authority agree that North Manheim shall have the right to dispose of and discharge Sewage emanating from the Service Area, or additional areas agreed upon by all parties to this Agreement, to the Orwigsburg Sewer System to be treated at the Orwigsburg Sewage Treatment Plant provided that the Design Capacity will not be exceeded with North

Manheim's proposed discharge and the reserve capacity of 50,000 gpd is available at the Orwigsburg Treatment Plant, subject to written approval of Orwigsburg, which approval shall not be unreasonably withheld, conditioned or delayed. The intent of the 50,000 gallon reserve capacity is not to prevent future hookups or growth in North Manheim Township. The purpose is to provide a triggering event for Borough review. If the amount of capacity falls to 50,000 gpd, the Borough reserves the right, from that point forward, to approve or deny future hookups and to monitor and assess the needs of potential growth within the Borough and the need for future service in North Manheim Township. The approval will be at the discretion of the Borough on a case by case basis.

C. As and when North Manheim connects the North Manheim Sewer System to the Orwigsburg Sewer System, Orwigsburg Authority agrees to operate and maintain continuously the Sewage Treatment Plant, and any enlargements, additions, improvements and modifications thereto and to provide North Manheim, as a bulk customer, Sewage treatment and disposal services in the Sewage Treatment Plant as provided for herein. Orwigsburg Authority agrees to maintain the Orwigsburg Sewage System in good repair and order and efficient operating condition necessary to satisfy all laws, regulations and standards prescribed or enforced by DEP, EPA, and any other governmental authority having jurisdiction thereof. However, the Borough and Orwigsburg Authority shall not be responsible for damage to North Manheim or its residents, caused by a malfunction of the Orwigsburg Sewer System, which could not reasonably have been avoided. The Orwigsburg Authority shall agree to provide upon request any annual reports, prepared by its engineer, regarding the operation, estimated expenditures and recommendations and advice with respect to the Orwigsburg Sewer System.

D. Orwigsburg Authority agrees to take all necessary steps to carry the Sewage passing through North Manheim's connection or connections to the Sewage Treatment Plant, whether said connections are made directly to the Sewage Treatment Plant or to the Orwigsburg Sewage System for transportation to the Sewage Treatment Plant, and to treat and dispose of such sewage in a manner required by the EPA, DEP, or any successor regulatory bodies.

E. North Manheim and Orwigsburg Authority agree that they will take all reasonable efforts to ensure that the Sewage passing through their respective Sewage Systems shall not contain storm water, roof or surface drainage or other extraneous water. Further, North Manheim and Orwigsburg Authority shall make all efforts to prohibit the entrance into their respective Sewage Systems of all prohibited industrial waste, chemicals, and other matter as regulated by Orwigsburg Authority. Orwigsburg Authority and North Manheim shall be able to take samples and make analysis of such samples at any time. North Manheim and the Orwigsburg Authority shall each bear the cost of complying with their respective obligations set forth in this Section 2.E.

F. Prior to providing sewage service, North Manheim shall enact a Sewer Use Resolution mutually agreeable to North Manheim and Orwigsburg Authority. North Manheim shall enact Rules and Regulations adapted from Orwigsburg Rules and Regulations.

3. Tapping Fees. North Manheim shall pay or cause to be paid to Orwigsburg Authority tapping fees to be determined and applied in accordance with the Authorities Act. The tapping fees shall be payable by North Manheim to Orwigsburg Authority prior to connection of an Improved Property to the North Manheim Sewer System, unless an alternative agreement, including the potential reservation of Sewage capacity, is consummated between North Manheim and Orwigsburg Authority in accordance with the Authorities Act. The current tapping fee for the Authority is $1,691.57 for sewer, $3,037.46 for water.

4. User Fees and Other Charges.

A. Sewer user fees for all Improved Property connected to the North Manheim Sewer System (both residential and non-residential) shall be billed to the owner of each Improved Property at a user rate established by North Manheim. The user rate shall include the sewer user fee of Orwigsburg Authority determined on the same basis and at the same rate as Orwigsburg Authority bills its own customers. North Manheim shall prepare quarterly annual user fee bills for each customer of sanitary sewage emanating from the Service Area. Payment thereof shall be made directly to North Manheim and upon collection of the same North Manheim shall remit the Orwigsburg Authority portion of such user fees to Orwigsburg Authority. In the event that water meter readings are not available or sewage meters are impractical to install, an equivalent flat rate billing for each EDU shall be established that is agreeable to both North Manheim and Orwigsburg Authority. The parties acknowledge that Orwigsburg Authority presently bills its own customers on a quarterly basis at the rate of $88.00 per EDU for the first 5,000 gallons with an additional $2.50 for each thousand gallons or fraction thereof above the first 5,000 gallons if metered water usage is available. If metered water usage is not available, the Orwigsburg Authority presently bills quarterly on a flat rate basis in the amount of $108.00 per EDU.

B. The Orwigsburg Authority user fees shall be calculated by Orwigsburg and invoiced to North Manheim each quarter in arrears and shall be accompanied by a report of the manner of calculation. The user fees shall be paid by North Manheim to Orwigsburg Authority within forty (40) days of North Manheim's receipt of the Orwigsburg Authority quarterly invoice. Any delinquent amounts of the user fees shall be subject to a penalty of five percent (5%) or such lesser amount as may be established by law regarding the assessment of such penalties.

C. Orwigsburg Authority agrees that any other charges shall be in conformance with Authorities Act.

D. The cost of transportation and treatment of Sewage collected outside of the Borough shall not be subsidized by Orwigsburg Authority or its residents, and the cost of the transportation and treatment of Sewage collected from connections within the Borough shall not be subsidized by North Manheim or its residents.

E. Orwigsburg Authority shall keep appropriate audited records and accounts with respect to operating costs of the Orwigsburg Sewer System, so that determinations which shall be necessary can be made promptly, at the required times, with fairness and accuracy. Such

records and accounts shall be open to inspection by North Manheim, upon reasonable notice, at reasonable times. A copy of the certified audits of appropriate records and accounts of Orwigsburg Authority with respect to the Orwigsburg Sewer System shall be provided to North Manheim.

5. Regulatory Changes. Whenever new rules, regulations or legislative acts promulgated or enacted by state or federal regulatory bodies, or the interpretation of additional funds concerning the operation of the Sewage Treatment Plant, which were not foreseen or contemplated upon the execution of this Agreement, then in such event, this Agreement may be renegotiated upon written notice from Orwigsburg Authority to North Manheim, solely as to the payment of any such additional expenses of operation of the Sewage Treatment Plant incurred as a direct result of such new rules, regulations, acts or interpretations.

6. Access to Information. Each party shall provide the other, from time to time, all information relevant to the proper administration of their responsibilities under this Agreement, or in respect to the interpretation hereof, as, and in such form and detail as, may be reasonably requested and each shall, at all reasonable times and from time to time, permit their representatives to examine and inspect their respective records and physical facilities relevant to the subject matter of this Agreement.

7. Force Majeur. Notwithstanding any other provision of this Agreement, no party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of God or riot, sabotage, public calamity, flood, strike breakdown of the Sewer System of North Manheim or Orwigsburg Authority, or other event beyond its reasonable control. The party having the responsibility for the facilities so affected, however, shall proceed promptly to remedy the consequences of such event.

8. Indemnification. Each party agrees to indemnify and save harmless the other party against all costs, losses or damage on account of any injury to persons or property occurring in the performance of this Agreement due to the negligence of such party or its agents or employees.

9. Invalidity. Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected; and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein.

10. Term. This Agreement shall become effective as of the date hereof and shall continue in full force and effect for a term of five (5) years. This Agreement shall automatically renew for additional five (5) year terms upon the expiration of the then current term unless either party provides written notice to the other of its election not to extend the term, said notice to be sent not less than one hundred eighty (180) days prior to the expiration of the then current term.

11. Non-Waiver of Strict Performance. The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

12. Assignment. Neither party hereto shall voluntarily assign this Agreement without the written consent of the other parties hereto. Subject to the foregoing this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

13. Integration. This Agreement supersedes and repeals any prior agreement, contracts, and understanding, written or oral, by and among the parties hereto with respect to the subject matter contained herein. This Agreement contains the entire agreement among the parties hereto, and no oral statements or representations or prior written matter not contained in this instrument shall have any force and effect.

14. Amendment. This Agreement may not be modified or amended except in a writing signed by the parties hereto.

15. Controlling Law. This Agreement shall be construed according to, be subject to and be governed by the laws of the Commonwealth.

16. Default, Cure and Arbitration. In the event that either party is in default under this Agreement, the defaulting party shall have sixty (60) days after written notice from the non-defaulting party to cure said default. Any and all disputes arising out of this Agreement shall be resolved by non-binding, common law arbitration. North Manheim and Orwigsburg Authority shall each select an arbitrator. Those arbitrators shall select a third arbitrator. If the arbitrators cannot agree on the third arbitrator, the President Judge of the Schuylkill County Court of Common Pleas shall appoint an attorney to act as the third arbitrator, who shall be the chairman. The Chairman shall set all rules and schedules for the procedure of the arbitration.

17. Remedies Upon Default. Upon the occurrence of a default or breach of this Agreement, which is not corrected within the time provided in Section 16 hereof, the non-defaulting party may pursue any remedy at law or in equity for such default.

18. Notice. Any notice required pursuant to this Agreement shall be by certified mail return receipt requested addressed to the party being notified at the address listed in this Agreement.

IN WITNESS WHEREOF, the parties hereto have hereunto caused this Agreement to be executed and their hands and seals affixed the day and year first above written.

NORTH MANHEIM TOWNSHIP AUTHORITY

ATTEST:

By: _____
Chairman

_____
(Assistant) Secretary

THE MUNICIPAL AUTHORITY OF THE BOROUGH OF ORWIGSBURG

ATTEST:

(Assistant) Secretary

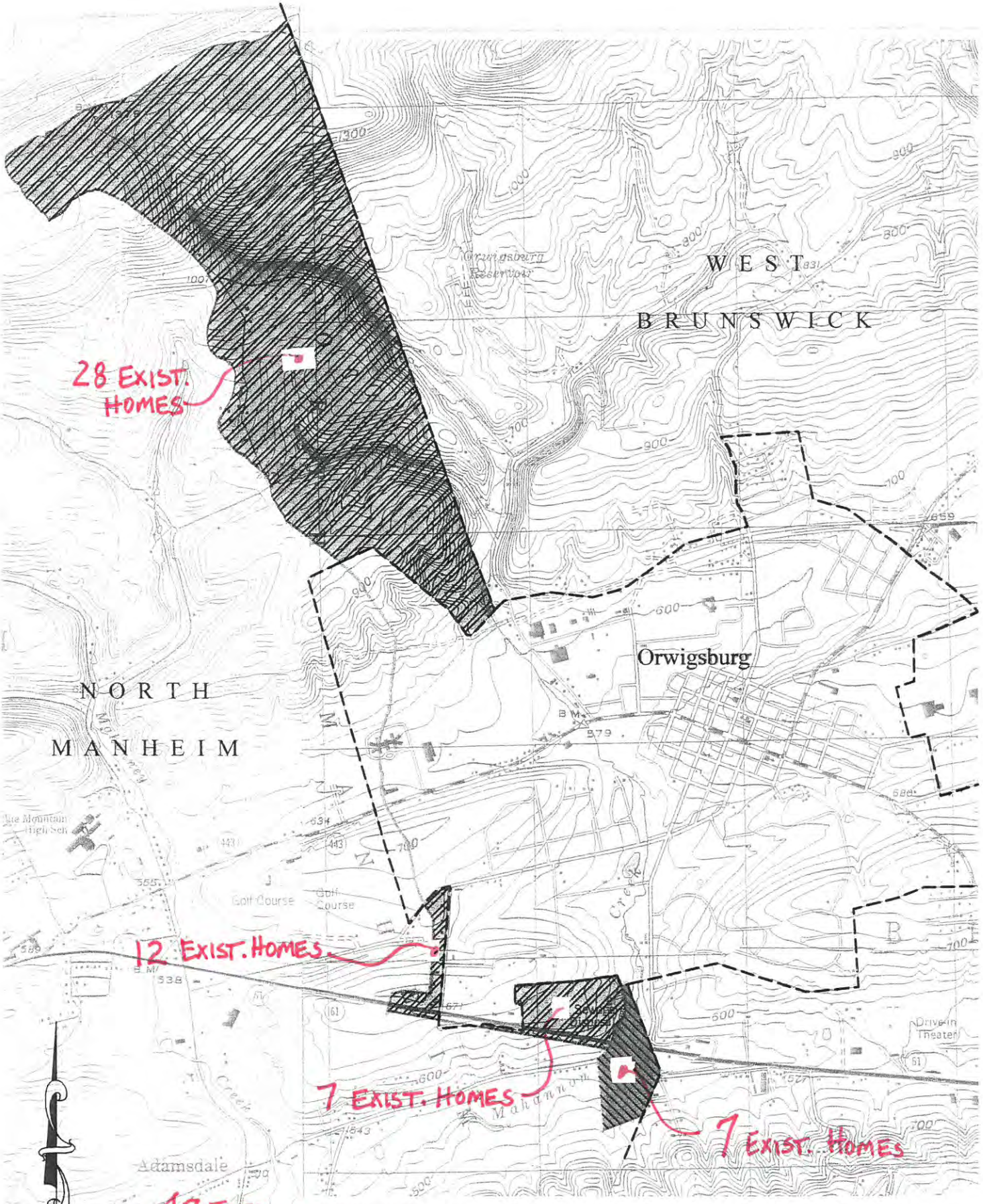
By: _____
Title:

BOROUGH OF ORWIGSBURG

ATTEST:

(Assistant) Secretary

By: _____
Title:


WEST
BRUNSWICK
NORTH
MANHEIM
Orwigsburg
28 EXIST. HOMES
12 EXIST. HOMES
7 EXIST. HOMES
7 EXIST. HOMES
47 TOTAL EXIST. HOMES
7 TOTAL EXIST HOMES
AREAS OF NORTH MANHEIM TOWNSHIP THAT CAN FLOW INTO THE ORWIGSBURG SANITARY SEWER SYSTEM BY GRAVITY
AREAS OF NORTH MANHEIM TOWNSHIP THAT MUST BE PUMPED INTO THE ORWIGSBURG SANITARY SEWER SYSTEM
Prepared by SDE, Inc., 3 June 2009

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix C ■ GPASA Response Letter

RESPONSE TO
GREATER POTTSVILLE AREA SEWER AUTHORITY
CORRECTIVE ACTION PLAN

CORRECTIVE ACTION PLAN

The Greater Pottsville Area Sewer Authority (GPASA) is under a Corrective Action Plan (CAP) to address high flows within their sanitary sewer system. North Manheim Township Authority (NMTA) has a small section of public sanitary sewer system that connects to the GPASA system in Mount Carbon. As part of the CAP, GPASA completed flow monitoring in May 2015 at a number of locations throughout the system, including the point at which flows from the NMTA system connect to the GPASA system in Mount Carbon.

On March 17, 2017, GPASA sent a letter to NMTA stating that significant inflow/infiltration (I/I) was identified in the NMTA system. "Specifically, the average dry weather flow from May 5th through May 26th was 55,484 gallons per day (gpd), whereas the allowable flow is 11,000 gpd (i.e., based on 20 EDUs x 550 gpd/EDU)." The letter further states that the NMTA should provide the GPASA with a written plan that indicates what measures NMTA will take to identify and eliminate the excessive I/I within its system.

The NMTA requested that the GPASA provide the raw flow/rainfall data so that it can be analyzed to determine the accuracy of the data and potential sources of I/I. On April 11, 2017, GPASA provided the raw flow/rainfall data. This report provides an analysis of the flow/rainfall monitoring data collected by the GPASA at Flow Meter 11, which monitored contributory flows from NMTA to the Mount Carbon Sewer System from May 5, 2015 through May 28, 2015; as well as, subsequent follow-up investigation data.

FLOW/RAINFALL DATA COLLECTION

The GPASA hired a sewer system investigation contractor to install and collect the sewage flow and rainfall data. The contractor utilized the Hach FL900AV flow meters to collect the data. The meter contains two parts; (1) a datalogger / battery pack, and (2) a sensor that collects depth and velocity readings within the pipe. The velocity reading is taken from the front of the sensor, while the depth reading is taken from the top of the sensor. The sensor has a dimension of 0.9-in H x 1.5-in W x 5.31-in L. Refer to attached data sheet.

Figure 1: Area / Velocity Flow Meter
Source: Hach/American Sigma

Accurate sewage flow monitoring is a critical component of any investigation. In addition to characterizing sewage flows in the system, accurate flow monitoring is required to adequately assess the success of future improvements. Because of the limitations of the meters themselves, selecting accurate monitoring locations is critical. To obtain the best results, sewage flows should be greater than 1-inch in depth at all times throughout the metering period so that flows continuously pass over the top of the sensor. In addition, sewage flows should be laminar in nature; however, they should also have enough velocity to prevent unwanted materials such as bathroom paper from fouling the sensor and giving a false reading.

In order to estimate the portion of the wet weather flow that is attributed to infiltration and the portion attributed to inflow, the correlation of wet weather flows with rainfall amount and intensity is required. The collection of continuous rainfall amount and intensity data was obtained by installing a rain gauge with a "tipping bucket" mechanism, which records rainfall to the nearest 0.01-inch. With this data, variations in the intensity of rainfall and the starting and ending times of wet weather events are identified.

Figure 2: Digital Rain Gauge
Source: Rainwise, Inc.

FLOW/RAINFALL DATA ANALYSIS

The raw data obtained from GPASA was analyzed to determine both the accuracy of the data and potential sources of I/I within the NMTA system. The following provides a summary of the analysis.

Sewage Flow Graph

A sewage flow / rainfall monitoring graph was prepared which provides a graphical representation of the data. Refer to the attached Exhibit 1.

The graph shows that sewage flows drastically changed from very high flows to very low flows extremely quickly. In many cases throughout the monitoring period, these changed occurred within a 5 to 10 minute period. As an example, the flow measurement on 05/06/15 at 12:45 PM was 0.040 MGD. Five minutes later, at 12:50 PM, it was measured at 0.100 MGD. Again, five minutes later, at 12:55 PM, it was measured at 0.030 MGD. While changes in sewage flows do occur over a 5-minute period, the dramatic changes seen at Flow Meter 11 are not consistent with accurate sewage flow monitoring. This trend was identified throughout the entire monitoring period.

In addition to the general pattern of the sewage flow, the overall change in the pattern in response to wet weather events was analyzed. During the monitoring period, there were two significant rainfall events; (1) on 05/18/15 which produced 0.86-inches of rain over a 16-hour period, and (2) on 05/27/15 which produced 1.42-inches of rainfall over a 2.5-hour period. During both the events, very little change in system flows occurred. Refer to the table below.

Summary of Sewage Flows in Response to Wet Weather Events

WET WEATHER EVENT (DATE / START TIME)	AVERAGE SEWAGE FLOW FOR 12-HR PERIOD PRIOR TO THE RAINFALL EVENT (GPD)	TOTAL RAINFALL (INCHES)	DURATION (HRS)	AVERAGE SEWAGE FLOW DURING THE RAINFALL EVENT (GPD)	AVERAGE SEWAGE FLOW FOR 12-HR PERIOD AFTER THE RAINFALL EVENT (GPD)
05/18/15 12:30 PM	58,958	0.86 in	16 hrs	62,906	60,758
05/27/15 1:55 PM	43,341	1.42 in	2.5 hrs	20,000	17,014

Systems that are prone to I/I would tend to show sewage flows significantly higher during and after rainfall events. This is not the case with the data for Flow Meter 11. Actually, sewage flows dramatically decreased during and after the 05/27/15 event.

Scatter Graph

A scatter graph was prepared which provides a graphical representation the measured velocity versus the measured depth (i.e. level). Refer to the attached Exhibit 2.

A scatter graph is utilized to identify the accuracy of the measured data. For data that has a high degree of accuracy, the measured values would show a high degree of correlation. As an example, every time the sewage flow within the pipe is measured at a depth of 2-inches, the velocity would be measured at 2.5 ft/sec. When data is measured with a high degree of accuracy, the general pattern would look like a thin cigar shape that tilts to the right. In reviewing the scatter graph for Flow Meter 11, the pattern is not reflective of data with a high degree of accuracy. This graph shows a wide swath with many outlining points.

Metering Location

Finally, the metering location was analyzed to determine the physical characteristics of the system that might affect the metering of sewage flows from NMTA. The following statistics provide a summary of the metering site.

- Pipe Size, Material, and Slope 8-in PVC @ 13.125%
- Average Daily Allowable Flow 250 GPD/EDU x 20 EDUs = 5,000 GPD
- Maximum Daily Allowable Flow 550 GPD/EDU x 20 EDUs = 11,000 GPD

Utilizing the Manning's equation, the depth of flow can be calculated for each of the flow rates. Based on the physical characteristics of the system, an average daily allowable flow of 5,000 GPD would result in a depth of approximately 0.4-inches. At the maximum daily allowable flow of 11,000 GPD, the depth of sewage within the pipe would be 0.6-inches. Thus, the range of sewage flows that are allocated to the NMTA for the Mount Carbon Sewer System, are below the measuring capability of the Hach FL900AV meter since the meter has a height of 0.9-inches. In addition, the expected velocity from this range of flows would be approximately 3.5 ft/sec. Only two percent of the data points collected during the monitoring period were at or above 3.5 ft/sec. At these depths and velocity, sewage would most likely be splashing around and over the sensor on a regular basis, which could result in false readings.

Conclusions

The combination of both the physical characteristics of the metering site and the physical limitations of the meter itself make measuring contributory flows from NMTA to GPASA extremely difficult, if not impossible. The information presented clearly shows that the data collected during the monitoring period does not accurately reflect sewage flows within the system. In addition, it does not appear that there is any significant I/I within the system since there was no response in sewage flows that correlate to the wet weather events.

CCTV/MANHOLE INSPECTION DATA COLLECTION

Even though the metering data does not appear to adequately represent sewage flows within the system and does not show any signs of significant I/I within the system, this portion of the system was inspected to

both confirm that there are no structural issues and to perform a routine cleaning of the system. The inspection included both closed-circuit television inspection of the sewer main and detailed inspections of the manholes. The NMTA hired a sewer system investigation contractor to perform these inspections.

The contractor utilized a pan and tilt color camera that is self-propelled through sewer mains. CCTV inspections began with a light cleaning of each sewer main to remove any debris that might impede the progress of the camera or cause the camera to become lodged in the sanitary sewer. Once the sanitary sewer was cleaned, it was inspected. The camera operator observed the video as it recorded lateral connections, pipe segments and pipe joints. Any infiltration points or defects were recorded. The operator summarized the findings of the inspection on a detailed log sheet in a computerized database.

Figure 3: CCTV Camera.
Source: CUES

Manhole inspections consisted of a visual evaluation of conditions surrounding the manhole and the condition of the manhole interior. The individual components of the manholes, including the frame and cover, riser(s), walls, benches, channels, and pipe seals were inspected, and their general condition noted along with any evidence of leakage. The results were recorded on a standard inspection form to provide consistent inspection data. Photographs of each manhole were taken to visually document the condition.

CCTV/MANHOLE INSPECTION DATA ANALYSIS

The CCTV inspections did not identify structural defects within the sewer mains. A total of 1,271 linear feet was inspected by CCTV. The investigation results are summarized in following table.

CCTV Inspection Findings

DECRIPTION OF FINDINGS	NUMBER OF EVENTS OBSERVED
Sewer Mains Inspected	5
Linear Feet of Sewer Mains Inspected	1,217 LF
Pipe Size	8-in
Pipe Material	PVC
No. of Lateral Connections	24
No. of Defective Lateral Connections	0
No. of Pipe Failures	0
No. of Pipe Cracks	0
No. of Pipe Fractures	0
No. of Defective Joints	0
No. of Roots	0
No. of Active Infiltration Points	0

The inspection report by the sewer system contractor is attached as Exhibit 3 for reference.

Inspections of six (6) manholes were completed as a part of the investigation work. A tabular summary of the results is provided in the following table.

Manhole Inspection Findings

DECRIPTION OF FINDINGS	NUMBER OF EVENTS OBSERVED
Manholes Inspected	6
Holes in Cover	0
Frame Broken	0
Frame Offset	0
Evidence of Leaking	0
Root Penetration	0
Steps in Poor Condition	0
Riser in Poor Condition	0
Cone/Wall in Poor Condition	0
Bench in Poor Condition	0
Channel in Poor Condition	0

The inspections revealed that all of the manholes are in good operating condition and there is no evidence of leakage or infiltration. One manhole frame and cover was welded shut; thus, it was unable to be inspected. The inspection report by the sewer system contractor is attached as Exhibit 4 for reference.

Conclusion

The results of the CCTV inspections and manhole inspections reveal that the overall system owned by NMTA is structurally sound and show no signs of any significant infiltration. No further investigative work and/or corrective measures are necessary at this time.

EXHIBIT 1: SEWAGE FLOW / RAINFALL MONITORING GRAPH

GREATER POTTSVILLE AREA SEWER AUTHORITY
CORRECTIVE ACTION PLAN
FLOW METER 11: NMTA FLOWS TO MOUNT CARBON

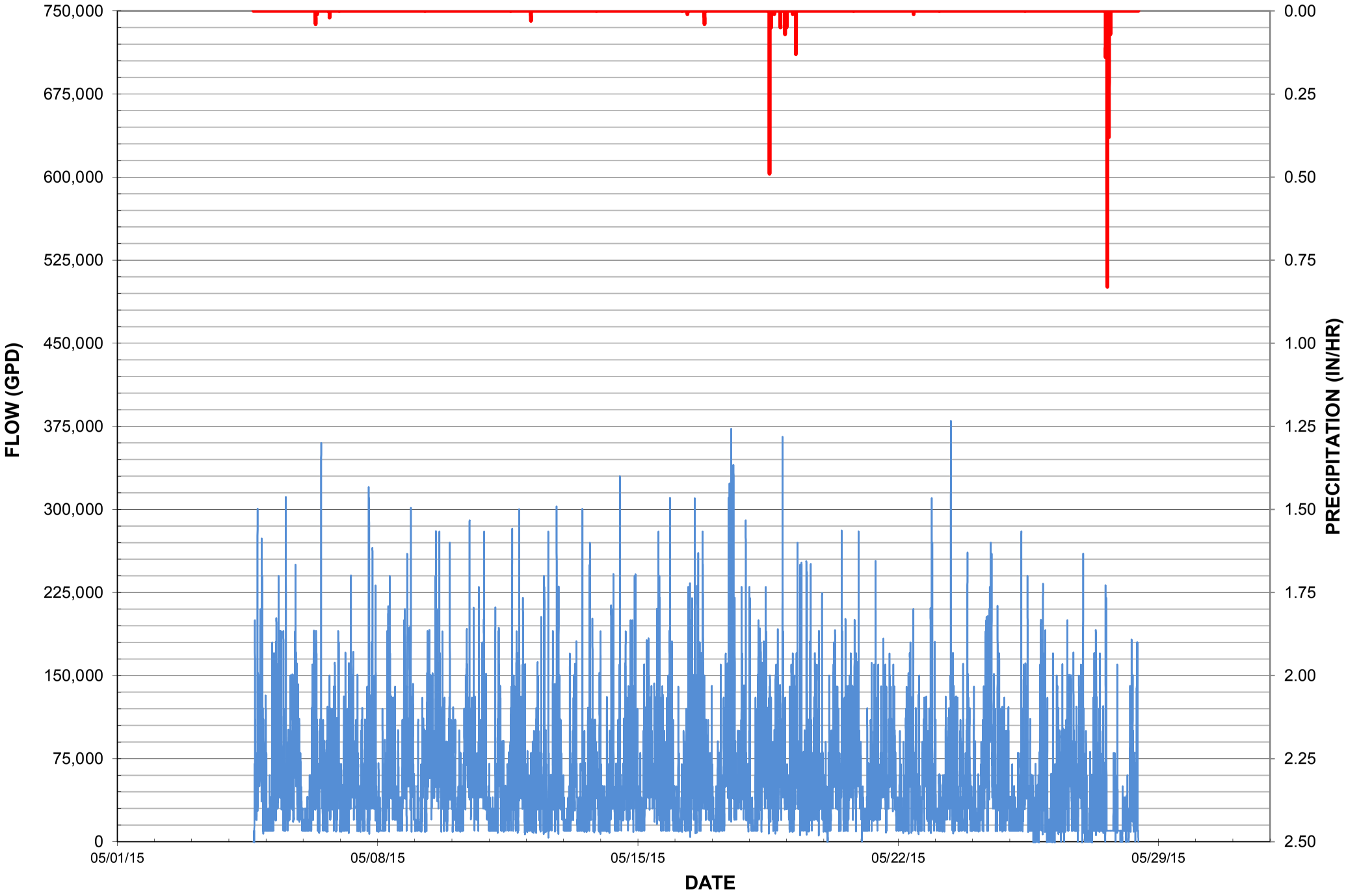
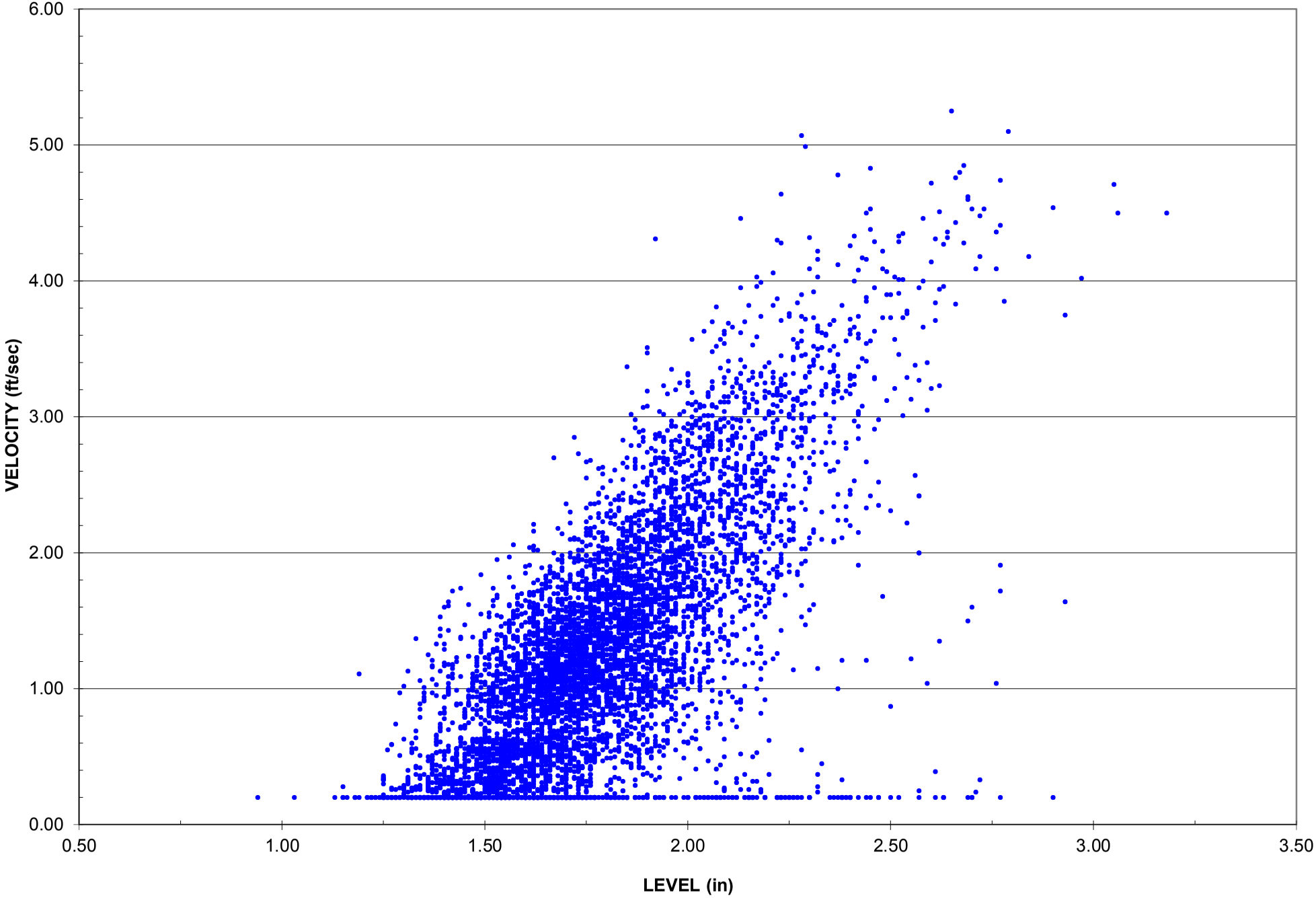


EXHIBIT 2: LEVEL VS. VELOCITY SCATTER GRAPH

GREATER POTTSVILLE AREA SEWER AUTHORITY
CORRECTIVE ACTION PLAN
FLOW METER 11: NMTA FLOWS TO MOUNT CARBON



SANITARY SEWER MAINLINE CCTV INSPECTION REPORTS AND VIDEOS

SYSTEMS DESIGN ENGINEERING, INC.

NORTH MANHEIM TOWNSHIP

Mr. REHAB
SEWER SYSTEM REHABILITATION

JUNE, 2017

Mr. Rehab, Inc.
THREE LONG LANE, MECHANICSBURG, PA 17050

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Defect Listing Plot Left

Upstream MH	Downstream MH	Street	City	Date	
M C 1	M C 2	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	369.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

SPR	N/A	SPRI	N/A	Location Code	Sewer Use
MPR	N/A	MPRI	N/A	Light Highway	Sanitary
QSR	N/A	QMR	N/A	Purpose	Flow Control
				Routine Assessment	Not Controlled

OPR	OPRI	Weather	Pre-Cleaning	Date Cleaned
N/A	N/A	Dry	No Pre-cleaning	

Surveyed By	Certificate Number	Drainage Area	Additional Info
Jerry_K	12345678		
Location Details	Direction	Total Length	Additional_Info_cont
	Upstream	369.5	

M C 2

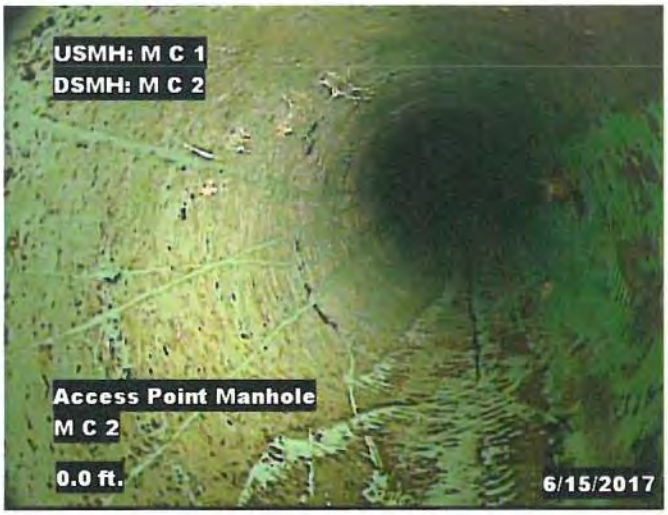
	Code:	Continuous:	Pos:	Val 1 / 2 :	% :	Gallons:
0.0 ft.	Access Point Manhole M C 2					
0.0 ft.	Water Level				5	
24.6 ft.	Tap Factory Made Active		3	6		
75.1 ft.	Tap Factory Made Active		3	6		
126.2 ft.	Tap Factory Made Active		9	6		
159.4 ft.	Tap Factory Made Active		2	6		
198.2 ft.	Tap Factory Made Active		9	6		
363.8 ft.	Tap Factory Made Active		3	6		
369.5 ft.	Access Point Manhole M C 1					

M C 1

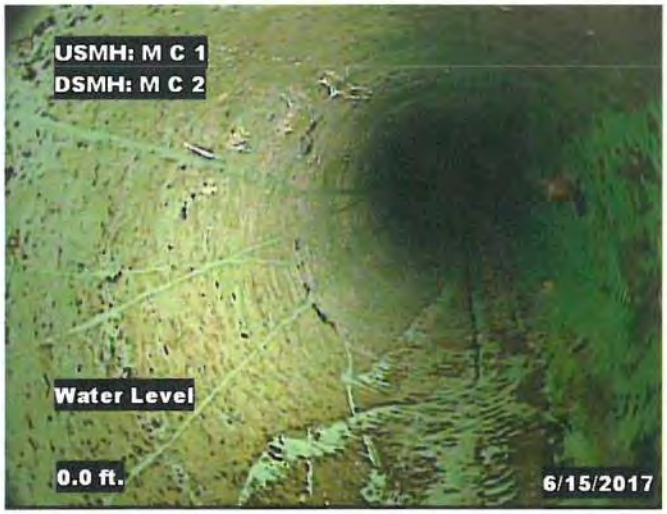
Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 1	M C 2	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	369.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	



Distance: 0.0 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 2



Distance: 0.0 ft. **Grade:** 0
Condition: Water Level
Remarks: N/A

Distance: 24.6 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 75.1 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 1	M C 2	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	369.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 126.2 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 159.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 198.2 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 363.8 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 1	M C 2	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	369.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance:	369.5 ft.	**Grade:**	0
Condition:	Access Point Manhole		
Remarks:	M C 1		

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Defect Listing Plot Left

Upstream MH	Downstream MH	Street	City	Date	
M C 2	**M C 3**	**Main St**	**North Manheim**	**20170615**	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			**Circular**	**14**	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		**Polyvinyl Chloride**	**10**	**8**	

SPR	**N/A**	SPRI	**N/A**	Location Code	Sewer Use
MPR	**N/A**	MPRI	**N/A**	**Light Highway**	**Sanitary**
QSR	**N/A**	QMR	**N/A**	Purpose	Flow Control
OPR		OPRI		**Routine Assessment**	**Not Controlled**
N/A		**N/A**		Weather	Pre-Cleaning / Date Cleaned
Surveyed By		Certificate Number		**Dry**	**No Pre-cleaning**
Jerry_K		**12345678**		Drainage Area	Additional Info
Location Details		Direction		Total Length	Additional_Info_cont
		Downstream		**14**	

M C 2

	Code:	Continuous:	Pos:	Val 1 / 2 :	% :	Gallons:
0.0 ft.	Access Point Manhole M C 2					
0.0 ft.	Water Level				5	
14.0 ft.	Access Point Manhole M C 3					

M C 3

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 2	M C 3	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	14	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance:	0.0 ft.	**Grade:**	0
Condition:	Access Point Manhole		
Remarks:	M C 2		

Distance:	0.0 ft.	**Grade:**	0
Condition:	Water Level		
Remarks:	N/A		

Distance:	14.0 ft.	**Grade:**	0
Condition:	Access Point Manhole		
Remarks:	M C 3		

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Defect Listing Plot Left

Upstream MH	Downstream MH	Street	City	Date	
M C 3 A	**M C 3**	**Main St**	**North Manheim**	**20170615**	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			**Circular**	**135.8**	
Customer		Material	Pipe Joint Length	Diameter/H	Width
Systems Design Engineering Inc		**Polyvinyl Chloride**	**10**	**8**	

SPR	**N/A**	SPRI	**N/A**	Location Code	Sewer Use
MPR	**N/A**	MPRI	**N/A**	**Light Highway**	**Sanitary**
QSR	**N/A**	QMR	**N/A**	Purpose	Flow Control
OPR		OPRI		**Routine Assessment**	**Not Controlled**
N/A		**N/A**		Weather / Pre-Cleaning / Date Cleaned	
				Dry / **No Pre-cleaning**	
Surveyed By	Certificate Number	Drainage Area	Additional Info		
Jerry_K	**12345678**		**Manhole M C 3 A called M C 3 in vid**		
Location Details	Direction	Total Length	Additional_Info_cont		
	Upstream	**135.8**	**Manhole M C 3 called M C 4 in vid**		

M C 3

	Code:	Continuous:	Pos:	Val 1 / 2 :	% :	Gallons:
0.0 ft.	Access Point Manhole M C 3					
0.0 ft.	Water Level				5	
125.6 ft.	Tap Factory Made Active		3	6		
125.7 ft.	Tap Factory Made Active		10	6		
135.8 ft.	Access Point Manhole M C 3 A					

M C 3 A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 3 A	M C 3	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	135.8	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 0.0 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 3

Distance: 0.0 ft. **Grade:** 0
Condition: Water Level
Remarks: N/A

Distance: 125.6 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 125.7 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 3 A	M C 3	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	135.8	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 135.8 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 3 A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Defect Listing Plot Left

Upstream MH	Downstream MH	Street	City	Date	
M C 3	M C 5	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	380.1	
Customer		Material	Pipe Joint Length	Diameter/H	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

				Location Code	Sewer Use
SPR	N/A	SPRI	N/A	Light Highway	Sanitary
MPR	N/A	MPRI	N/A	Purpose	Flow Control
QSR	N/A	QMR	N/A	Routine Assessment	Not Controlled

OPR	OPRI	Weather	Pre-Cleaning	Date Cleaned
N/A	N/A	Dry	No Pre-cleaning	
Surveyed By	Certificate Number	Drainage Area	Additional Info	
Jerry_K	12345678			
Location Details	Direction	Total Length	Additional_Info_cont	
	Downstream	380.1		

M C 3

	Code:	Continuous:	Pos:	Val 1 / 2 :	% :	Gallons:
0.0 ft.	Access Point Manhole M C 3					
0.0 ft.	Water Level				5	
19.4 ft.	Tap Factory Made Active		3	6		
71.4 ft.	Tap Factory Made Active		3	6		
78.7 ft.	Tap Factory Made Active		3	6		
92.7 ft.	Tap Factory Made Active		9	6		
173.0 ft.	Tap Factory Made Active		1	6		
227.9 ft.	Tap Factory Made Active		11	6		
339.2 ft.	Tap Factory Made Active		9	6		
380.1 ft.	Access Point Manhole M C 5					

M C 5

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

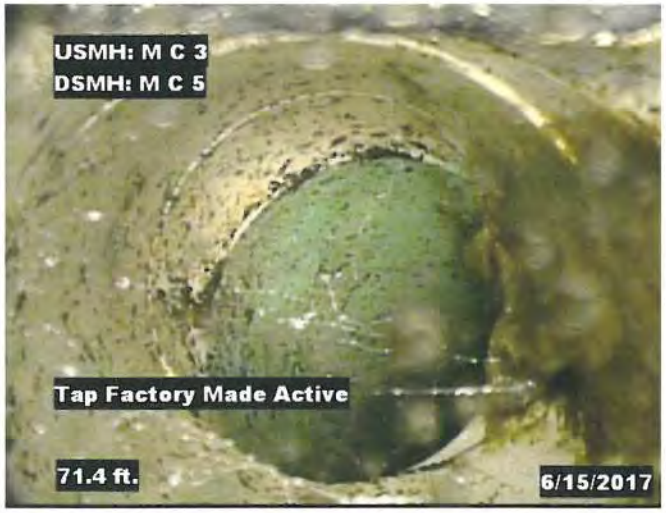
Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 3	M C 5	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	380.1	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 0.0 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 3

Distance: 0.0 ft. **Grade:** 0
Condition: Water Level
Remarks: N/A

Distance: 19.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A



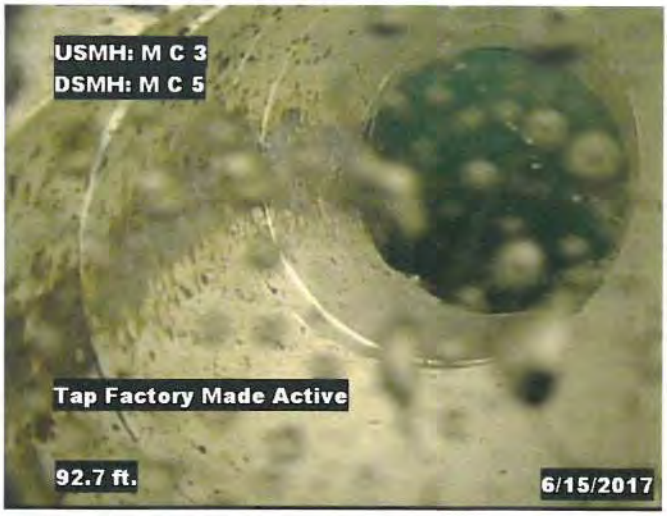
Distance: 71.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 3	M C 5	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	380.1	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 78.7 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A



Distance: 92.7 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

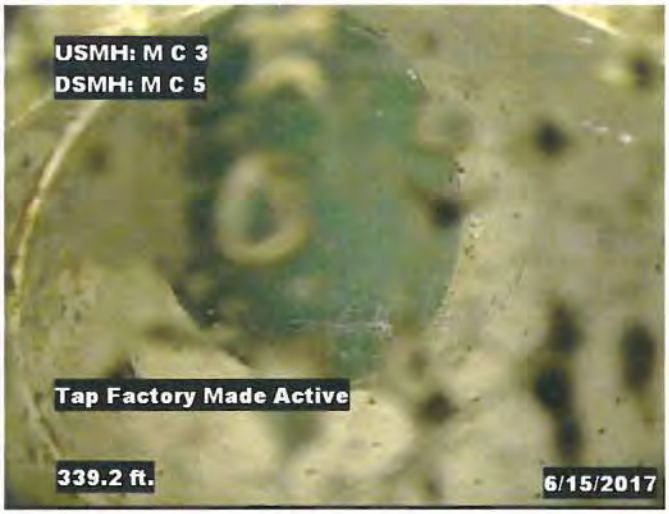
Distance: 173.0 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 227.9 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 3	M C 5	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	380.1	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	



Distance: 339.2 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 380.1 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 5

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Defect Listing Plot Left

Upstream MH	Downstream MH	Street	City	Date	
M C 5	G P A S A	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	370.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

SPR	N/A	SPRI	N/A	Location Code	Sewer Use
MPR	N/A	MPRI	N/A	Light Highway	Sanitary
QSR	N/A	QMR	N/A	Purpose	Flow Control
				Routine Assessment	Not Controlled
OPR		OPRI		Weather / Pre-Cleaning / Date Cleaned	
N/A		N/A		Dry / No Pre-cleaning	
Surveyed By		Certificate Number		Drainage Area	Additional Info
Jerry_K		12345678			
Location Details		Direction		Total Length	Additional_Info_cont
		Downstream		370.5	

M C 5

	Code:	Continuous:	Pos:	Val 1 / 2 :	% :	Gallons:
0.0 ft.	Access Point Manhole M C 5					
0.0 ft.	Water Level				5	
9.1 ft.	Tap Factory Made Active		9	6		
18.7 ft.	Tap Factory Made Active		3	6		
52.4 ft.	Tap Factory Made Active		9	6		
92.4 ft.	Tap Factory Made Active		3	6		
104.5 ft.	Tap Factory Made Active		3	6		
105.4 ft.	Tap Factory Made Active		9	6		
248.6 ft.	Tap Factory Made Active		10	6		
255.2 ft.	Tap Factory Made Active		9	6		
333.0 ft.	Tap Factory Made Active		9	6		
370.5 ft.	Access Point Manhole G P A S A					

G P A S A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 5	G P A S A	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	370.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 0.0 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: M C 5

Distance: 0.0 ft. **Grade:** 0
Condition: Water Level
Remarks: N/A

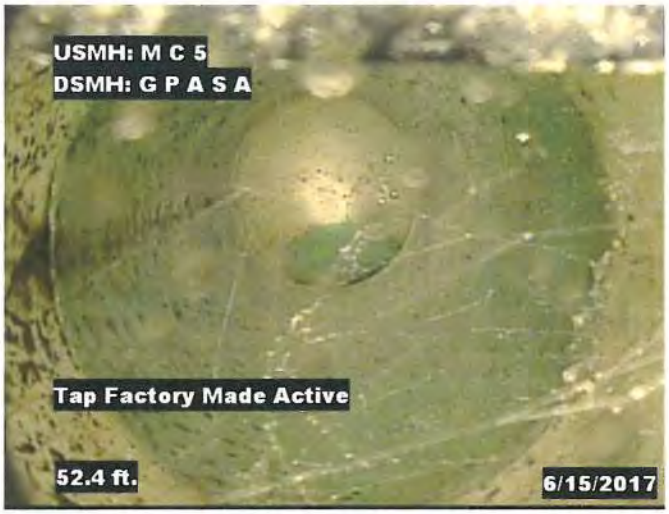
Distance: 9.1 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 18.7 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

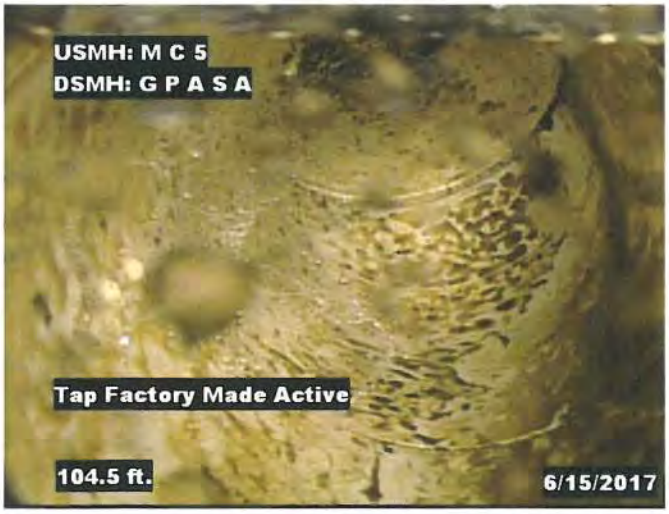
Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 5	G P A S A	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	370.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	



Distance: 52.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 92.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A



Distance: 104.5 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 105.4 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Mr. Rehab
Three Long Lane
Mechanicsburg PA 17050
(717) 697-1242

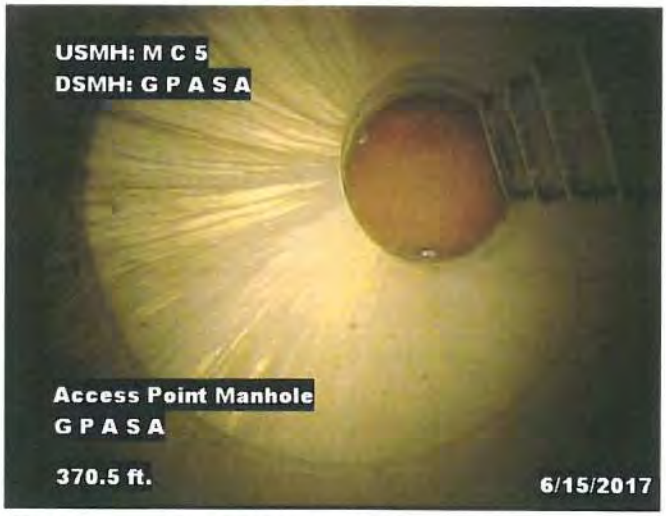
Image Report 4/Page

Upstream MH	Downstream MH	Street	City	Date	
M C 5	G P A S A	Main St	North Manheim	20170615	
Owner		Lining Method	Shape	Length surveyed	
North Manheim Township			Circular	370.5	
Customer		Material	Pipe Joint Length	Diameter/H...	Width
Systems Design Engineering Inc		Polyvinyl Chloride	10	8	

Distance: 248.6 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 255.2 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A

Distance: 333.0 ft. **Grade:** 0
Condition: Tap Factory Made Active
Remarks: N/A



Distance: 370.5 ft. **Grade:** 0
Condition: Access Point Manhole
Remarks: G P A S A

SANITARY SEWER MANHOLE INSPECTION REPORTS AND PHOTOS

SYSTEMS DESIGN ENGINEERING, INC.

NORTH MANHEIM TOWNSHIP

Mr. REHAB
SEWER SYSTEM REHABILITATION

JUNE, 2017

Mr. Rehab, Inc.
THREE LONG LANE, MECHANICSBURG, PA 17050

PL 1,2,3,4,5,6

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: North Manheim
MANHOLE #: MH 3
REF. JOB #:
DATE: 6-15-17
STREET / LOCATION: Main St
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Jerry

INSPECTION TYPE: ☑ Top Side ☐ Entered Manhole

LOCATION: ☐ Right-of-Way ☐ State Highway ☐ Township Road ☑ Borough/City St ON SHOULDER: ☐ Yes ☐ No

SPECIAL CONDITIONS: ☐ High Traffic Area ☐ Low Oxygen Level ☐ Explosive Conditions

ACCESS: ☐ Not Located ☐ Buried - Pavement ☐ Buried - Stone ☐ Buried - Earth ☐ Other:

COVER / FRAME: ☑ Accepts Surface Water ☐ Bolt Down Cover Holes in Cover Exist #( ) Size (in)

☐ Frame Broken ☐ Frame Offset (0 in) Inside Frame Clear Opening Diameter (in)

☐ Rim Above (+) or Below(-) Grade (in) Cover Diameter / Thickness (/ in) ☐ Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	1	1	3	2	1	2	2	
CONDITION (Legend)	2	2		2	2	2	2	
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other:

MANHOLE CONDITIONS

(Check all applicable boxes)

☐ Cleaning Required
☐ Root Penetration
☐ Evidence of Surcharging
☐ Evidence of Overflow
☐ Steps need Replaced
☐ Other (explain below)

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)	8			8
PIPE TYPE	5			5
ROOT PENETRATION	1			1
RATING OF PIPE - STRUCTURE	2			2
RATING OF PIPE - ALIGNMENT	2			2
ESTIMATED LEAKAGE AMOUNT (GPD)	0			0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

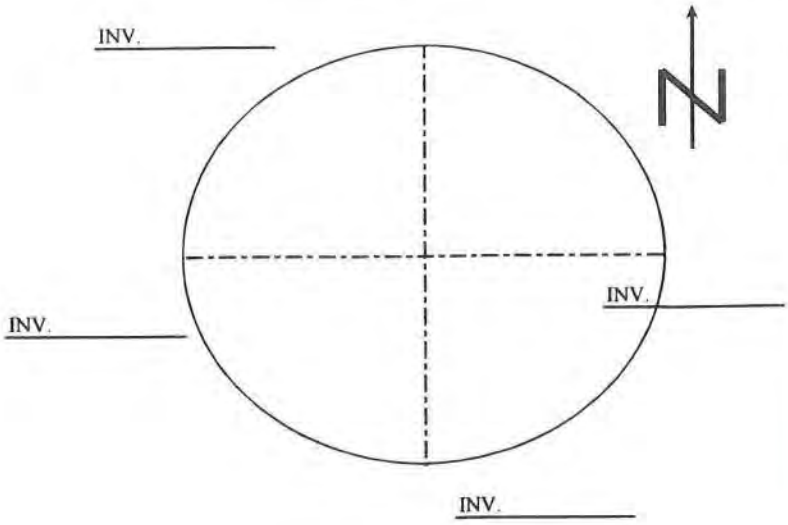
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

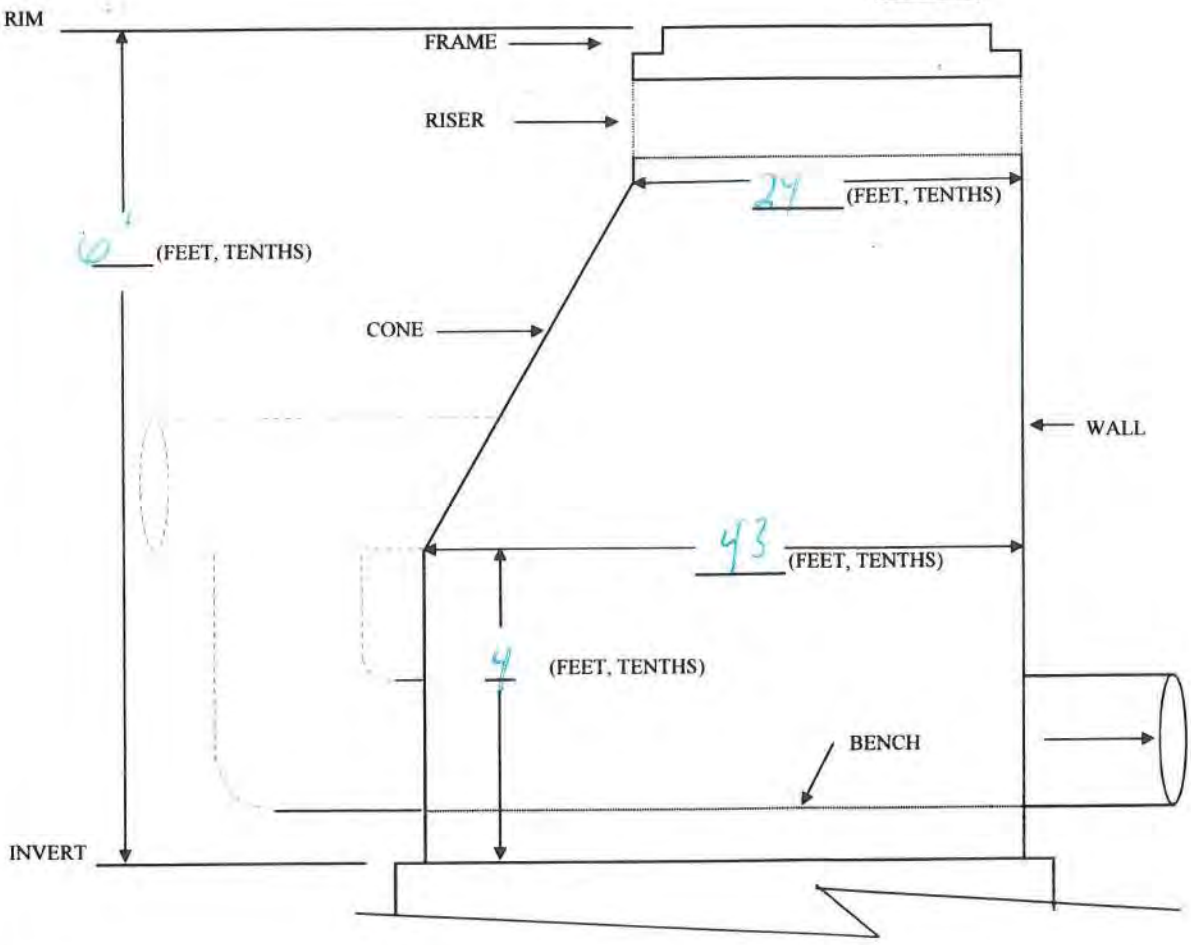
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH
ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS: No MH Issue

Pg. 7, 8, 9, 10, 11, 12, 13

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: North Manheim
MANHOLE #: MH 3
REF. JOB #:
DATE: 6-15-17
STREET / LOCATION: Main St.
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Nathan, Terry

INSPECTION TYPE: ☑ Top Side ☐ Entered Manhole

LOCATION: ☐ Right-of-Way ☐ State Highway ☐ Township Road ☑ Borough/City St ON SHOULDER: ☐ Yes ☐ No

SPECIAL CONDITIONS: ☐ High Traffic Area ☐ Low Oxygen Level ☐ Explosive Conditions

ACCESS: ☐ Not Located ☐ Buried - Pavement ☐ Buried - Stone ☐ Buried - Earth ☐ Other:

COVER / FRAME: ☑ Accepts Surface Water ☐ Bolt Down Cover Holes in Cover Exist #( ) Size (in)

☐ Frame Broken ☐ Frame Offset (0 in) Inside Frame Clear Opening Diameter (in)

☐ Rim Above (+) or Below(-) Grade (in) Cover Diameter / Thickness (/ in) ☐ Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	1	1	5	2	1	2	2	
CONDITION (Legend)	2	2		3	3	3	3	
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other:

MANHOLE CONDITIONS

(Check all applicable boxes)

☐ Cleaning Required
☐ Root Penetration
☐ Evidence of Surcharging
☐ Evidence of Overflow
☐ Steps need Replaced
☐ Other (explain below)

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)	8	8		8
PIPE TYPE	5	5		5
ROOT PENETRATION	1	1		1
RATING OF PIPE - STRUCTURE	1	1		1
RATING OF PIPE - ALIGNMENT	1	1		1
ESTIMATED LEAKAGE AMOUNT (GPD)	0	0		0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

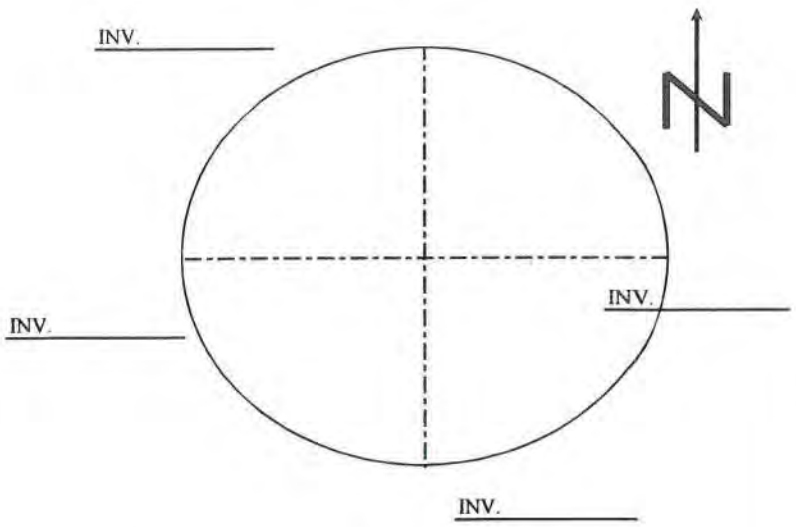
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

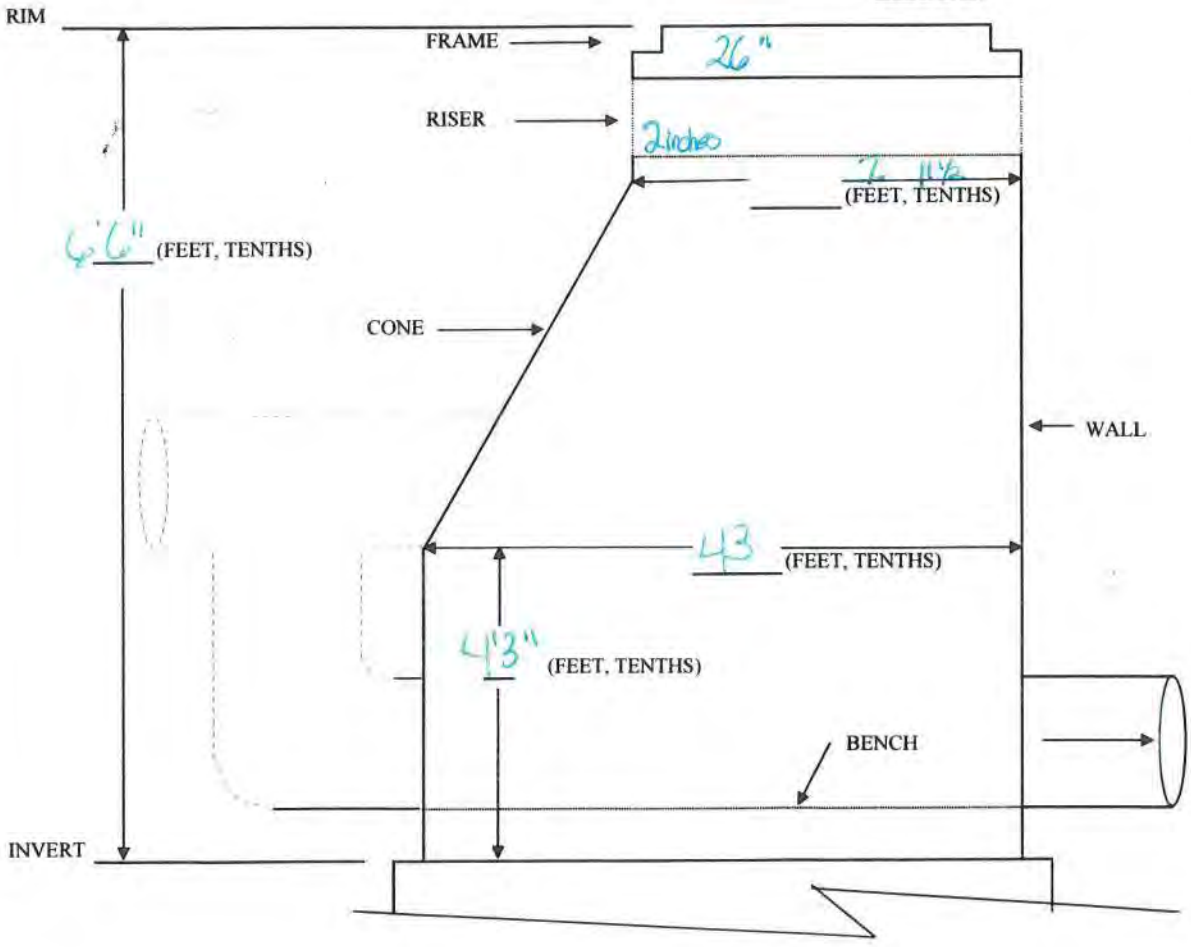
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH
ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS:

No manhole Invert

Pic. 14, 15, 16, 17, 18

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: North Manheim
MANHOLE #: Mc. 3A
REF. JOB #:
DATE: 6-15-17
STREET / LOCATION: Main St PMH
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Nathan Terry

INSPECTION TYPE: [✓] Top Side [ ] Entered Manhole

LOCATION: [ ] Right-of-Way [ ] State Highway [ ] Township Road [✓] Borough/City St ON SHOULDER: [ ] Yes [ ] No

SPECIAL CONDITIONS: [ ] High Traffic Area [ ] Low Oxygen Level [ ] Explosive Conditions

ACCESS: [ ] Not Located [ ] Buried - Pavement [ ] Buried - Stone [ ] Buried - Earth [ ] Other: _____

COVER / FRAME: [✓] Accepts Surface Water [ ] Bolt Down Cover Holes in Cover Exist #(_____) Size (_____ in)

[ ] Frame Broken [ ] Frame Offset (___ in) Inside Frame Clear Opening Diameter (_____ in)

[ ] Rim Above (+) or Below(-) Grade (_____ in) Cover Diameter / Thickness (_____ / _____ in) [ ] Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	7	1		2	1	2	2	
CONDITION (Legend)	3	2		2	2	2	2	
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)
_____

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)
_____

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other: _____

MANHOLE CONDITIONS

(Check all applicable boxes)

[ ] Cleaning Required
[ ] Root Penetration
[ ] Evidence of Surcharging
[ ] Evidence of Overflow
[ ] Steps need Replaced
[ ] Other (explain below)
_____

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)				8 inch
PIPE TYPE				5
ROOT PENETRATION				1
RATING OF PIPE - STRUCTURE				1
RATING OF PIPE - ALIGNMENT				1
ESTIMATED LEAKAGE AMOUNT (GPD)				0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)
_____

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

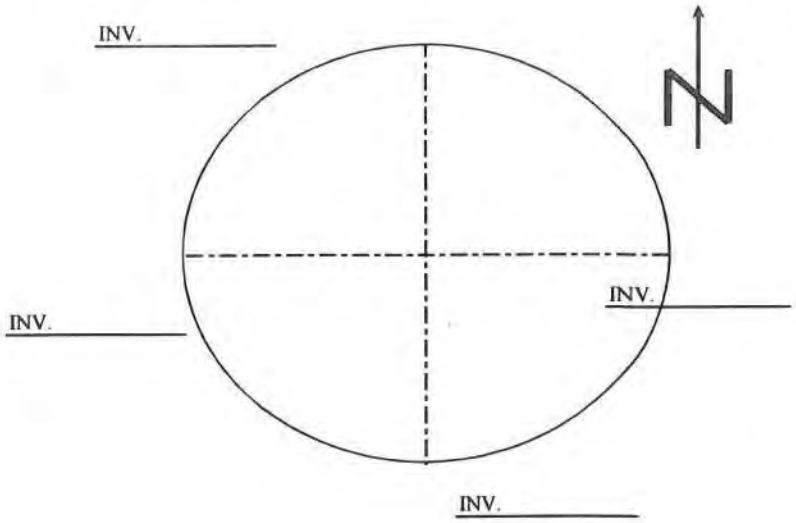
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

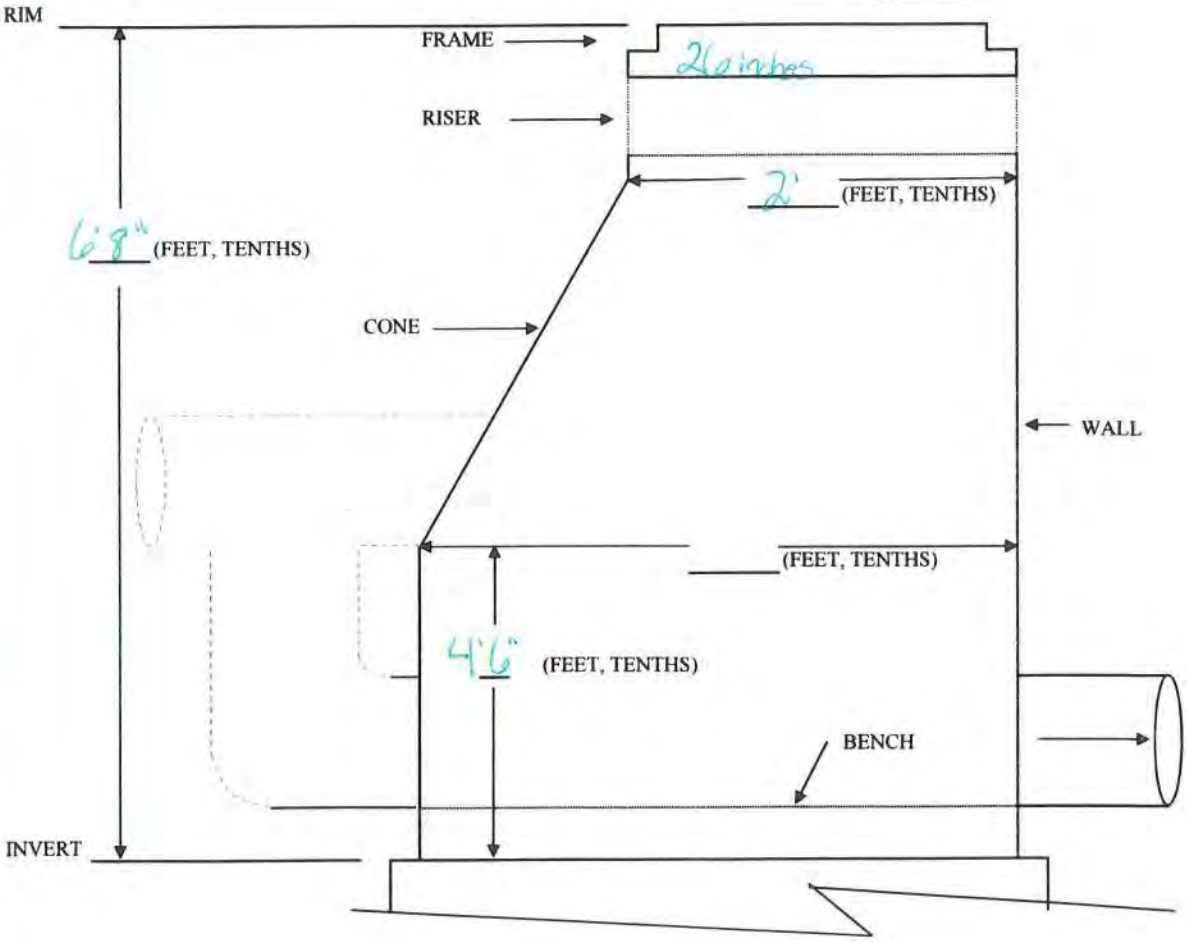
POINT OF LEAKAGE: (X)

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH
ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS:

No MH insert

Dec. 19, 2019

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: Penn Northern
MANHOLE #: MH5
REF JOB #:
DATE: 6-15-17
STREET / LOCATION: Main St.
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Nathan Terry

INSPECTION TYPE: [x] Top Side [ ] Entered Manhole

LOCATION: [ ] Right-of-Way [ ] State Highway [ ] Township Road [x] Borough/City St ON SHOULDER: [ ] Yes [ ] No

SPECIAL CONDITIONS: [ ] High Traffic Area [ ] Low Oxygen Level [ ] Explosive Conditions

ACCESS: [ ] Not Located [ ] Buried - Pavement [ ] Buried - Stone [ ] Buried - Earth [ ] Other: _____

COVER / FRAME: [x] Accepts Surface Water [ ] Bolt Down Cover Holes in Cover Exist #(_____) Size (_____ in)

[ ] Frame Broken [ ] Frame Offset (0 in) Inside Frame Clear Opening Diameter (_____ in)

[ ] Rim Above (+) or Below(-) Grade (_____ in) Cover Diameter / Thickness (_____ / _____ in) [ ] Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	1		1	4	2	1	2	2	
CONDITION (Legend)	3		3	2	1	1	1	1	
ESTIMATED LEAKAGE RATE (GPD)									

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)
_____

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)
_____

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other: _____

MANHOLE CONDITIONS

(Check all applicable boxes)

[ ] Cleaning Required
[ ] Root Penetration
[ ] Evidence of Surcharging
[ ] Evidence of Overflow
[ ] Steps need Replaced
[ ] Other (explain below)
_____

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)	6			8
PIPE TYPE	5			5
ROOT PENETRATION	1			1
RATING OF PIPE - STRUCTURE	1			1
RATING OF PIPE - ALIGNMENT	1			1
ESTIMATED LEAKAGE AMOUNT (GPD)	0			0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)
_____

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

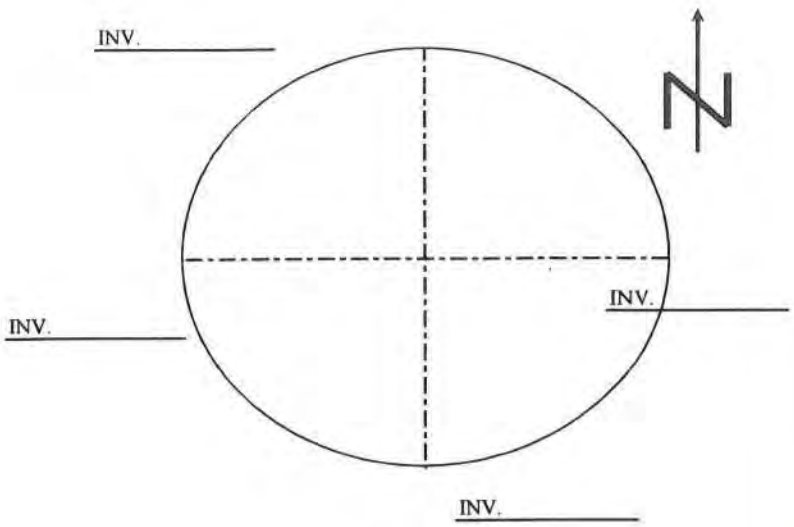
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

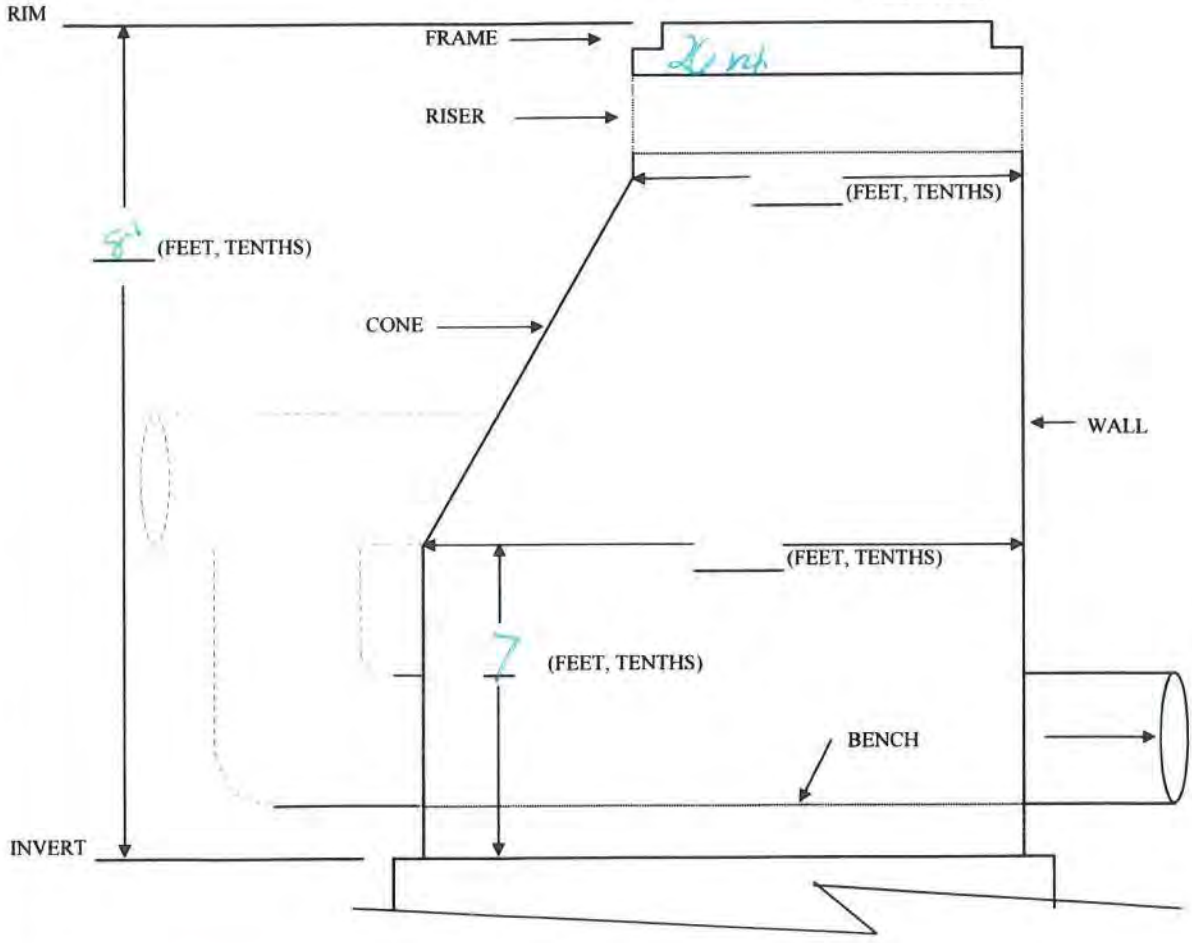
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS:

No Insert

Pipe 24, 25, 26, 27, 28, 29

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: NC-11 Naval

MANHOLE #: GP25-11

REF. JOB #:

DATE: 6-15-17

STREET / LOCATION: Main St.

CONTRACTOR:

DRAINAGE AREA:

INSPECTOR: Nathan Terry

INSPECTION TYPE: ☑ Top Side ☐ Entered Manhole

LOCATION: ☐ Right-of-Way ☐ State Highway ☐ Township Road ☑ Borough/City St ON SHOULDER: ☐ Yes ☐ No

SPECIAL CONDITIONS: ☐ High Traffic Area ☐ Low Oxygen Level ☐ Explosive Conditions

ACCESS: ☐ Not Located ☐ Buried - Pavement ☐ Buried - Stone ☐ Buried - Earth ☐ Other:

COVER / FRAME: ☑ Accepts Surface Water ☐ Bolt Down Cover Holes in Cover Exist #( ) Size (in)

☐ Frame Broken ☐ Frame Offset (0 in) Inside Frame Clear Opening Diameter (in)

☐ Rim Above (+) or Below(-) Grade (in) Cover Diameter / Thickness (/ in) ☐ Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	1	1	5	2	1	2	2	
CONDITION (Legend)	2	2		2	2	2	1	
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other:

MANHOLE CONDITIONS

(Check all applicable boxes)

☐ Cleaning Required
☐ Root Penetration
☐ Evidence of Surcharging
☐ Evidence of Overflow
☐ Steps need Replaced
☐ Other (explain below)

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)	8			8
PIPE TYPE	5			5
ROOT PENETRATION	1			1
RATING OF PIPE - STRUCTURE	1			1
RATING OF PIPE - ALIGNMENT	1			1
ESTIMATED LEAKAGE AMOUNT (GPD)	0			0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

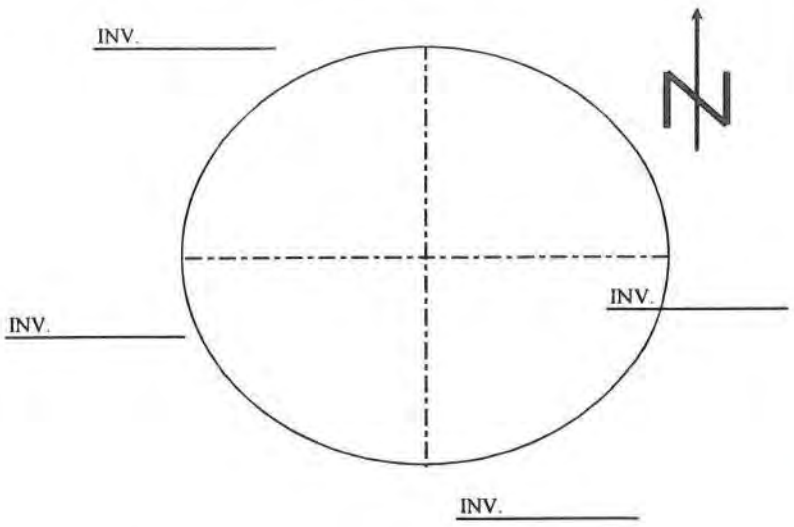
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

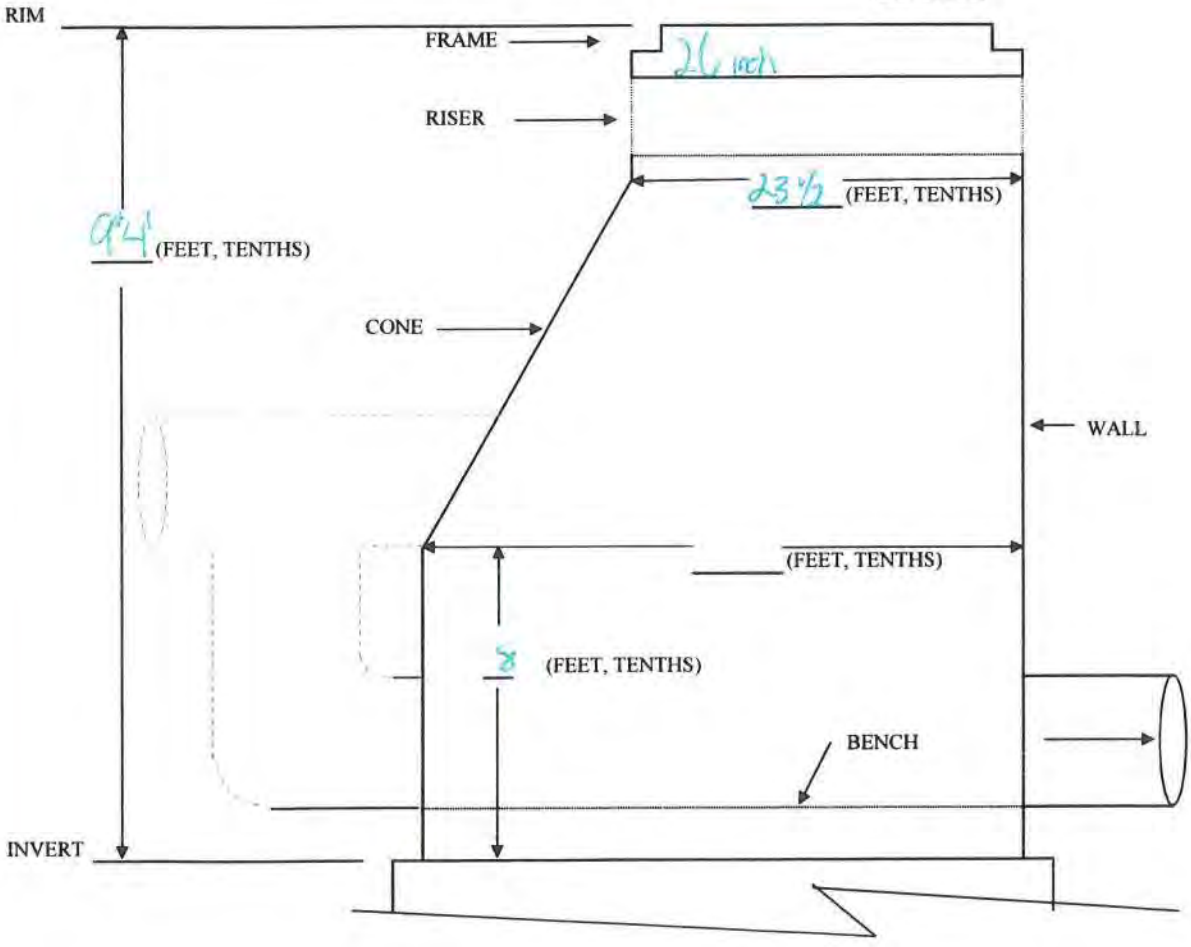
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH
ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS:

No MH Insert

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: North Madison
MANHOLE #: Mc. 4
REF. JOB #:
DATE: 6-15-17
STREET / LOCATION: Main St.
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Nathan Terry

INSPECTION TYPE: ☐ Top Side ☐ Entered Manhole

LOCATION: ☐ Right-of-Way ☐ State Highway ☐ Township Road ☐ Borough/City St ON SHOULDER: ☐ Yes ☐ No

SPECIAL CONDITIONS: ☐ High Traffic Area ☐ Low Oxygen Level ☐ Explosive Conditions

ACCESS: ☐ Not Located ☐ Buried - Pavement ☐ Buried - Stone ☐ Buried - Earth ☐ Other:

COVER / FRAME: ☐ Accepts Surface Water ☐ Bolt Down Cover Holes in Cover Exist #(____) Size (____ in)

☐ Frame Broken ☐ Frame Offset (____ in) Inside Frame Clear Opening Diameter (____ in)

☐ Rim Above (+) or Below(-) Grade (____ in) Cover Diameter / Thickness (____ / ____ in) ☐ Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)	1		1					
CONDITION (Legend)								
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)
_____

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)
_____

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other: _____

MANHOLE CONDITIONS

(Check all applicable boxes)

☐ Cleaning Required
☐ Root Penetration
☐ Evidence of Surcharging
☐ Evidence of Overflow
☐ Steps need Replaced
☐ Other (explain below)
_____

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)	8			8
PIPE TYPE	5			5
ROOT PENETRATION	1			1
RATING OF PIPE - STRUCTURE	1			1
RATING OF PIPE - ALIGNMENT	1			1
ESTIMATED LEAKAGE AMOUNT (GPD)	0			0

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)
_____

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

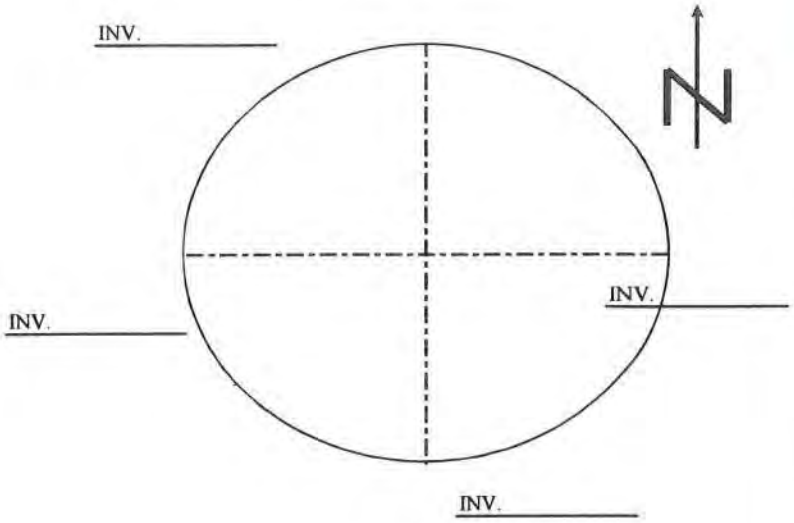
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

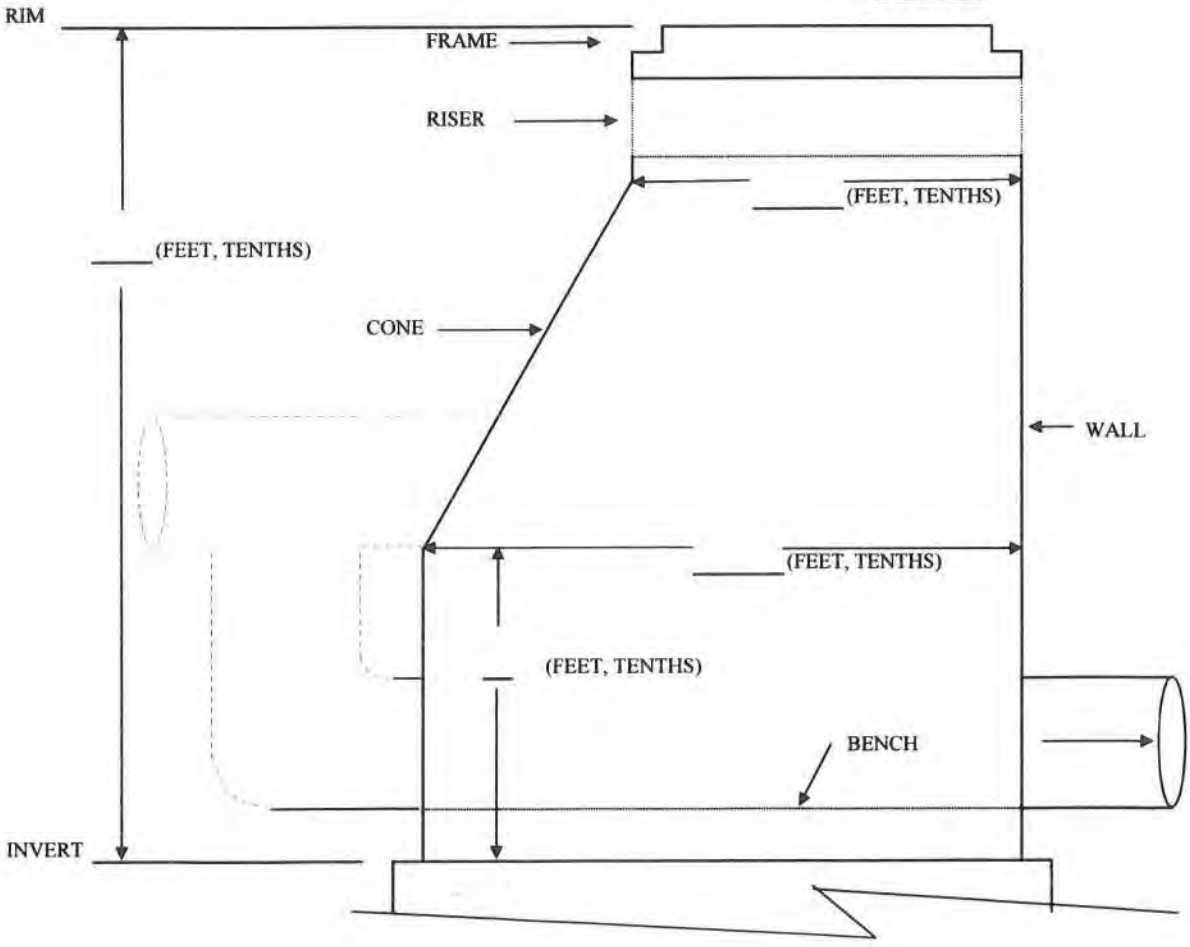
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH
ADD ADDITIONAL INVERTS, IF NECESSARY



TOP VIEW



PROFILE

COMMENTS:

Manhole Locked closed Pic 30,31

DETAILED MANHOLE INSPECTION FORM (FRONT)

CLIENT: North Hanover
MANHOLE #: MH 1
REF. JOB #:
DATE: 6-15-17
STREET / LOCATION:
CONTRACTOR:
DRAINAGE AREA:
INSPECTOR: Nathan Terry

INSPECTION TYPE: ☐ Top Side ☐ Entered Manhole

LOCATION: ☐ Right-of-Way ☐ State Highway ☐ Township Road ☐ Borough/City St ON SHOULDER: ☐ Yes ☐ No

SPECIAL CONDITIONS: ☐ High Traffic Area ☐ Low Oxygen Level ☐ Explosive Conditions

ACCESS: ☐ Not Located ☐ Buried - Pavement ☐ Buried - Stone ☐ Buried - Earth ☐ Other:

COVER / FRAME: ☐ Accepts Surface Water ☐ Bolt Down Cover Holes in Cover Exist #( ) Size (in)

☐ Frame Broken ☐ Frame Offset (in) Inside Frame Clear Opening Diameter (in)

☐ Rim Above (+) or Below(-) Grade (in) Cover Diameter / Thickness (/ in) ☐ Insert Exists

ITEM:	Cover	Frame	Riser	Cone / Walls	Steps	Bench	Channel	Drop Connection
TYPE (See Legend)								
CONDITION (Legend)								
ESTIMATED LEAKAGE RATE (GPD)								

MANHOLE LEGEND

CONDITION:
1 = Excellent
2 = Good
3 = Fair
4= Poor
5 = Extremely Poor

RISER TYPE:
1 = Brick
2 = Block
3 = Concrete
4 = Grade Rings
5 = None

BENCH TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = Brick
4 = None

STEP TYPE:
1 = Fiberglass
2 = Aluminum
3 = Iron
4 = None
5 = Other (explain)

COVER / FRAME TYPE:
1 = Standard
2 = Watertight
3 = Lamp Hole

CONE / WALL TYPE:
1 = Brick
2 = Pre-Cast
3 = Poured Concrete
4 = Block
5 = Parged Brick
6 = Parged Block
7 = Other (explain below)

CHANNEL TYPE:
1 = Poured in Place
2 = Pre-Cast
3 = VCP
4 = ACP
5 = RCP
6 = CIP / DIP
7 = PVC
8 = Brick
9 = None
10 = Other
Explain Other:

MANHOLE CONDITIONS

(Check all applicable boxes)

☐ Cleaning Required
☐ Root Penetration
☐ Evidence of Surcharging
☐ Evidence of Overflow
☐ Steps need Replaced
☐ Other (explain below)

PIPE INFORMATION

	INFLUENT PIPES			EFFLUENT PIPE
	UP MH:	UP MH:	UP MH:	DOWN MH:
DIAMETER OF PPE (INCHES)				
PIPE TYPE				
ROOT PENETRATION				
RATING OF PIPE - STRUCTURE				
RATING OF PIPE - ALIGNMENT				
ESTIMATED LEAKAGE AMOUNT (GPD)				

PIPE LEGEND

PIPE TYPE:
1 = VCP 4 = CIP or DIP
2 = ACP 5 = PVC
3 = RCP 6 = Brick
7 = Other (explain below)

ROOT PENETRATION:
1 = None
2 = Minor
3 = Moderate
4 = Severe

RATING - STRUCTURE:
1 = Good
2 = Fair
3 = Poor

RATING - ALIGNMENT:
1 = no misalignment
2 = minor misalignment
3 = moderate misalignment
4 = severe misalignment

(MANHOLE SKETCH ON BACK)

SDE

DETAILED MANHOLE INSPECTION FORM (BACK)

MANHOLE SKETCH:

MARK POINTS OF LEAKAGE AND LOCATION OF INFLUENT LINES, INCLUDING IDENTIFIED SERVICE CONNECTIONS.

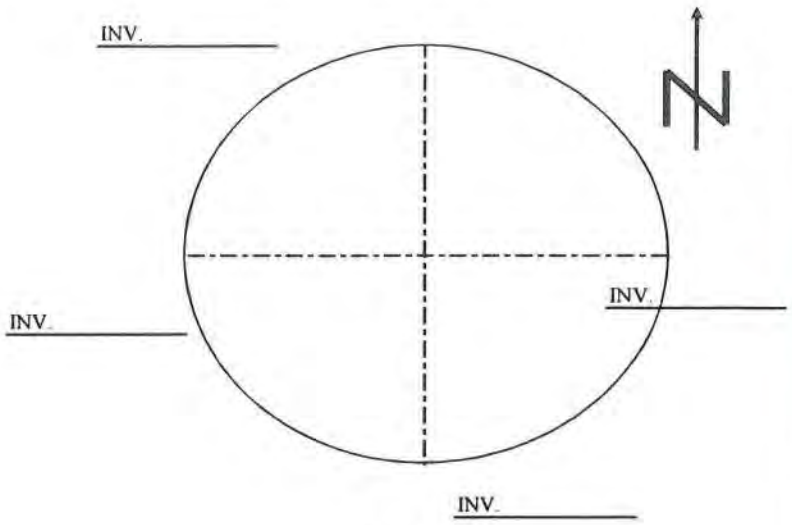
MARK AS:

GENERAL AREA OF LEAKAGE: ▭

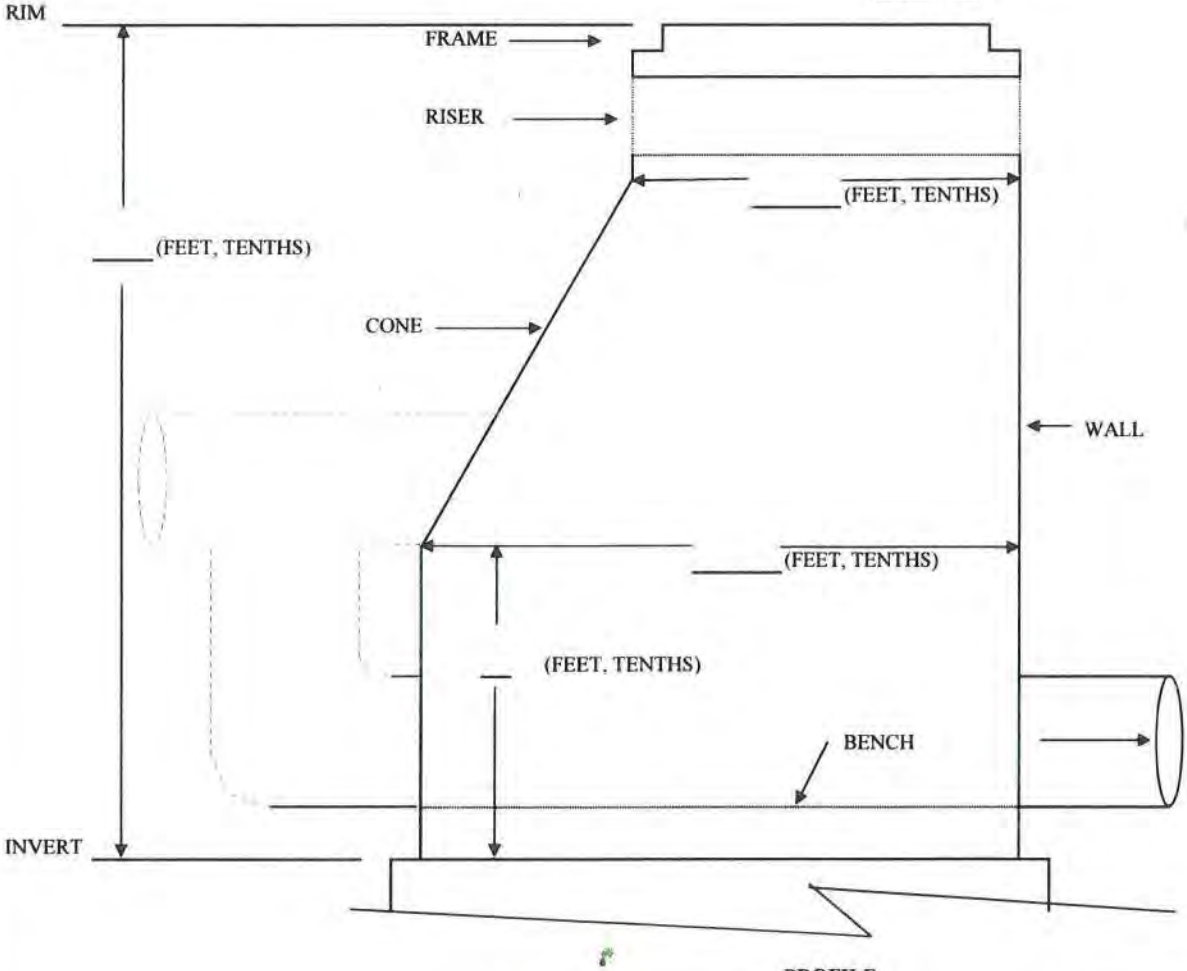
POINT OF LEAKAGE: X

DRAW ALL LINES & FLOW DIRECTION ARROWS

INVERT MEASUREMENTS ARE FROM RIM OF MH ADD ADDITIONAL INVERTS, IF NECESSARY

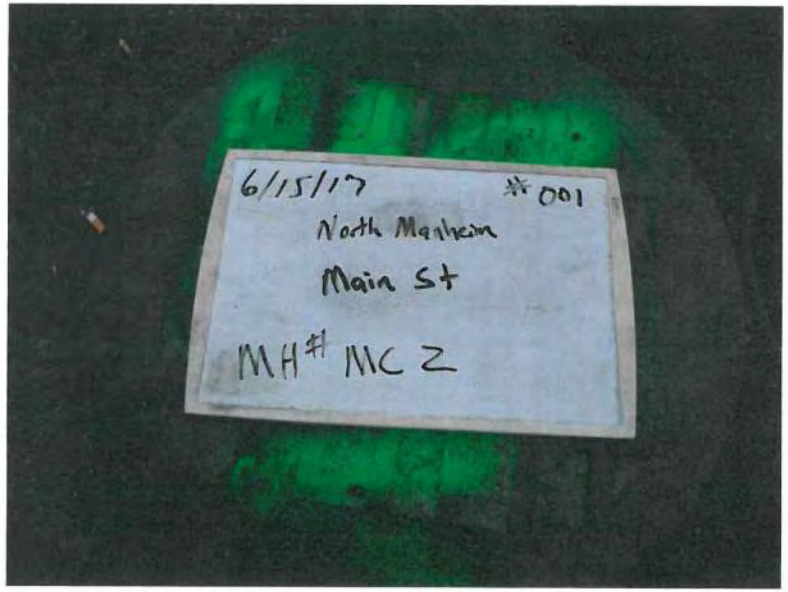


TOP VIEW

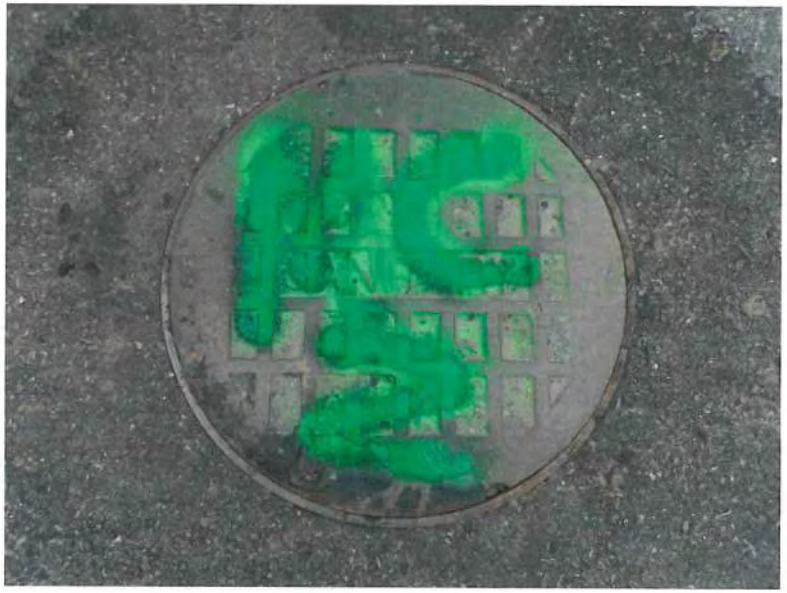


PROFILE

COMMENTS:



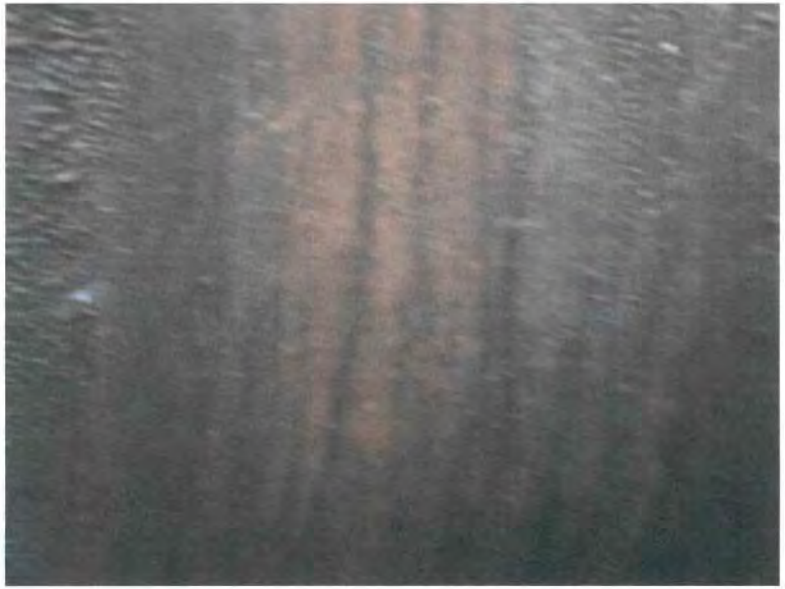
Pic 001



Pic 002

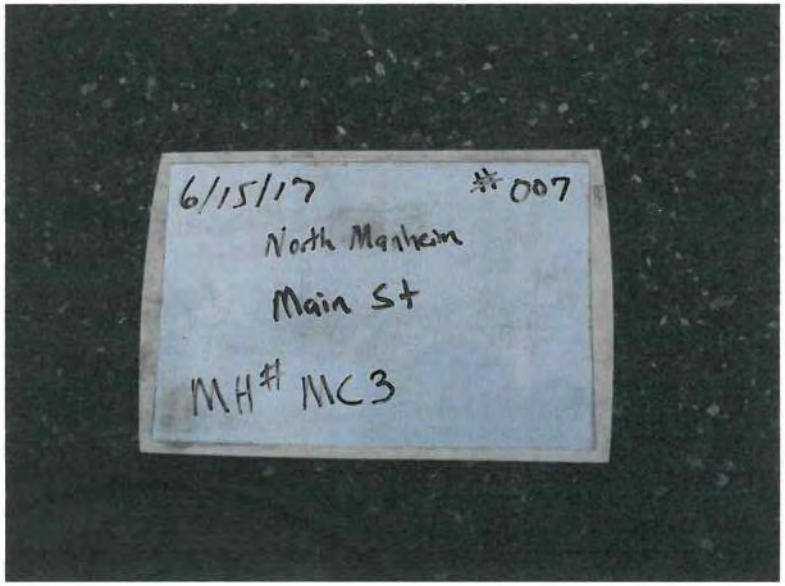
Pic 003

Pic 004



Pic 005

Pic 006



Pic 007

Pic 008

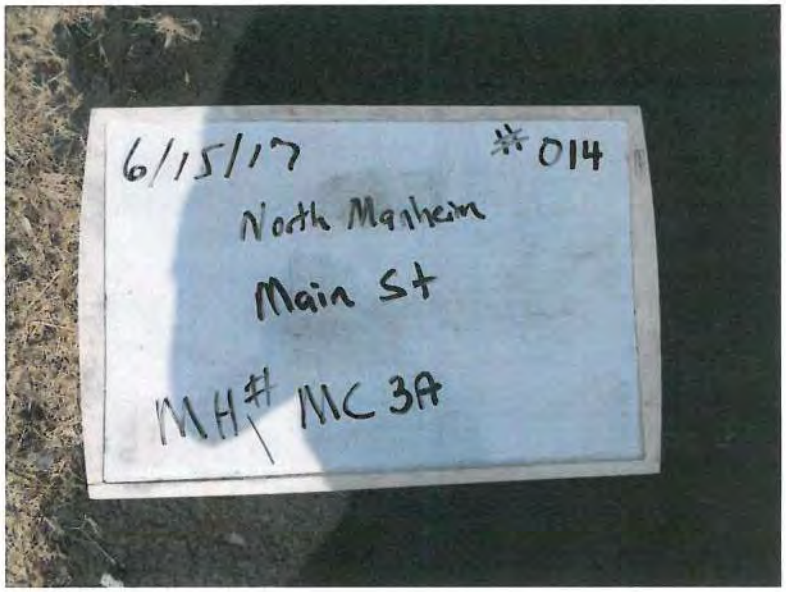
Pic 009

Pic 010

Pic 011

Pic 012

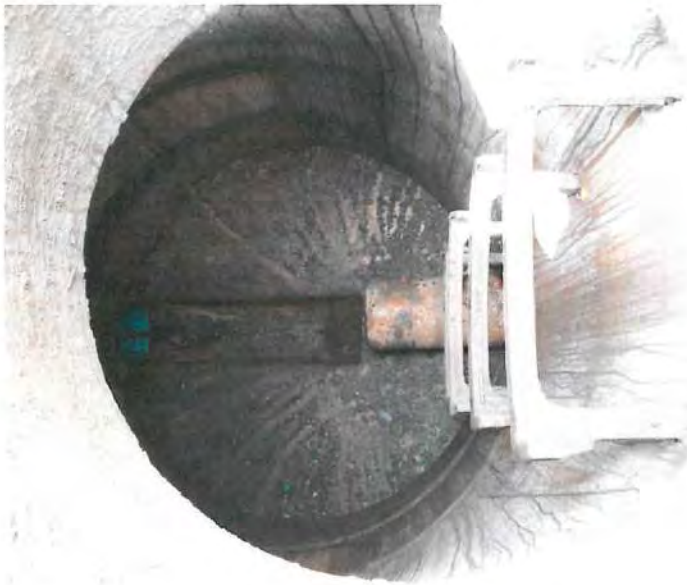
Pic 013



Pic 014

Pic 015

Pic 016



Pic 017

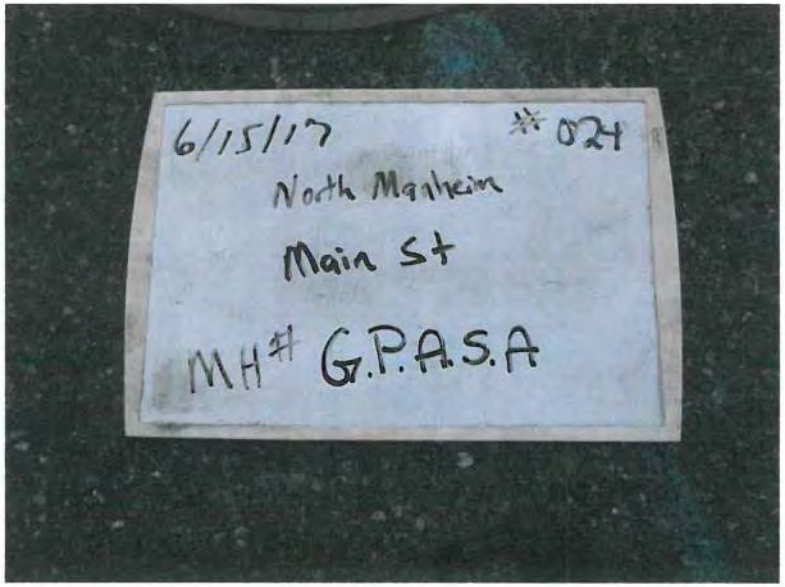
Pic 018

Pic 019

Pic 020

Pic 021

Pic 022



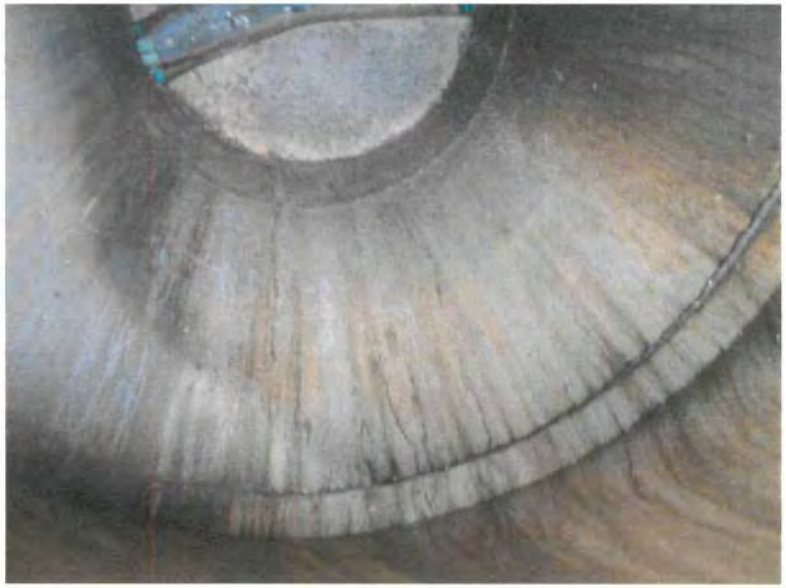
Pic 024

Pic 025

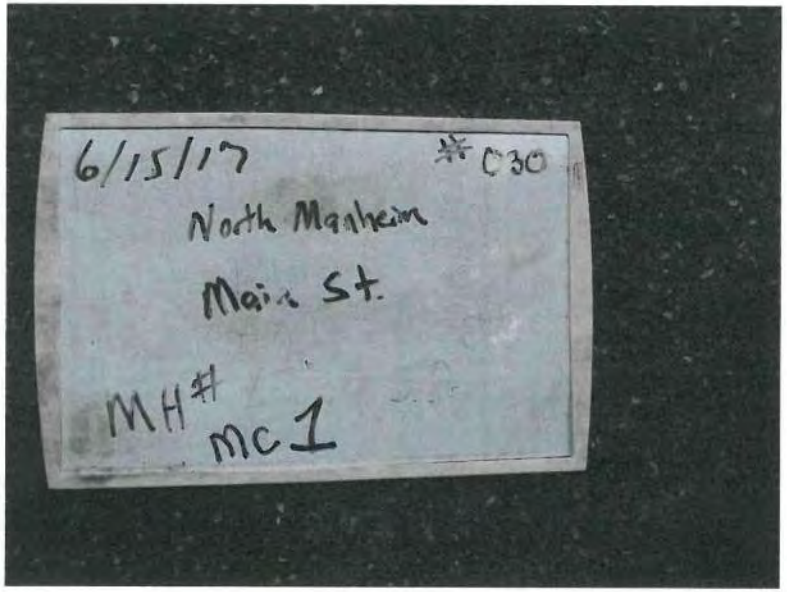
Pic 026

Pic 027

Pic 028



Pic 029



Pic 030

Pic 031

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix D ■ North Manheim Township Sewer Use Ordinance

CHAPTER 12
SEWERS & SEWAGE DISPOSAL
PART A
NMTA Sewer Pretreatment and Discharge

AN ORDINANCE OF THE TOWNSHIP OF NORTH MANHEIM REGULATING THE PRETREATMENT AND DISCHARGE OF WASTEWATER; GRANTING THE NORTH MANHEIM TOWNSHIP AUTHORITY ("AUTHORITY") THE POWER TO PROMULGATE RULES AND REGULATIONS FOR THE PRETREATMENT AND DISCHARGE OF WASTEWATER; DESIGNATING THE BOROUGH OF SCHUYLKILL HAVEN AS AGENT OF THE TOWNSHIP AND AUTHORITY FOR PURPOSES OF IMPLEMENTATION AND ENFORCEMENT HEREOF FOR THAT PORTION OF THE SEWAGE SYSTEM OF THE AUTHORITY CONNECTED TO THE SEWAGE SYSTEM OF SCHUYLKILL HAVEN; DESIGNATING THE GREATER POTTSVILLE AREA SEWER AUTHORITY AS AGENT OF THE TOWNSHIP AND AUTHORITY FOR PURPOSES OF IMPLEMENTATION AND ENFORCEMENT HEREOF FOR THAT PORTION OF THE SEWAGE SYSTEM OF THE AUTHORITY COMMECTED TO THE SEWAGE SYSTEM OF THE GREATER POTTSVILLE AREA SEWER AUTHORITY; DESIGNATING THE CRESSONA BOROUGH AUTHORITY AS AGENT OF THE TOWNSHIP AND AUTHORITY FOR PURPOSES OF IMPLEMENTATION AND ENFORCEMENT HEREOF FOR THAT PORTION OF THE SEWAGE SYSTEM OF THE AUTHORITY CONNECTED TO THE SEWAGE SYSTEM OF THE CRESSONA BOROUGH AUTHORITY; AND PROVIDING FOR ENFORCEMENT THEREOF. **[Adopted 10/28/97 by Ord. #73; Amended 3/8/12 by Ord. #124]**

BE IT ENACTED AND ORDAINED by the Board of Supervisors of the Township of North Manheim Schuylkill County, Pennsylvania, and it is hereby enacted and ordained by authority of the same as follows:

PART I
PURPOSE, DEFINITIONS AND MISCELLANEOUS PROVISIONS

SECTION 1. PURPOSE.

Users of the Authority sewage system currently contribute wastewater including industrial waste which is ultimately discharged to the Publicly Owned Treatment Works (i) owned by the Schuylkill Haven authority and operated by Schuylkill Haven, (ii) owned and operated by the Cressona Authority, and (iii) owned and operated by the Greater Pottsville Area Sewer Authority. The Township recognizes that each of the owners of those Publicly Owned Treatment Works must implement and enforce a pre-treatment program to control industrial waste pursuant to 40 C.F.R. Part 403 and Pennsylvania environmental laws and regulations. To that end, the Township adopts this Ordinance consistent therewith.

SECTION 2. DEFINITIONS.

As used in this Ordinance, the following terms shall have the meanings indicated, unless a different meaning clearly appears from the context:

Authority – the North Manheim Township Authority, acting through the Board of the North Manheim Township Authority.

Cressona Authority – the Cressona Borough Authority, acting through the Board of the Cressona Borough Authority.

Greater Pottsville Area Sewer Authority – the Greater Pottsville Area Sewer Authority, acting through the Board of the Greater Pottsville Area Sewer Authority.

Schuylkill Haven – the Borough of Schuylkill Haven, Schuylkill County, Pennsylvania, acting through the Borough Council of the Borough of Schuylkill Haven.

Schuylkill Haven Authority – the Schuylkill Haven Municipal Authority, acting through the Board of the Schuylkill Haven Municipal Authority.

Schuylkill Haven Inter-Municipal Agreement – that certain Inter-Municipal Sewage Agreement, dated august 18, 1992, by and among the Borough, Authority and Township, with the consent of the Borough Authority, as amended by that certain Amendment No. 1 to Inter-Municipal Sewage Agreement, dated October 11, 1995 and Ordinance 1065 dated August 17, 2011, by and among the Borough, Borough Authority, Township, and Township Authority, both of which are incorporated herein by reference and are hereby ratified.

Sewage System of the Authority – all facilities of the Authority now or hereafter located in the Township for the purposes of transporting Sewage to the Sewer System of Schuylkill Haven, the Sewage System of Cressona Authority, and the Sewage System of the Greater Pottsville Area Sewer Authority.

Sewage System of the Cressona Authority – all facilities of the Cressona Authority for collecting, transporting and treating sewage to and at the sewage treatment plant of the Cressona Authority, and any extensions or addition thereto.

Sewage System of the Greater Pottsville Area Sewer Authority – all facilities of the Greater Pottsville Sewer Authority for collecting, transporting and treating sewage to and at the sewage treatment plant(s) of the Greater Pottsville Area Sewer Authority, and any extensions or addition thereto.

Sewage System of Schuylkill Haven – all facilities Schuylkill Haven and/or the Schuylkill Haven Authority for collecting, transporting and treating sewage to and at the sewage treatment plant of Schuylkill Haven and/or Schuylkill and any extensions or addition thereto.

Township – the Township of North Manheim, Schuylkill County, Pennsylvania, acting through the Board of Supervisors of North Manheim Township.

In this Ordinance, the singular shall include the plural; the plural shall include the singular; and the masculine shall include the feminine and neuter.

SECTION 3. REPEALER.

All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed.

SECTION 4. SEVERABILITY.

If any sentence, clause, section or part of this ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance.

SECTION 5. EFFECTIVE DATE.

This Ordinance shall become effective on enactment.

CHAPTER 12
SEWERS & SEWAGE DISPOSAL
PART A
NMTA Sewer Pretreatment and Discharge

PART 2
REGULATIONS FOR PRETREATMENT AND DISCHARGE OF WASTEWATER

SECTION 1. AUTHORITY TO ESTABLISH RULES AND REGULATIONS.

The Township grants the Authority the power, by resolution consistent herewith, to establish rules and regulations from time to time for the issuance of wastewater discharge permits; the monitoring of compliance and enforcement activities; administrative review procedures; requirements for user reporting; the setting of fees for the equitable distribution of costs resulting from the program established herein; and any other rules and regulations necessary to fulfill the stated purposes of this Ordinance. Such rules and regulations, to the extent appropriate, shall be construed as part of this Ordinance. Any resolutions adopted by the Authority pursuant to this Ordinance relating to the Sewage System of Schuylkill Haven shall comply with the requirements of and be consistent with the Inter-Municipal Agreement.

PART 3
DESIGNATION OF AGENTS

SECTION 1. DESIGNATION OF CRESSONA AUTHORITY AS AGENT.

The Township designates the Cressona Authority as the agent of the Township and the Authority for the purposes of implementation and enforcement of this Ordinance and any resolution(s) adopted by the Authority pursuant to the authority granted in Section 201 hereof, against users located in the Township and connected to any portion of the Sewage System of the Authority which is or may in the future be connected and discharge to the Sewage System of the Cressona Authority.

SECTION 2. DESIGNATION OF THE GREATER POTTSVILLE AREA SEWER AUTHORITY AS AGENT.

The Township designates the Greater Pottsville Area Sewer Authority as the agent of the Township and the Authority for the purposes of implementation and enforcement of this Ordinance and any resolution(s) adopted by the Authority pursuant to the authority granted in Section 201 hereof, against users located in the Township and connected to any portion of the Sewage System of the Authority which is or may in the future be connected and discharge to the Sewage System of the Greater Pottsville Area Sewer Authority.

SECTION 3. DESIGNATION OF SCHUYLKILL HAVEN AS AGENT.

The Township designates the Schuylkill Haven as the agent of the Township and the Authority for the purposes of implementation and enforcement of this Ordinance and any resolution(s) adopted by the Authority pursuant to the authority granted in Section 201 hereof, against users located in the Township and connected to any portion of the Sewage System of the Authority which is or may in the future be connected and discharge to the Sewage System of Schuylkill Haven.

PART 4
ENFORCEMENT

SECTION 1. ENFORCEMENT.

To the extent no inconsistent herewith, the enforcement of any violation of this Ordinance shall be governed by Township Ordinance No. 72, entitled "Township Enforcement Ordinance", as may be amended or supplemented from time to time.

DULY ENACTED AND ORDAINED this 28th day of October, 1997, by the Board of Supervisors of North Manheim Township, Schuylkill County, Pennsylvania, in lawful session duly assembled.

CHAPTER 12
SEWERS & SEWAGE DISPOSAL
PART B
Requiring and Regulating Sewer Connections

AN ORDINANCE OF THE TOWNSHIP OF NORTH MANHEIM REGULATING CONNECTIONS TO THE PUBLIC SEWAGE SYSTEMS; REQUIRING A PERMIT TO CONNECT TO THE PUBLIC SEWAGE SYSTEM; PROVIDING FOR SEWER RENTAL CHARGES; AND PRESCRIBING PENALTIES FOR VIOLATIONS. **[Adopted 7/20/93 by Ord. #60; Amended 1/12/10 by Ord. #117; Amended 10/13/11 by Ord. # 122]**

BE IT ENACTED AND ORDAINED by the Board of Supervisors of the Township of North Manheim Schuylkill County, Pennsylvania, and it is hereby enacted and ordained by authority of the same as follows:

PART I
DEFINITIONS AND MISCELLANEOUS PROVISIONS

SECTION 1. DEFINITIONS.

As used in this ordinance, the following terms shall have the meanings indicated, unless a different meaning clearly appears from the context:

Authorities Act – the Municipality Authorities Act of 1945, Act No. 164, May 2, 1945, P.L. 382, 53 P.S. § 301 et seq., as presently and hereafter amended, supplemented, modified or reenacted by the General Assembly of Pennsylvania.

Authority – the North Manheim Township Authority, acting through the Board of the North Manheim Township Authority.

Building Drain – part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet outside the inner face of the building wall.

Building Sewer – the extension from the Lateral of a Sewer to the Building Drain of any structure, ending five (5) feet outside the inner face of the building wall.

Combined Sewer – a sewer receiving both surface runoff and sewage.

Community Sewage System – any system, whether publicly or privately owned, for the collection and disposal of sewage or industrial wastes of a liquid nature, or both, including various devices for the treatment of such sewage or industrial wastes serving two or more lots.

Department – Department of Environmental Protection of the Commonwealth of Pennsylvania.

Holding Tank – watertight receptacle which receives and retains sewage and is designed and constructed to facilitate ultimate disposal of the sewage at another site. Holding tanks include, but are not limited to, the following:

- Chemical Toilet – toilet using chemicals that discharge into a holding tank.
- Retention Tank – holding tank to which sewage where water under pressure is not available.
- Privy – holding tank designed to receive sewage where water under pressure is not available.

Holding Tank Cleaner – municipal authority or person, including a holding tank owner, who removes the contents of a holding tank for purposes of disposing of the sewage at another site.

Improved Property – any property within the Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sanitary Sewage and/or Industrial Wastes shall be or may be discharged;

Industrial Establishment – any Improved Property located within this Township and used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property located within this Township, from which wastes, in addition to or other than Sanitary Sewage, shall be discharged;

Industrial Wastes – any and all wastes discharged from any Industrial Establishment, other than Sanitary Sewage;

Land Development – any of the following activities: 1) The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving: a)
A group of two (2) or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or, b) The division or allocation of land or space, whether initially or cumulatively, between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features; 2) A subdivision of land.

The term "Land development" does not include development which involves: 1) The conversion of an existing single family detached dwelling or single family semi-detached dwelling into not more than three (3) residential units, unless such units are intended to be a condominium; 2) The addition of an accessory building, including farm building, on a lot or lots subordinate to an existing principal building; or 3) The addition or conversion of buildings or rides within the confines of an enterprise which would be considered an amusement park. For the purposes of this subsection, an amusement park is defined as a tract or area used principally as a location for permanent amusement structures or rides. This exclusion shall not apply to newly acquired acreage by an amusement park until initial plans for the expanded area have been approved by the proper authorities.

Lateral – that part of the Sewer System extending from a Sewer to the curb line or, if there shall be no curb line, to the property line, or if no such Lateral shall be provided, then "Lateral" shall mean that portion of, or place in, a Sewer which is provided for connection of any Building Sewer;

Lot – any of the following; 1) A designated parcel, tract or area of land established by a plot or otherwise as permitted by law and to be used, developed or built upon as a unit; or 2) A part of a subdivision or a parcel of land used as a building site or intended to be used for building purposes, whether immediate or future, which would not be further subdivided. Whenever a lot is used for a multiple family dwelling or for commercial or industrial purposes, the lot shall be deemed to have been subdivided into an equivalent number of single-family residential lots as determined by estimated sewage flows.

Owner – any Person vested with ownership, legal or equitable, sole or partial, of any Improved Property;

Person – any natural person, partnership, association or corporation. Whenever used in any clause prescribing and imposing a penalty, or imposing a fine or imprisonment, or both, the term "person" shall include the members of an association and the officers of a corporation.

Sanitary Sewage – normal water-carried household and toilet wastes from any Improved Property;

Sewage – any substance that contains any of the waste products or excrements or other discharge from the bodies of human beings or animals, and any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life, or to the use of water for domestic water supply or for recreation.

Sewage Treatment Plant – any arrangement of devices and structures used for treating sewage.

Sewer – any pipe or conduit constituting a part of Sewer System used or usable for sewage collection purposes;

Sewer System – all facilities, as of any particular time, for collecting, pumping, transmitting, treating and disposing of Sanitary Sewage and/or Industrial Wastes, situate in or adjacent to this Township and owned or to be owned by the Authority for maintenance, operation and use;

Township – the Township of North Manheim, Schuylkill County, Pennsylvania, acting through the Board of Supervisors of North Manheim Township.

In this Ordinance, the singular shall include the plural; the plural shall include the singular; and the masculine shall include the feminine and neuter.

SECTION 2. PENALTIES.

Any person, firm, corporation or other entity who shall violate any provisions of this ordinance, shall be subject to the penalties set forth in Chapter 1, Part 10 Penalties of this Code.

SECTION 3. REPEALER.

All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed.

SECTION 4. SEVERABILITY.

If any sentence, clause, section, or part of this ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this ordinance. It is hereby declared as the intent of the Township that this ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

SECTION 5. EFFECTIVE DATE.

This ordinance shall become effective on enactment.

PART 2
REQUIRED CONNECTIONS TO PUBLIC SEWAGE SYSTEM

SECTION 1. USE OF PUBLIC SEWER REQUIRED.

The Owner of any Improved Property accessible to and whose principal building is within 150 feet from the Sewer System shall connect such Improved Property with and shall use such Sewer System, in such manner as this Township may require, within 60 days after notice to such Owner from this Township to make such connection, for the purpose of discharge of all Sanitary Sewage and Industrial Wastes from such Improved Property; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township, from time to time.

a. All Sanitary Sewage and Industrial Wastes from any Improved Property, after connection of such Improved Property with Sewer shall be required under this Section 2.1, to be conducted into a Sewer; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township or Authority, from time to time.

b. No Person shall place, shall deposit or shall permit to be placed or to be deposited upon public or private property within this Township any Sanitary Sewage or Industrial Wastes in violation of this Section 2.1.

c. No Person shall discharge or shall permit to be discharged to any natural outlet within this Township any Sanitary Sewage or Industrial Wastes in violation of this Section 2.1, except where suitable treatment has been provided which is satisfactory to the Authority.

SECTION 2. AUTHORITY MAY MAKE CONNECTIONS AND COLLECT COSTS.

If the owner of any property, after sixty (60) days' notice from the Authority to make connection of such property with the public sewage system shall fail to make such connection, the Authority may make the connection and collect the costs thereof in the manner provided by law.

SECTION 3. OWNERS REQUIRED TO CONNECT UPON EXPANSION OF SYSTEM.

From time to time in the future, as public sewage services become available to additional properties within the Township by reason of additions to the public sewage system or improvements on abutting properties, each and every owner of such property shall be required to make the necessary connection to the abutting or adjoining sewer lines, and any septic tanks, cesspools, holding tanks and similar devices connected to an individual sewage system shall be abandoned as outlined herein.

SECTION 4. PRIVY VAULTS, CESSPOOLS, SINKHOLES, SEPTIC TANKS, ETC.

No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used or shall be maintained at any time upon any Improved Property which has been connected to a Sewer or which shall be required under Section 102 to be connected to a Sewer.

a. Every privy vault, cesspool, sinkhole, septic tank or similar receptacle in existence shall be abandoned and, at the discretion of the Authority, shall be cleansed and shall be filled, at the expense of the Owner of such Improved Property, under the direction and supervision of the Authority; and any such privy vault, cesspool, sinkhole, septic tank or similar receptacle not so abandoned and, if required by the Authority, not cleansed and filled, shall constitute a nuisance, and such nuisance may be abated, as provided by law, at the expense of the Owner of such Improved Property.

b. No privy vault, cesspool, sinkhole, septic tank or similar receptacle at any time shall be connected with a Sewer.

SECTION 5. ACCESS TO PREMISES BY AGENTS.

The Authority and agents of the Authority shall have access at all reasonable hours of the day to all parts of the premises to which sewage service is supplied to make necessary inspections.

SECTION 6. NOTICE TO OWNER.

The notice by this Township to make a connection to a Sewer, referred to in Section 201, shall consist of a copy of this Ordinance, including any amendments and/or supplements at the time in effect, or a summary of each Section

hereof, and a written or printed document requiring the connection in accordance with the provisions of this Ordinance and specifying that such connection shall be made within 60 days after the date such notice is given or served. Such notice may be given or served at any time after a Sewer is in place which can received and can convey Sanitary Sewage and Industrial Wastes for treatment and disposal from the particular Improved Property. Such Notice shall be given or served upon the Owner in accordance with law.

PART 3
CONNECTION PERMITS AND SPECIFICATIONS

SECTION 1. PERMIT REQUIRED TO OPEN OR DISTURB SEWER.

No unauthorized person shall uncover, make any connection with or opening into, use, alter or disturb any part of the public sewage system or appurtenance thereto without first obtaining a permit from the Authority. Application for said permit shall be made by the Owner of the Improved Property served or to be served or by the duly authorized agent of such Owner.

SECTION 2. SEWER PERMIT FEES.

Before making a connection with the sewer system, each property owner shall make a written application therefore in the manner prescribed by the Authority and pay the permit, connection, customer facilities and tapping fees established pursuant to Resolution of the Authority in accordance with Authorities Act.

SECTION 3. OWNER RESPONSIBLE FOR CONNECTION COSTS.

All costs and expenses incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the Township and the Authority from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

SECTION 4. SEPARATE CONNECTION REQUIRED; EXCEPTIONS.

A separate and independent building sewer shall be provided for every building. Exceptions to this provision shall be made where one building stands to the rear of another on an interior lot and no sewer line is available, or can be constructed to the rear building through an adjoining alley, court, yard or driveway, in which case the building sewer from the front building may be extended to the rear building only on approval by the Authority. Such connection of the two buildings to the sewer lines shall be considered as two building sewers.

SECTION 5. STATUS OF OLD BUILDING SEWERS.

Old building sewers may be used in connection with a building only when such connection is approved by the Authority, and they meet the requirements of this ordinance or rules and regulations adopted pursuant hereto.

SECTION 6. SIZE AND SLOPE OF BUILDING SEWER.

The size and slope of the building sewer shall be subject to the approval of the Authority, but in no event shall the diameter be less than four (4) inches. The slope of such four (4) inch pipe shall be not less than one-fourth (1/4) inch per foot.

SECTION 7. ELEVATION, GRADE AND DEPTH OF BUILDING SEWER.

Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. No building sewer shall be laid parallel to or within three (3) feet of any bearing wall, which might thereby be weakened. The depth shall be sufficient to afford protection from frost. The building sewer shall be laid at uniform

grade and in straight alignment insofar as possible. Changes in direction shall be made only with properly curved pipe and fittings.

SECTION 7. DISCHARGE BY ARTIFICIAL MEANS WHEN GRAVITY FLOW INSUFFICIENT.

In a building in which the building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such drain shall be lifted by approved artificial means and discharged to the building sewer.

SECTION 8. EXCAVATIONS FOR BUILDING SEWER.

All excavations required for the installation of a building sewer shall be open trench work unless otherwise approved by the Authority. Pipe laying and backfill shall be performed in accordance with the Authority specifications, except that no backfill shall be placed until the work has been inspected and approved. If any part of a Building Sewer is covered before so being inspected and approved, it shall be uncovered for inspection, at the cost and expense of the Owner of the Improved Property to be connected to a sewer.

SECTION 10. JOINTS AND CONNECTIONS.

All joints and connections shall be made gastight and watertight. Every Building Sewer of any Improved Property shall be maintained in a sanitary and safe operating condition by the Owner of such Improved Property.

SECTION 11. CONNECTION OF BUILDING SEWER TO PUBLIC SEWAGE SYSTEM.

The connection of the Building Sewer to the Public Sewer System shall be made at the Lateral if such is available. If the public sewer line is twelve (12) inches in diameter or less, and no properly located Lateral is available, the Authority shall at the Property Owner's expense install a Lateral in the Public Sewer at the location specified by the Authority. Where the Public sewer is greater than twelve (12) inches in diameter, a manhole shall be first installed over the Public Sewer, then a Lateral to connect the Building Sewer, all at the Property Owner's expense.

SECTION 12. NOTIFICATION PRIOR TO CONNECTION.

The permit holder shall notify the Authority when the building sewer is ready for inspection and connection with the public sewer, and the connection shall be made under his supervision.

SECTION 13. SAFETY AND WARNING FACILITIES.

All excavations for building sewer installation and connection shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored, at the cost and expense of the Owner of the Improved Property being connected, in a manner satisfactory to the Township and the Authority.

SECTION 14. REMEDY OF UNSATISFACTORY CONDITION.

If any Person shall fail or shall refuse, upon receipt of a notice of this Township or the Authority in writing, to remedy any unsatisfactory condition with respect to a Building Sewer within 60 days of receipt of such notice, this Authority may refuse to permit such Person to discharge Sanitary Sewage and Industrial Wastes into the Sewer System until such unsatisfactory condition shall have been remedied to the satisfaction of this Township and the Authority.

SECTION 15. ADDITIONAL RULES AND REGULATIONS.

The Authority reserves the right to adopt, from time to time, additional rules and regulations as it shall deem necessary and proper relating to connections with a Sewer and with the Sewer Systems, which additional rules and regulations, to the extent appropriate, shall be and shall be construed as part of this Ordinance.

PART 4
SEWER RENTAL CHARGES

SECTION 1. IMPOSITION OF SEWER RENTAL CHARGES.

All owners of property connected or connecting with the sewer lines and the public sewage system, and all of the owners of property who may hereafter connect with and use the same shall pay annual sewer rentals or charges in quarterly installments as hereinafter provided, for the use of such sewage facilities based upon a schedule of rates to be determined by resolution of the Authority.

SECTION 2. PAYMENT OF CHARGES; PENALTY FOR LATE PAYMENT.

Sewer rentals or charges shall be paid quarterly in accordance with billings for sewage services, except that during the first quarter that a residential, commercial or industrial user begins to discharge sewage into the public sewage system, said charge shall be based on a per diem amount prorated from the time such sewer connection is made until the following quarterly billing period. All charges for sewage service shall be subject to a ten percent (10%) penalty if not paid within thirty (30) days after they are due. If not paid within sixty (60) days after due, the net bill plus penalty shall bear interest at the rate of one-half percent (½%) of one percent per month or fraction thereof until paid.

SECTION 4. UNPAID CHARGES CONSTITUTE LIEN.

Annual sewer rental charges shall be a lien on the properties charged with payment thereof, from the effective date of this ordinance, and if not paid after thirty (30) days' notice, may be collected in any manner provided by law, including without limitation the entry of the municipal lien of record in the Office of the Prothonotary of Schuylkill County, Pennsylvania. In the case where the Authority has agreed to provide sewer service to a residential dwelling unit in which the owner does not reside, the Authority shall notify the owner and the tenant within thirty (30) days after the tenant's bill for that service first becomes overdue. Such notifications shall be provided by first class mail to the address of the owner provided to the Authority by the owner and to the billing address of the tenant, respectively.

SECTION 5. AUTHORITY MAY MAKE SPECIAL AGREEMENT OR ARRANGEMENTS WITH INDUSTRIAL CONCERNS.

No statement contained in this part shall be construed as to prevent any special agreement or arrangement between the Authority and any industrial concern whereby an industrial waste of any strength or character may be accepted by the Authority for treatment, subject to payment therefore by the industrial concern.

DULY ENACTED AND ORDAINED this 20th day of July, 1993, by the Board of Supervisors of North Manheim Township, Schuylkill County, Pennsylvania, in lawful session duly assembled.

CHAPTER 12
SEWERS AND SEWAGE DISPOSAL
PART C
Holding Tanks

AN ORDINANCE REGULATING THE USE, OPERATION AND MAINTENANCE OF HOLDING TANKS WITHIN NORTH MANHEIM TOWNSHIP; REQUIRING PERMITS FOR SAID HOLDING TANKS, AND SETTING FEES THEREFORE; AND FIXING PENALTIES FOR VIOLATION THEROF. **[Adopted 1/12/10 by Ord. #117]**

SECTION 1. PURPOSE

The purpose of this article is to establish procedures for the use and maintenance of existing and new holding tanks designed to receive and retain sewage, whether from residential or commercial uses, and it is hereby declared that the enactment of this article is necessary for the protection, benefit and preservation of the health, safety and welfare of the inhabitants of North Manheim Township.

SECTION 2. DEFINITIONS

Unless the context specifically and clearly indicates otherwise, the meanings of terms used in this article shall be as follows:

GOVERNING BODY: The Board of Supervisors of North Manheim Township, Schuylkill County, Pennsylvania.

HOLDING TANK: A watertight receptacle, whether permanent or temporary, which receives and retains sewage conveyed by a water-carrying system and is designed and constructed to facilitate the ultimate disposal of the sewage at another site.

IMPROVED PROPERTY: Any property within North Manheim Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings and from which structure sewage shall or may be discharged.

MUNICIPALITY or TOWNSHIP: North Manheim Township, Schuylkill County, Pennsylvania.

OWNER: Any person vested with ownership, legal or equitable, sole or partial, of any property located in the Township.

PERSON: Any individual, partnership, company, association, corporation or other group or entity.

SEWAGE: Any substance that contains any of the waste products or excrement or other discharge from the bodies of human beings or animals and any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life or to the use of water for domestic water supply or for recreation, or any substance which constitutes pollution under the Clean Stream Law (35 P.S. §§691.1-191.1001).

SECTION 3. AUTHORIZATION TO CONTROL

The Board of Supervisors is hereby authorized and empowered to undertake within the Township the control and methods of holding tank use, sewage disposal and sewage collection and transportation thereof.

SECTION 4. RULES AND REGULATIONS

The North Manheim Township Board of Supervisors is hereby authorized and empowered to adopt such rules and regulations concerning sewage which it may deem necessary from time to time to effect the purpose of this chapter.

SECTION 5. RULES AND REGULATIONS TO BE IN CONFORMITY WITH APPLICABLE LAW

All rules and regulations adopted by the Board of Supervisors pursuant to this article shall be in conformity with the provisions hereof, all other ordinances of the Township, all applicable laws and all applicable rules and regulations of the Commonwealth of Pennsylvania and its departments and agencies.

SECTION 6. APPLICATION FORMS, RATES AND CHARGES

Application forms to be used shall be those established by the Pennsylvania Department of Environmental Protection for use with an on-lot sewage disposal system permit. The Board of Supervisors shall have the right and power to fix, alter, charge and collect rates, assessments, and other charges in the area served by its facilities for services performed under this Ordinance at reasonable and uniform rates as authorized by applicable laws and regulations. Rates for permits and inspections shall be established by Resolution of the Board of Supervisors.

SECTION 7. HOLDING TANK INSTALLATION, COLLECTION AND TRANSPORTATION OF SEWAGE AND INSPECTION OF TANKS.

A. The holding tank installation shall meet the design standards set forth in applicable regulations of the Pennsylvania Department of Environmental Protection (See 25 Pa. Code Chapter 71.51(3)).

B. The collection and transportation of all sewage from any improved property utilizing a holding tank shall be done solely by or under the direction and control of the Board of Supervisors in compliance with the regulations of the Pennsylvania Department of Environmental Protection (DEP) set forth in 25 Pa. C.S.A. § 71.63, a copy of which is attached hereto as Appendix A. (Note: Appendix A is on file in the Township offices and may be examined there)

C. The disposal of sewage from holding tanks shall be made only at sites which have been approved by the Department of Environmental Protection for that purpose.

D. All permits for the utilization of holding tanks within the Township for the collection of sewage issued after the effective date hereof shall have a requirement for an annual inspection by the Township Sewage Enforcement Officer and the Owner shall be required to remit to the SEO the fee currently approved by the Township for said inspection. If the inspection reveals a concern or that the holding tank is being improperly used, the permit can then be revoked and the owner must cease use of the holding tank. Once the problems which caused the revocation have been resolved the owner may re-apply for a new holding tank permit.

E. The Sewage Enforcement Officer of North Manheim Township will receive, review and retain pumping receipts for each permitted holding tank.

F. The Board of Supervisors, directly and through its Sewage Enforcement Officer, will complete and retain annual inspection reports for each permitted tank.

SECTION 8. DUTIES OF PROPERTY OWNER

The owner of an improved property that utilizes a holding tank shall:

A. Maintain the holding tank in conformance with this article and all other applicable ordinances of the Township, the provisions of any applicable law, and the rules and regulations of the Township, of DEP and of any other administrative agency of the Commonwealth of Pennsylvania.

B. Permit only the Board of Supervisors or its agent to inspect the holding tank on an annual basis.

C. Permit only a licensed hauler to collect, transport, and dispose of the contents of the holding tank at a licensed permanent dumping site.

D. Provide proof to the Board of Supervisors that the hauler and dumping site are both licensed by DEP or other appropriate governmental agency.

E. Provide the Board of Supervisors, through its Sewage Enforcement Officer, with receipts indicating that the holding tank has been pumped on a regular basis.

F. Fill any holding tank which has remained unused for a period of two consecutive years with dirt or similar material.

G. Deposit an escrow of cash or a bank letter of credit with a self-renewing provision commonly referred to as an "evergreen clause" in a form acceptable to the Township Solicitor, in the sum of One Thousand ($1,000.00) Dollars as security for proper maintenance of the holding tank and collection and disposal of its contents. The Township shall have the right, without prior notice to Owner, to draw upon said escrow to maintain the tank or empty its contents any time in its sole opinion such action is necessary. The Township shall have the right, upon thirty (30) days written notice, to demand the escrow be increased to such additional amount as it deems necessary to provide sufficient security for the proper maintenance of the holding tank. In the event that the Township shall ever draw upon the escrow, the Owner shall, upon ten (10) days written notice, provide the Township with funds as are necessary to restore the escrow to such amount as shall then be in effect.

SECTION 9. TRANSFER OF PROPERTY

Any person who sells, transfers or conveys an improved property in North Manheim Township which utilizes a permitted holding tank for collection and disposal of sewage shall give written notice to the purchaser or transferee thereof that a permit for the holding tank is in effect and shall furnish a true and accurate copy of the holding tank permit to the new owner. Additionally, any funds held by the Township in escrow for the holding tank shall not be refunded to the Owner but shall be held for the future owner of the property / holding tank.

SECTION 10. OTHER METHODS OF DISPOSAL TO BE CONSIDERED

No permit for the use of a holding tank in North Manheim Township shall be issued, whether pursuant to this article, any rules and regulations adopted hereunder, or otherwise, unless all other possible means of collecting and disposing of sewage at the property in question have been considered and found to be unusable. Should a permit for a holding tank be issued and in the future public sewers become available to serve the property, the owner shall connect to said public system and properly abandon the holding tank at that time in accordance with DEP regulations.

SECTION 11. VIOLATIONS AND PENALTIES

Any person, firm or corporation or other entity who shall violate any provisions of this ordinance, shall be subject to the penalties set forth in Chapter 1, Part 10 Penalties of this Code.

SECTION 12. ABATEMENT OF NUISANCES

In addition to any other remedies provided in this article, any violation of Section 8 above shall constitute a nuisance and shall be abated by the municipality by either seeking mitigation of the nuisance or appropriate equitable or legal relief from a court of competent jurisdiction.

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix E ■ DEP Sewage Disposal Needs Identification Guidance

ACT 537
SEWAGE DISPOSAL NEEDS IDENTIFICATION

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
For more information, visit DEP's website at
www.dep.state.pa.us, keyword: Sewage.

TABLE OF CONTENTS

		Page
Preface		ii
Introduction		1
I.	Identification of Sewage Associated Malfunctions and Environmental Contamination	2
	A. Public Health Needs	2
	B. Water Pollution Needs	6
II.	Summary of Identified Needs Documentation	8
	A. The Narrative Summary	8
	B. The Map Summary	9
Appendix A		10
Appendix B		15
Appendix C		19

PREFACE

Act 537, the Pennsylvania Sewage Facilities Act, requires that all municipalities develop, revise and implement Official Sewage Facility Plans ("Act 537 Plan" or simply "Official Plan"). A fundamental part of this Act 537 Plan is the identification and documentation of the sewage disposal needs in a municipality. The purpose of this document is twofold: first, to provide methods that clearly identify and document existing wastewater disposal needs and second, to provide general guidance for summarizing and presenting the identified needs.

INTRODUCTION

When preparing an Act 537 Plan, a community's wastewater disposal "needs" must be documented. Adequate documentation of these sewage disposal needs is considered fundamental for all following work involving sewage disposal alternatives and solutions. The cost of identifying and documenting sewage disposal needs is normally an expense that is eligible for the planning grant under 25 Pa. Code §71.41 (Grants for the preparation of official plans). Please note that funding for the preparation of update revisions and special studies is available to the extent of the appropriations made by the General Assembly for that purpose. In recent years funding for planning grants has been limited. Ensure that adequate cost estimates for eligiable planning is included in the *Task/Activity Report* form (3800-FM-BPNPSM0005) available on DEP's website at www.dep.state.pa.us that is submitted to DEP for approval. These activities are presently included in the *Act 537 Plan Content and Environmental Assessment Checklist* form (3800-FM-BPNPSM0003) also available on DEP's website under Section III B. Additionally, adequate needs documentation is required when competing for "needs" prioritized funding, such as PENNVEST.

Generally, documentation of needs will involve both data collection and an assessment of various factors relating to soils, sewage malfunctions, polluted wells, zoning, etc. This guideline is organized into two general sections:

I. Identification of sewage associated malfunctions and environmental contamination; and

II. Summary of identified "needs" documentation.

I. IDENTIFICATION OF SEWAGE ASSOCIATED MALFUNCTIONS AND ENVIRONMENTAL CONTAMINATION

The identification and documentation of sewage associated problems involves the collection and tabulation of information, much of which currently exists in the form of reports, surveys and administrative actions, and then verifying the data with actual field work.

There are two general needs categories relating to sewage disposal that must be considered:

- Public Health Needs
- Water Pollution Needs

Information obtained in these categories must be subjected to field surveys in order to verify specific needs. Field surveys are instrumental to obtain documentation for inclusion in the Act 537 Plan.

A. Public Health Needs

1. Public health needs are considered to be those health hazards and water pollution problems that involve discharging untreated or inadequately treated sewage to the surface of the ground or to the waters of the commonwealth (including groundwater). Most commonly, these needs are found to be malfunctioning onlot disposal systems (OLDS) and malfunctioning community onlot disposal systems (COLDS). OLDS malfunctions are classified into three categories: confirmed, suspected and potential. Properly functioning OLDS are added to these groups forming a fourth category. When determining the public health needs of an area using OLDS/COLDS, all systems inventoried, mapped and analyzed must be placed into one of these four categories:

    a. **Confirmed Malfunctions**: Those malfunctions documented by dye testing, laboratory test results, observation by a certified Sewage Enforcement Officer or a professional with experience in OLDS, "Best Technical Guidance" repair permits, and seasonally wet absorption areas. Also included are piped discharges from a single structure with direct evidence of sewage (i.e., direct observation of soap suds, food residue, solids, odors, etc.), reported system backups, malfunctions with photographic documentation or other similar evidence.

    b. **Suspected Malfunctions**: Those systems exhibiting some malfunction characteristics such as abnormally green grass in the vicinity of an absorption area, piped discharges from one (or more than one) dwelling without direct evidence of sewage (i.e., no observation of soap suds, food residue, solids, odors, etc.), absorption areas located in known unsuitable soils (observed wetlands, rock outcropping, etc.), cesspools (in high density development) and pit (not vault) privies.

c. **Potential Malfunctions**: Those systems that appear to be operating satisfactorily but were constructed prior to system permitting requirements (i.e., preregulatory systems), systems located in areas extremely unlikely to receive permitting by current standards, systems constructed in areas having soils mapped as unsuitable or with severe limitations for OLDS and systems located on exceptionally steep slopes greater than 25 percent. For the purpose of needs identification, OLDS permitting under Act 537 became effective on May 15, 1972. Included as potential malfunctions are permits issued for OLDS repairs that meet Chapter 73 standards. While this needs category does not represent "stand alone" existing needs, the information may be utilized in a needs analysis to locate areas affected by poorly defined adverse circumstances. For example, clusters of legitimate repairs will often indicate areas requiring closer scrutiny.

d. **No Malfunction**: Those systems that appear to be operating satisfactorily, were constructed since the implementation of system permitting requirements, and appear to have been constructed in accordance with the permitting requirements in effect at the time of construction. For the purpose of needs identification, OLDS permitting under Act 537 became effective on May 15, 1972.

2. Several other situations exist that must also be inventoried, mapped and analyzed when identifying public health needs for an Act 537 Official Plan or Plan Update Revision. These include: wildcat sewers, borehole disposal, holding tanks, public complaints and sanitation related illnesses.

a. **Wildcat Sewer**: Collection systems (community sewers) serving more than one equivalent dwelling unit (EDU) and discharging untreated or partially treated sewage to the surface of the ground, storm sewers or other waters of the commonwealth. An EDU is equal to a sewage flow of 400 gallons per day. The number of EDUs connected to a wildcat sewer is used to "convert" the wildcat sewer into an equivalent number of confirmed malfunctions. (For example, four residential dwellings, each with sewage flows of 400 gallons per day (GPD) will equal four EDUs. One restaurant with a sewage flow of 1,200 GPD will equal three EDUs. If all were connected to a wildcat sewer, they would be the equivalent of and reported as seven EDUs, or seven malfunctioning OLDS.)

b. **Borehole Disposal**: Individual or community systems discharging to a borehole, abandoned water well, drywell, ventilation shaft or other subterranean structure. As in the previous example, the number of EDUs connected to a borehole is used to "convert" borehole disposal into an equivalent number of confirmed malfunctions.

c. **Holding Tanks**: A watertight receptacle designed to retain sewage for disposal at another location. All holding tanks installed as repairs should be counted as "needs." Specifically excluded are holding tanks installed to serve new land development or low flow commercial facilities. While not actually spewing sewage into the environment, properly maintained holding tanks, when used in OLDS repair situations, are included in the confirmed malfunction category.

d. **Public Complaints**: Any legitimate complaint received by DEP or the municipality concerning improper sewage disposal. The number, nature and location of public complaints concerning improper sewage disposal are important, yet often overlooked indicators of sewage disposal problem areas.

e. **Sanitation Related Illness**: Any reported illness, either resulting from or suspected to be resulting from improper sewage disposal. Records and incidents in which polluted water supplies have been suspected or confirmed as the cause of disease is documentation establishing a community's wastewater treatment needs. Confirmed or suspected vectorborne disease that may be attributed to surface ponding of sewage also should be considered.

3. The following paragraphs represent methods that may be used to obtain public health needs information:

a. **Sewage Sanitary Survey**: These randomly verified field surveys may be conducted in two "tiers" (or steps), depending on the scope of the Act 537 Official Plan revision being prepared. For "municipality-wide" or large area plans, a general or "tier one" approach is appropriate, especially with a goal of identifying and prioritizing sub-areas for closer scrutiny or simply gathering generic information for a large area. The "tier two" survey provides a much closer scrutiny of a study area and is more appropriate for smaller scale (less than municipality-wide) plans, for accurately defining and documenting suspected problem areas, and for prioritizing the severity of problems found in several areas. The "tier two" survey might also be appropriate for municipal-wide planning where the municipality is uniformly developed throughout or where it is anticipated that the rate of sewage disposal problems will be similar in both densely and less densely developed portions of municipalities that have variable development patterns.

Most "tier one" surveys use a minimum sampling rate of 15 percent; while for the "tier two" survey, representative sampling rates vary with the size of the area. In both cases, obtaining this representative sampling is important, as well as random selection of sampling points and sampling in a pattern that provides accurate, complete coverage of the survey area. Please note that a generic "tier one" 15 percent sampling rate will NOT be sufficient to assign a PENNVEST project priority rating for any project smaller than 1,000 units.

A door-to-door survey conducted by consultant or municipal personnel is the preferred method of conducting a sewage sanitary survey. While a "mail-in" questionnaire survey, with provisions for specific confirmation of reported malfunctions or even a combination of methods that involve both detection and confirmation of sewage disposal problems, may provide helpful information to augment the data gathering process, they are generally considered less reliable and less accurate and may not be substituted for a "door-to door" survey when determining the sewage disposal "needs" of a study area. "Mail-in" survey results may not be used to prepare PENNVEST project priority ratings. When conducting sewage sanitary surveys, the percent of OLDS or EDUs inventoried in a door-to-door survey, the return rate of mail-in questionnaires and the percentage rate of the questionnaires subjected to field verification must all be reported. Specific examples of survey procedures and sample survey forms are included as Appendix A for "door-to-door" surveys, and Appendix B for "mail-in" surveys.

It is also highly recommended that the local DEP regional office be contacted to discuss appropriate survey methodology for specific situations.

b. **Existing Sanitary Surveys**: Sanitary surveys completed by DEP, a county health department or other professional organization are acceptable provided that both methodology and results are included in the survey by the latter organizations.

c. **Well Water Surveys**: Well water surveys may also be completed in similar fashion to Sewage Sanitary Surveys using two tiers (or steps). In "tier one," a minimum of 15 percent of the wells in the general study area must be sampled. In the second tier, potential sewer service areas are again subjected to closer scrutiny. A representative sampling of wells within these smaller, more defined areas must be completed. As a general rule, representative sampling will be required in subareas where total coliform contamination rates are ten percent or greater and fecal coliform contamination rates for those samples testing positive for total coliform are 20 percent or more. In both tier procedures, all wells sampled must be tested for total coliform, fecal coliform and nitrate-nitrogen contamination. (Testing for additional contaminants may be completed at the municipality's or DEP's discretion. Testing for fewer contaminants or lower sampling rates may be coordinated with DEP.)

A representative sample is defined as:

Wells in Service Area	Percent Sampling Required
Up to 50	50 percent
51 to 100	35 percent
101 to 500	25 percent
501 to 1,000	20 percent
Greater than 1,000	15 percent

These wells must be randomly selected and distributed throughout the study area for the results to be valid. Additional wells above these figures may be sampled to further define specific needs areas. In all cases, it is mandatory that comments concerning well construction (dug vs. drilled) be included for all wells sampled. Public water service areas also must be identified and delineated since well samples will not normally be taken from these areas. (If private wells are available for sampling in public water service areas, then they should be included in the survey.)

d. **Windshield Surveys**: Windshield surveys can be useful and productive, but have great limitations for "needs" documentation. This method is usually an inexpensive and efficient utilization of staff, however, such surveys are limited to what observations may be made from streets or roads. All observations made during such a survey must be meticulously recorded and normally will require a site visit to adequately document a need. It is recommended that the windshield survey be utilized only in conjunction with other surveys or data gathering efforts. Under no circumstances may a windshield survey be considered as the sole source of documented information.

B. Water Pollution Needs

Water pollution needs are violations of either the National Pollutant Discharge Elimination System (NPDES) discharge criteria or the Clean Streams Law. In sewage facilities planning, any suspected water pollution, whether originating from existing sewage treatment facilities or malfunctioning OLDS, migrating into surface waters must be confirmed by appropriate sampling of the discharges or the receiving waters. Facts to consider when reporting such sample results are: (1) frequency and duration of discharge; (2) effect on receiving body of water; and (3) flow character of receiving body of water.

1. **NPDES Violations**: When dealing with NPDES issues, DEP regional field office water management programs may provide this data. Information of this type is often available as part of existing data management systems or through file review.

2. **Non-NPDES Contamination**: To establish water pollution needs for non-NPDES situations, stream water samples must be obtained from all suspect area waterways clearly above and clearly below the suspected contamination source area. The same bacterial and chemical testing regime utilized in the well testing program is appropriate for stream testing. Additional well known tests such as pH, MBAS, NH_3, etc., may be included at the municipality's discretion. Any stream analysis must evaluate the likelihood of other sources for the observed contamination (i.e., is there a livestock operation straddling the stream in the test area). Of particular interest is any adverse impact on downstream users. Analysis must also include any impact on downstream community water supply intakes; include any raw water sample test reports for community water systems. Livestock watering, fishing, scenic and recreational opportunities are examples of often overlooked downstream users. Do not concentrate ONLY on known downstream community water intakes.

II. SUMMARY OF IDENTIFIED NEEDS DOCUMENTATION

The data from the sewage disposal needs documentation must be incorporated into a form easily interpreted by others. Since this documentation is frequently utilized to justify construction of a public project or to determine a priority for funding a project, it is most often used by someone not involved in the data gathering. Proper summarizing of needs data is critical to this decision making process.

There are two parts of a data summary: the narrative and the maps.

A. The Narrative Summary

1. Provide a short narrative containing information on who conducted the survey, when it was conducted and under what environmental conditions (freezing, drought, raining, etc.) it was conducted. Include the methodology used to conduct the survey.

2. Organize the data into easily evaluated groupings. No one single formula or technique is considered the correct and only way to accomplish this function. The summary should clearly and concisely support the stages of the Act 537 planning process. In addition to a verbal picture of a study area's needs, data obtained from surveys should be reported in percentages for reviewing and evaluating authorities. Compiling the data into appropriate groupings is extremely important. Two general examples are provided below to illustrate some desired data groupings.

    a. When a study area contains needs that will be addressed by more than one method of sewage disposal (i.e., a municipal plan that proposes continued use of OLDS in some areas and a community sewer system in others), group the data to enable separate evaluations. In this example, data must be grouped for the entire municipality, the OLDS area only and the project area only.

    b. When a study area contains needs that will obviously be addressed by one method of sewage disposal (i.e., a study area originally defined as a potential sewer expansion area), the data may be compiled into one data group for the entire area.

    In general for all groupings, include the number of structures surveyed, the number of structures with known disposal problems (conversely the number without disposal problems), and what kind of problems the structures have. Present the data in descending order of severity from the most significant problems (wildcat sewers and direct discharges) to the least significant needs (no problems). The use of tables or charts for organizing survey results is highly encouraged and is beneficial to all agencies utilizing the plan. For example, a

table should include the house number, show the number of EDUs (for motels, apartments, commercial, industrial, etc.), indicate if it has a malfunctioning OLDS and include a brief description of the problem. Be sure to include any observations that may contribute to recognition of the types of problems located that cannot be expressed in hard numbers. For example, "virtually all the homes down by the stream have surface malfunctions" provides valuable insight to the situation, although it may contribute virtually no quantitative data upon which a comparative evaluation or rating might be based.

3. Retain in narrative form all observations that were not included with the previous groupings. This miscellaneous information will often contain valuable information.

B. The Map Summary

The summary should also be presented in map form. Maps help identify areas of greater concern and help to properly analyze the available alternatives for each identified area. Malfunction percentages may seemingly justify a large scale project, but adequate mapping may clearly show that all of the problems are located in one concentrated area. Data in the summary should be displayed and keyed or color coded to the map. The detail should be sufficient to support a general description of the needs in the study area. Maps should be of the same scale as those found in the rest of the Act 537 Official Plan. Refer to Appendix C for additional guidance concerning mapping requirements.

Appendix A

The Door-to-Door Survey

The most desirable method of assessing sewage disposal needs in an area is with a door-to-door survey. Specific surveying procedures may vary from one project location to another, but generally, surveys should proceed along the following guidelines. Surveys may be divided into three phases: (A) survey preparation; (B) survey execution; and (C) survey completion.

A. Survey Preparation

1. Identify the study area on a map of sufficient scale to show desired detail. The map should clearly depict each sewage generating structure. Topographical maps or tax maps are good starting points.

2. Contact the municipal solicitor to determine what local protocols exist pertaining to "right-of-entry" situations.

3. Check all available background records, such as municipal OLDS permit applications and complaint investigations, for a history of malfunctions, repairs and complaints in the study area. Interview the Sewage Enforcement Officer (SEO), municipal road crews and municipal secretary to help identify specific problem areas. Often the information obtained from such individuals will save valuable time by pinpointing problem areas upon which to concentrate during actual field work.

4. Develop a survey sheet questionnaire with a list of questions to be asked during the survey. The questions must be phrased to obtain the necessary information needed to complete the plan. Keep the questions brief and provide preformatted answers or "check the block" answers where possible. Fit it all on one side of a sheet of paper (sample is included on page 14) (this is Appendix A).

5. Copy an area map on the reverse side of the questionnaire developed in number 4 (the survey taker will use this map to mark the location that samples were taken).

6. Develop a plan to collect well water samples. Ensure that a representative sample is obtained. All samples must be collected from the raw water side of any water treatment or purification device serving the structure. See the “Well Water Surveys” portion of this publication for additional information.

7. Locate stream water sampling points. Obtain samples upstream and downstream of the study area. See the Water Pollution Needs, Non-NPDES Contamination section of this publication for additional information.

8. Dye testing is generally not used in a survey. However, dye test procedures are not specifically excluded from surveys, and their results may prove useful. Dye testing may confirm multiple discharges, hidden discharges or document a pathway between sewage disposal systems and contaminated wells or waterways. A negative dye test, however, does not preclude the existence of a malfunction.

9. A Representative Survey is defined as a survey of sample points that includes data confirmed by the minimum number of field-verified survey reports required to validate a Sewage Sanitary Survey. Sample points for field verification are randomly selected. The percentage of field verified survey reports required to validate a Sewage Sanitary Survey will vary with the total size of the survey in accordance with the following table:

OLDS in the Project Area	**Percent OLDS Sampling Required**
Up to 50	50 percent
51 to 100	35 percent
101 to 500	25 percent
501 to 1,000	20 percent
Greater than 1,000	15 percent

B. Survey Execution

1. Contact the local police department and inform them of the date, time and place the survey will be conducted. It is also desirable to make a public announcement of this same information. Placing notices on community bulletin boards in local markets is often helpful.

2. Choose a logical route, traveling door to door and complete a survey questionnaire data sheet for each structure. Locate the structure on the map and identify it with an identification system that coordinates the map location, the survey form and any samples taken.

3. Field personnel should clearly identify themselves and indicate that they are working for and represent the municipality. They should also carry identification and have a telephone number for the municipality available for confirmation of their identity. UNDER NO CIRCUMSTANCES should a survey-taker give the impression they represent DEP. DEP cannot address issues that may arise during a sanitary survey conducted by non-state employees.

4. Using the questionnaire to guide the information gathering, inquire about both the structure and the neighborhood. Clarify any answers that are not understood, unusual, unexpected or easily misunderstood.

5. Ask permission to look around the property:

   A. If permission is refused, proceed to the next property. Make notes on any apparent needs visible from off the property. In a survey, never attempt to force, bluff or deceive to gain permission to enter property.

   B. If permission is granted, proceed to step 6.

   C. If no one is home or data collection is denied because the owner is not present on the property, leave a note, like the one immediately below, on the door that seems to be the usual entry to the house. DO NOT PLACE THIS NOTE IN OR ON ANY MAILBOX -- placing anything other than mail in or on a house mailbox is a violation of federal law.

      To: The owner of [property address] Date: / /

      Sorry we missed you. Could we get together soon so that data on your property can be included in our township's survey of sewage disposal needs and methods? This survey is conducted to assist your supervisors as they carry out their legal duties required by Act 537. The survey obtains information needed for considering future decisions on this subject when it may affect our township.

      We'll try to stop back today. If we do not see you, would you call [surveyor's name] at [survey office phone number] between [hours], so that we can make an appointment with you?

      Signature

6. When walking around the property, watch for dogs, geese, bison and any other dangerous livestock; record all observations relating to sewage disposal on the survey form, and; make note of any evidence of an apparent malfunction, such as the type and location of the apparent malfunction. If no evidence of a malfunction is observed, make note of that information. Since the purpose of the walk around is not only to confirm what has been reported, but also to identify problems of which people may be unaware, the walk around should be conducted by individuals with knowledge of proper onlot system operation.

C. Survey Completion

When data gathering is complete:

1. Conduct a thorough debriefing of all survey takers. Have them summarize their experiences, observations and impressions. (This information is quickly lost with the passage of time.)

2. Mark the project map with the location of identified malfunctions or any other "public health needs" found in Section A of this publication.

3. Record and assess both the frequency and severity of malfunctions, identify localized areas of clustered problems and list the probable causes of the malfunctions (soils, slopes, etc.).

DOOR-TO-DOOR
NEEDS SURVEY

Munic.: _____ Co.: _____ Study Area: _____ Date: _____
General weather conditions: _____

A survey is being conducted to determine if there are any sewage problems in this area. This is a general survey and the results are intended to be used in evaluating the need for community wide solutions.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: _____ STREET: _____ CITY: _____
ZIP: _____ PHONE #: _____ OWNER OR RENTER? NUMBER OF RESIDENTS: ____
What kind of water system do you have? WELL? SPRING? CISTERN? PUBLIC? OTHER?
If you have a well: Is it DUG or DRILLED? HOW DEEP? _____ ft. Cased? Y / N
How far is the well or spring from the drain field? _____ ft. Is well UP/DOWNHILL? _____
Do you treat your water? Y / N How? CL/UV DISINFECTION, SOFTENER, ION, OTHER _____
Was the water ever tested? Y / N When? _____
Any contamination? Y / N What? (TC, FC, N, etc.) _____

How large is your lot? _____ No. of dwelling units? _____
One or more sewage systems? _____ COMMERCIAL/RESIDENTIAL?

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	INGROUND BED	COMMUNITY SEWER
CESSPOOL	INGROUND TRENCH	STORM SEWER
OLD WELL	ELEVATED SAND MOUND	PIPE TO DITCH
HOLDING TANK	SEEPAGE PIT	PIPE TO STEAM
PRIVY	BORE HOLE	PIPE TO SURFACE

OTHER _____

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	INGROUND BED	COMMUNITY SEWER
CESSPOOL	INGROUND TRENCH	STORM SEWER
OLD WELL	ELEVATED SAND MOUND	PIPE TO DITCH
HOLDING TANK	SEEPAGE PIT	PIPE TO STEAM
PRIVY	BORE HOLE	PIPE TO SURFACE

OTHER _____

How old is your system? _____ Was it permitted? Y / N When? _____
Have you every noticed any of the following near your septic system? _____

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS	ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	

OTHER _____

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____
If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system every been repaired? Y / N When? _____ By permit? Y / N What part? _____
TANK: REPAIRED/REPLACED LINE: REPAIRED/REPLACED DRAIN FIELD: REPAIRED/REPLACED
COMMENTS: _____

DO I/WE HAVE YOUR PERMISSION TO CONFIRM THIS INFORMATION BY LOOKING AROUND? Y / N

Sample

Appendix B

The Mail Survey

1. Identify the study area on a map of sufficient scale to show desired detail. The map should clearly depict each sewage generating structure. Topographical maps or tax maps are good starting points.

2. Coordinate with municipal officials to obtain the appropriate names and addresses to contact study area residents or landowners.

3. Draft a cover letter explaining the purpose of the survey and include the procedures to complete and return the survey form. Include all necessary addresses. A response time of 30 to 60 days is suggested.

4. Draft a mail-in questionnaire designed to obtain an accurate picture of the study area needs. If possible, include a map and have individuals mark their structure on the map for easy identification. Avoid use of the word "malfunction" where possible, in favor of concentrating on obtaining data about the type of OLDS, location of OLDS and any problems with the system. Ask about other systems in the neighborhood.

5. Mail questionnaires and receive the return documents. Including a self-addressed, stamped return envelope will enhance the chances of receiving an adequate survey response.

6. Compute the survey response rate as a percent to determine if the minimum response has been received. The minimum response rate necessary to effectively use the mail-in survey data is equal to the same minimum sampling required to obtain a representative survey in the door-to-door survey. For example, if a survey has 150 questionnaires sent and 80 are returned the return rate is 53 percent. This return rate meets the minimum criteria and the survey results may be used.

7. The results of mail-in surveys must be randomly validated in order to obtain the greatest benefit from the results. To validate mail-in survey results, a certain number of returned questionnaires selected at random must be field-verified. The percentage of field-verified questionnaires required to validate a survey will vary with the total size of the survey in accordance with the following table:

OLDS in the Project Area	**Percent OLDS Field Verifications Required**
Up to 50	50 percent
51 to 100	35 percent
101 to 500	25 percent
501 to 1,000	20 percent
Greater than 1,000	15 percent

As can be seen from this table, if a mail-in survey receives only the minimum response computed in step 6, then all returned questionnaires must be field verified. If a response is greater than the minimum, only the minimum must be verified. It is not necessary to verify all reported problems. Field verification should be completed for a random selection of the responses.

Example 1

SEWAGE NEEDS
MAIL SURVEY

_____/_____/_____

_____ (Boro./Twp.) is conducting a survey to determine what sewage problems may exist in this area. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting the problems. Please help us locate and circle your property on the accompanying map. Please complete the form to the best of your ability and return it by _____/_____/_____ to the municipal office at:

_____

_____

If you have any questions please contact _____ at (_____) _____ - _____.
Please note: this survey may be followed by a partial or whole door-to-door survey.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: _____ PHONE: (_____) _____ - _____
ADDRESS: _____

1. How many people live in your house? _____ SEASONAL ALL YEAR
2. How large is your lot? _____
3. Do you have more than one sewage system on your lot? Y / N
   If yes, explain: _____
4. What kind of water system do you have? WELL SPRING PUBLIC OTHER _____
   Do you treat your water? Y / N If yes, how? _____
   If you have a well: Is it DUG or DRILLED? How Deep? _____ ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE? _____
   Have you every had your water tested? Y / N When? _____
   What were the results? _____
   _____
7. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	INGROUND BED	COMMUNITY SEWER
CESSPOOL	INGROUND TRENCH	STORM SEWER
OLD WELL	ELEVATED SAND MOUND	PIPE TO DITCH
HOLDING TANK	SEEPAGE PIT	PIPE TO STEAM
PRIVY	BORE HOLE	PIPE TO SURFACE
PUBLIC SEWER	OTHER _____	

8. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	INGROUND BED	COMMUNITY SEWER
CESSPOOL	INGROUND TRENCH	STORM SEWER
OLD WELL	ELEVATED SAND MOUND	PIPE TO DITCH
HOLDING TANK	SEEPAGE PIT	PIPE TO STEAM
PRIVY	BORE HOLE	PIPE TO SURFACE
PUBLIC SEWER	OTHER _____	

9. How old is your system? _____ Was it permitted? Y / N When? _____
10. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS
ODORS	WATER PONDING OR SURFACING
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME
SYSTEM OVERFLOW	OTHER _____

11. Was your system ever pumped out? Y / N How often? _____ Last time? _____
    If it was pumped, was it inspected for cracks or broken baffles? _____
12. Was your system ever repaired? Y / N When? _____ By permit? Y / N
    What part was repaired or replaced?
    TANK: REPAIRED/REPLACED LINE: REPAIRED/REPLACED DRAIN FIELD: REPAIRED/REPLACED
13. Are you aware of any other sewage problems?
14. COMMENTS:

Sample

Example 2

MUNICIPAL

ADDRESS

PLEASE READ THIS MESSAGE AND FILL OUT THIS SURVEY FORM

Your municipality has begun to gather information about the current quality and safety of the water we drink. We need to know about current methods of sewage disposal to assure that these do not affect your water. We are also doing this in a way that can be used to update our Pennsylvania Sewage Facilities Act Plan under the related state regulations (Title 25 Pa. Code Chapter 71).

In order to gather this information while respecting your privacy, we ask that you fill out and return this mail survey concerning water supply and water disposal by _____.

This survey will be used in a variety of ways.

1. It will be used to plan a survey sampling of existing wells in our community. If your well is selected for sampling, please allow the person collecting the samples to collect these at or as close to the well as possible. Due to factors of cost v. benefit, not every well can be laboratory tested.

2. It will be used to identify where we need to send people to verify facts. This is part of the process called "validating the survey." If your property is selected for such a visit, we ask your indulgence and cooperation.

3. It may provide information that will require us to look at certain areas of our community in more detail than other areas, possibly surveying for information door-to-door in a few selected situations.

Please return this form to us. Your answers are very important. Part of the process of "validating the survey" depends on the return of a set minimum number of survey forms. If our mail survey does not meet this minimum, we may have to conduct what is called a "comprehensive door-to-door survey" concerning the same information, at greater expense. In this survey, we hope to obtain data which meets part of the minimum legal standards on which to base future public decisions concerning questions on local water supply safety and wastewater disposal.

Thank you for your help in this survey effort. Your answers will be used so that public money is wisely spent.

Respectfully,

Township Supervisor

Consultant

THIS SURVEY FORM CONCERNS THE HOME LOCATED AT:

Street Address _____

1. Your home gets water from:
   _____ a. a community water supply.
   _____ b. a private well.
   _____ c. a spring or cistern. Please specify. _____

* * * * * * * * * * * * * * * * * *

ANSWER THIS SECTION ONLY IF YOU HAVE A WELL OR OTHER PRIVATE WATER SOURCE.

2. Do you have your water periodically tested? __ Yes ___ No

3. If you have had your well tested within the last 2 years, what were the values reported for:
   Nitrate _____ ppm as N
   Bacteria _____ (MPN)
   Other _____
   measurements _____

4. How is your well constructed? When was it constructed?
   _____ Drilled _____ Dug Year _____

5. How deep is your well? _____ feet

6. How far away is your well located from the nearest septic system or cesspool (your own or a neighbor's)?
   _____ less than 100 feet _____ more than 100 feet

7. Is the water from your well treated by any method?
   _____ Water Softener _____ Chlorinator
   _____ Ultraviolet light treatment unit
   _____ Other-Specify Treatment _____

8. In the event it is necessary to collect a water sample in your area, would you permit your well to be tested at no expense to you?
   _____ Yes _____ No

* * * * * * * * * * * * * * * * * *

9. Do you have:
   _____ a. a dug privy
   _____ b. a vaulted privy
   _____ c. a chemical toilet
   _____ d. an incinerating toilet
   _____ e. a water (flush) toilet

Pilot Test

Below, in the first column, are the various disposal methods and systems that are used by people to dispose of water. Because construction of houses can be unique, please check the method that is used to remove water and dispose of it from the indicated areas of your home.

	Bathroom	Kitchen	Laundry and Toilet
SEPTIC TANK	_____	_____	_____
CESSPOOL	_____	_____	_____
OLD WELL	_____	_____	_____
HOLDING TANK	_____	_____	_____
PRIVY	_____	_____	_____
INGROUND BED	_____	_____	_____
INGROUND TRENCH	_____	_____	_____
ELEVATED SAND MOUND	_____	_____	_____
SEEPAGE PIT	_____	_____	_____
BORE HOLE	_____	_____	_____
FIELD DRAIN	_____	_____	_____
COMMUNITY SEWER	_____	_____	_____
STORM SEWER	_____	_____	_____
PIPE TO DITCH	_____	_____	_____
PIPE TO STREAM	_____	_____	_____
PIPE TO SURFACE	_____	_____	_____

	Sump Pump	Roof Drains	
SEPTIC TANK	_____	_____	_____
CESSPOOL	_____	_____	_____
OLD WELL	_____	_____	_____
HOLDING TANK	_____	_____	_____
PRIVY	_____	_____	_____
INGROUND BED	_____	_____	_____
INGROUND TRENCH	_____	_____	_____
ELEVATED SAND MOUND	_____	_____	_____
SEEPAGE PIT	_____	_____	_____
BORE HOLE	_____	_____	_____
FIELD DRAIN	_____	_____	_____
COMMUNITY SEWER	_____	_____	_____
STORM SEWER	_____	_____	_____
PIPE TO DITCH	_____	_____	_____
PIPE TO STREAM	_____	_____	_____
PIPE TO SURFACE	_____	_____	_____

MAINTENANCE PRACTICES

How often do you have your septic tank pumped out?

_____ Never _____ At least once a year
_____ At least once every 3 years
_____ At least once every 5 years
_____ Only when the system backs up. (Please indicate how often this occurs by marking both this space and the appropriate ones from above.)

When your septic system is pumped out, is the interior inspected for cracks or broken baffles?

_____ Yes _____ No

Has your system ever been repaired? ____ Yes ____ No
Did the repair require a permit? ____ Yes ____ No

If your system was repaired, what was done?

	Repaired	Replaced
SEPTIC TANK	_____	_____
BUILDING SEWER LINES	_____	_____
PUMP (IF APPLICABLE)	_____	_____
DISTRIBUTION BOX (IF APPLICABLE)	_____	_____
DRAIN FIELD	_____	_____

OTHER QUESTIONS CONCERNING YOUR PROPERTY

Have you noticed any of the following near your septic system?

Water ponding on the ground? _____
Spongy areas or damp ground? _____
Odors? _____
Very heavy growth of grass? _____

Does your home experience
water backing up into the house? _____
Extremely sluggish drains? _____
Septic system overflows? _____

If any of the above occur, during what season do they most frequently happen?

Spring ____ Summer ____ Fall ____ Winter ____

If there are any matters involving drinking water or the disposal of sewage that you feel should be looked into by your municipality, please phone _____.

HOUSEHOLDER'S

ADDRESS

SEWAGE NEEDS
MAIL SURVEY

Sample

Appendix C

Mapping

All properly completed needs identification and documentation activities will involve maps, to one extent or another. Since a wide range of base map products may be available for a particular area, no single map type is identified for use in preparing and documenting Act 537 Plan needs. The following guidelines must be considered when using maps in an Act 537 Plan.

A. **All Maps Must Be User Friendly**. Maps are tools utilized to convey information. Not everyone expected to work with plan's maps will be an experienced map reader.

B. **Control the Amount and Type Of Information Depicted On Each Map**. Use appropriate data groupings such that the resulting map is neither sparse nor overcrowded with symbology. A single map containing a future sewer service perimeter and malfunctions, holding tanks, wildcat stream discharges, etc. is a good example of appropriate data grouping. A single map depicting all well sample locations, with each sample location followed by a complex code or symbol showing the results of all testing completed for that well, will often result in an unusable (and likely ignored) map. In this latter example, the sheer volume of data presented at each sample point overwhelms all but the most experienced map user.

C. **A Suggested Map Scale is 1 Inch To 1,000 Feet (1"=1000')**. This figure represents a scale that will normally provide sufficient detail (lot lines) for most large area projects. Plan mapping, however, is not specifically limited to this scale. Other scales are acceptable and are appropriate for use when addressing smaller areas. Most importantly, the map MUST be of appropriate scale to adequately depict the intended objective.

D. **Ideally, a Minimum of Six Maps are Included in an Adequate Needs Identification**. Since local conditions affecting the number of required maps may vary greatly, deviations from this guidance should be coordinated with specific regional offices. Listed below, these maps are not exclusive and, while they represent a generic minimum, additional maps depicting additional information or other combinations of data may always be included in a plan as supporting documentation.

    1. All OLDS and indicating Malfunctions (confirmed, suspected), Holding Tanks and Wildcat Discharges.

    2. All OLDS and indicating status (permitted, pre-regulatory, unpermitted and potential malfunctions).

    3. Soil suitability for OLDS (SCS soil limitations, Hydric soils, wetlands and, after considering system type, slopes 0-15 percent, 15.1-25 percent, greater than 25 percent.

4. All water well and stream sample locations and depictions of biologic test results. Include delineated areas of community or public water supply service.

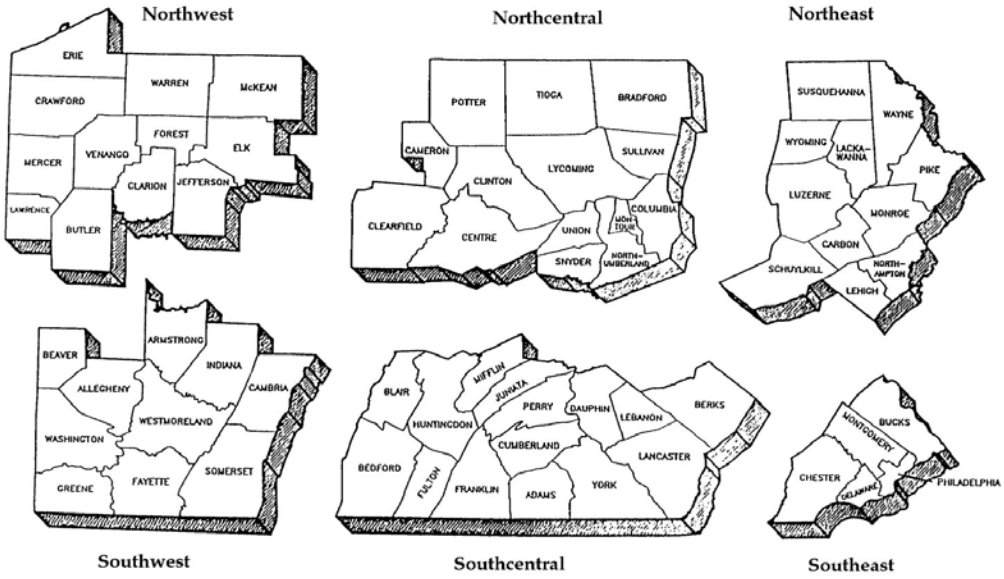
5. All water well and stream sample locations and depictions of chemical test results. Include delineated areas of community or public water supply service.

6. Geologic mapping when geological conditions impact needs identification. Areas utilizing borehole disposal or old mine diggings and areas discharging to karst topography (an area subject to formation of sinkholes and closed depressions due to underlying limestone geology) are two examples of geology impacting needs identification.

Additional mapping will be necessary to comply with all criteria established in DEP's technical guidance document *A Guide for Preparing Act 537 Update Revisions* (DEP ID: 362-0300-003) available electronically on DEP's website (Keyword: "Wastewater") or by calling the DEP regional office serving your area. If in doubt, coordinate map requirements with DEP's regional office.

For more information,
call the local DEP regional office or contact:

Department of Environmental Protection
Bureau of Point and Non-Point Source Management
Division of Planning and Permitting
P.O. Box 8774
Harrisburg, PA 17105-8774
717-787-8184



DEP REGIONAL OFFICES

Southeast Region
2 E. Main St.
Norristown, PA 19401
Main Telephone: 484-250-5900
24-hour emergency: 484-250-5900

Counties: *Bucks, Chester, Delaware, Montgomery and Philadelphia*

Southwest Region
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Main Telephone: 412-442-4000
24-hour emergency: 412-442-4000

Counties: *Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland*

South-central Region
909 Elmerton Ave.
Harrisburg, PA 17110
Main Telephone: 717-705-8200
24-hour emergency: 1-877-333-1904

Counties: *Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York*

Northwest Region
230 Chestnut St.
Meadville, PA 16335-3481
Main Telephone: 814-332-6945
24-hour emergency: 1-800-373-3398

Counties: *Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren*

Northeast Region
2 Public Square
Wilkes-Barre, PA 18701-1915
Main Telephone: 570-826-2511
24-hour emergency: 570-826-2511

Counties: *Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming*

North-central Region
208 W. Third St., Suite 101
Williamsport, PA 17701
Main Telephone: 570-327-3636
24-hour emergency: 570-327-3636

Counties: *Bradford, Cameron, Clearfield, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union*

Bureau of Point and Non-Point Source Management
P.O. Box 8774
Harrisburg, PA 17105-8774
717-787-8184

3800-BK-DEP1949 Rev. 1/2014

An Equal Opportunity Employer

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix F ■ Sewage Needs Surveys

2 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-01-0007.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: THOMAS MCWITT PHONE NO: 570-640-1803

ADDRESS: 293 RIDGE RD CITY: SCHUYLER STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? N/A SEASONAL ALL YEAR
2. How large is your lot? 1.5 ACRE What is the best time and day of the week to contact you? ANY TIME
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? N/A ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	(OTHER: (specify)) DON'T KNOW

8. How old is your system? N/A Was it permitted? (Y) / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	NEVER NOTICED ANY OF THEM
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NO
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / N When? N/A By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 8/6/18

RECEIVED
AUG 13 2018
Systems Design Engineering

(2)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-01-0007.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: THOMAS McNULTY

STREET: 200 N. RT 183 CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? (C) / R Owner/Renter? (O) / R No. of Employees/Residents: VACANT

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 15 Ac. No. of dwelling units? _____ (One) or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	(OTHER: (specify)) Don't Know

How old is your system? _____ Was it permitted? (Y) / N When? _____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner/property owner not on site. Tank located on right side of building. No apparent malfunction.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

4 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-02-0006.005

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED) 570 cell 2054583

NAME: Jeff Berger PHONE NO: 570 385-4576

ADDRESS: 125 Deertrail Dr CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1 acre What is the best time and day of the week to contact you? in the PM
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Water Softner

   If you have a well: Is it DUG or (DRILLED)? How Deep? 180' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/(DOWN SLOPE)?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? Hard water
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 30 yr Was it permitted? (Y) / N When? 1985 ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 5-6 years Last time? Nov 2014
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: No Problems

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Jeff Berger Date 5-30-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-02-0006.005

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Jeff Berger

STREET: 125 Deertrail Dr. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 180 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 1 acre No. of dwelling units? 1 One or more sewage systems? 1 Hard water

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 30 years Was it permitted? (Y) / N When? 1985

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? No

Have you ever had your system pumped out? (Y) / N How often? 5-6 years Last time? Nov. 2014

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

6

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

18-03-011.008

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: David Bergman PHONE NO: (717) 215-5198

ADDRESS: 156 Ranch Rd. CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? ≈ 1 Acre What is the best time and day of the week to contact you? Tues, Wed, Thurs 9-7
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? ≈75 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2004 What were the results? good water No problems
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1950 (238 yrs) Was it permitted? (Y) / N When? 1979? 1950?
9. Have you ever noticed any of the following near your septic system? No

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 2 every 3 yrs Last time? 7-13-15 5-23-18
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: David Bergman David Bergman Date 5-19-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-03-011.008

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: David Bergman

STREET: 156 Ranch Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? ± 75 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2004 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? ± 1 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 38 year Was it permitted? (Y) / N When? 1979

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 2-3 year Last time? 7/13/15 + 5/23/18

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-03-0015.001

8

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: PHILLIP & JEAN FAUST PHONE NO: 570-449-7408

ADDRESS: 71 RANCH RD CITY: SCH. HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 4.2 What is the best time and day of the week to contact you? Anytime
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 85' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 95 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Approx. 40 yrs. Was it permitted? (Y) / N When? 4/5/1977
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? (Y) / N How often? 3-5 yrs. Last time? Approx. 3 yrs. ago
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? N/A By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: We have never had a problem with our septic system in 30 years. The septic system is original & was already installed when we bought the property.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Jean Faust Date 5/27/2018

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-03-0015.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Phillip & Jean Faust

STREET: 71 Ranch Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 85 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 95 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 4.2 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 30+ years Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 3-5 years Last time? ± 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

9

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-03-0015.008

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Joseph E, Rosemary McDemus PHONE NO: 570 366-2856

ADDRESS: 39 Ranch Rd. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1.5 acres What is the best time and day of the week to contact you? Weekdays 9-3
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 160 ft. Cased? (Y) N
5. How far is the well or spring from the drain field? about 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 39 years Was it permitted? (Y) N When? 1979
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? once Last time? ?
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Please call before coming onto property

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Joseph E McDemus Date 5/18/2018

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-03-0015.008

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Joseph E, Rosemary McDemus

STREET: 39 Ranch Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 160' FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? ±100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.5 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 39 years Was it permitted? (Y) / N When? 1979

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? once Last time? ?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?____

Has the system ever been repaired? Y / (N) When?____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature:____ Date____

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-05-0020.000

11 North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: KEIL, PHILIP S. + MARY A. KEIL PHONE NO: 570-628-5646

ADDRESS: 499 GORDON NAGLE TRAIL CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? _____ SEASONAL ALL YEAR
2. How large is your lot? 10 ACRES What is the best time and day of the week to contact you? MOST MID DAYS
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 100 FEET ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1975 Was it permitted? (Y) / N When? 1975
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? EVERY TWO OR THREE YEARS Last time? TWO YEARS AGO
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: TANK LINE AND DRAIN FIELD ARE MONITORED REGULARLY FOR PROPER SYSTEM FUNCTIONING.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

I will respond readily to your phone call at 570-628-5646.

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Philip S. Keil Sr. Date MAY 26, 2018.

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0020.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Philip S. + Mary A. Keil

STREET: 499 Gordon Nagle Trail CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: ?

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 100 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 10 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 41 years Was it permitted? (Y) / N When? 1975

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 2-3 years Last time? 2 years Ago

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: Date

12 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-05-0027.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Joseph A. DeMarkis 17 Gracy Rd. Pottsville, PA 17901 PHONE NO: 570 628 5067

ADDRESS: _____ Y: _____ STATE: PA ZIP: _____

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 5/8 Acre What is the best time and day of the week to contact you? MORNINGS
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? @80' ft. (Cased)? Y / N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
~~OLD WELL~~	INGROUND TRENCH	~~COMMUNITY SEWER~~	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	(STORM SEWER)	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) SAME

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? UNKNOWN Was it permitted? Y / N When? UNKNOWN
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
~~WATER PONDING OR SURFACING~~	SYSTEM OVERFLOW	
(SLUGGISH DRAINS)	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? SEASONAL
10. Have you ever had your system pumped out? (Y) / N How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Attached

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 6/27/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0027.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Joseph A. DeMarkis

STREET: 17 Gracy Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 80 FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 5/8 Acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	(STORM SEWER)	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
(SLUGGISH DRAINS)	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? Seasonal

Have you ever had your system pumped out? Y / (N) How often? ____ Last time?____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?____

Has the system ever been repaired? Y / (N) When?____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:____ Date____

14

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-05-0048.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: ROBERT AARER PHONE NO: 570-622-2764

ADDRESS: 12 MARTHA LANE CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1.4 ACRES What is the best time and day of the week to contact you? MON-FRI AFTER 6 PM
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y (N)
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? ? 20 PLUS YEARS Was it permitted? Y / N When? ? ?
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? EVERY 7-10 YRS Last time? 2012
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Robert F. Aarer Date 5/24/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0048.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Robert Arner

STREET: 12 Martha Lane CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.4 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? +20 years Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 7-10 years Last time? 2012

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

15

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-05-0050.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Robert M. Henry PHONE NO: (570) 622-6336

ADDRESS: 1080 Bakery Road CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your (house) (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? ? Less ½ acre What is the best time and day of the week to contact you? 8:00-4:00 Mon-Thurs
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify) None

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 5 to 10 years Last time? Spring 2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? ~~Y / N~~

    None What part? ~~TANK LINE DRAIN FIELD~~ Was it repaired or replaced? ~~REPAIRED / REPLACED~~
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Robert M. Henry Date 5/21/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0050.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Robert M. Henry

STREET: 1080 Bakery Road CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? < 1 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 5-10 years Last time? Spring 2017

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

16 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-05-0068.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: GERALD & JANET (MURRAY) ENDERS PHONE NO: 570-622-9510

ADDRESS: 1254 RT. 61 S CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .2 acres What is the best time and day of the week to contact you? Tues/Thurs a.m.
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / N If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? PRIOR TO 1990 Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? AS NEEDED Last time? 5/12/2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Gerald Enders Janet Enders Date 5-29-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0068.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Gerald + Janet (Murray) Enders

STREET: 1254 S. Rt 61 CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 0.2 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? Pre 1990 Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? as necessary Last time? 5/12/17

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** √ **Potential Malfunction** __

(Holding tank)

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

17 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-05-0068.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: GERALD & JANET ENDERS PHONE NO: 570-622-9510

ADDRESS: 1254 RT. 61 S. CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .2 acres What is the best time and day of the week to contact you? Tues or Thurs AM
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? PRIOR TO 1990 Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	NO
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? AS NEEDED Last time? 5/12/2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Gerald Enders Janet Enders Date 5-29-18

17

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0068.00

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Gerald + Janet Enders

STREET: 1254 Rt 61 S. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 0.2 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? Prior to 1990 Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? as needed Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Suspected Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

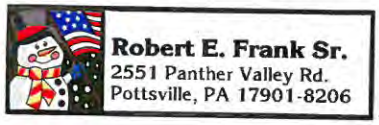
18

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

18-05-0087.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: 

PHONE NO: (570) 385-1818

ADDRESS: ____ CITY: ____ STATE: PA ZIP: ____

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 25 ACRES What is the best time and day of the week to contact you? ANY DAY.
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: ____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? ____

   If you have a well: Is it (DUG) or DRILLED? How Deep? 20 FEET ft. Cased? Y / (N)
5. How far is the well or spring from the drain field? ____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? ____ What were the results? ____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 128 YEARS, 1890 Was it permitted? Y / N When? ____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? ____
10. Have you ever had your system pumped out? Y / N How often? ____ Last time? ____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? ____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: ____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Robert E. Frank Sr. Date 21 MAY 2018

18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0087.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Robert E. Frank Sr

STREET: 2551 Panther Valley Rd CITY: Pottsville STATE: PA ZIP: 17901-8206

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents:_____

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): (DUG) / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 25 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

likely

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

- creek in backyard
- pre-reg system
- no room for repl system unless crossing creek

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____ Reccomend regular pumping

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** ✓ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Suspected Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

20 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-05-0091.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Heruse Breslin PHONE NO: 570-449-2948

ADDRESS: 2629 Panther Valley Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (~~if business, how many employees~~)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .9 What is the best time and day of the week to contact you? any
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER Sch. Haven

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where does~~ your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ?? Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every 4 yrs Last time? 7/18
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Heruse Breslin Date 7/25/18

RECEIVED
JUL 27 2018
Systems Design Engineering

20

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0091.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 9/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Denise Breslin

STREET: 2629 Panther Valley Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y (N) When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 0.9 No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 4 yrs Last time? 7/18

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? (Y) / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

21 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-05-0100.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Joseph Reppert PHONE NO: _____

ADDRESS: 71 Becktville Rd CITY: Pottsville STATE: PA PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 6 SEASONAL (ALL YEAR)
2. How large is your lot? 2 acres What is the best time and day of the week to contact you? 6pm
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Do Not Know Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	No to all listed
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Joseph Reppert Date 5/31/2018

21

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0100,000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Joseph Reppert

STREET: 71 Beckville Road CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents: 6

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ± 50' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 2 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y (N) How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

- tanks serviced when they moved in
- reccommend pumping
- steep slopes
- limited repl. area

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/21/18

22 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-26-0119.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: BLANCHE KOCHLER PHONE NO: _____

ADDRESS: 10 1ST ST CITY: SCH. HAVEN STATE: PA PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 100 X 75 What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? water soften system (SALT)

   If you have a well: Is it DUG or (DRILLED?) How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2017 What were the results? water system installed
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 2017 Last time? 2018
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N 1 time per year
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Blanche Koehler Date 7/25/18

22

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0119.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 8/25/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Blanche Kochler

STREET: 10 1st Street CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? Y / N What?: TC FC N other: system installation

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of ~~sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? 1/year Last time? 2018

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 8/25/18

28 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-06.0030.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Chad Boltz PHONE NO: 717-821-1608

ADDRESS: 125 Hemlock Drive CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 5 SEASONAL (ALL YEAR)
2. How large is your lot? 4.5 Acres What is the best time and day of the week to contact you? Anytime
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED?) How Deep? 63 ft. Cased? Y / N not sure
5. How far is the well or spring from the drain field? 70 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 11/16 What were the results? aproved by FHA loan
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? _____ Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

   (GREEN LUSH GRASS) (WETNESS OR SPONGY AREAS ODORS)
   (WATER PONDING OR SURFACING) SYSTEM OVERFLOW
   SLUGGISH DRAINS WASTEWATER BACKING INTO THE HOME OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 2 years Last time? 11/16
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Chad Bolt Date 7/29/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0030.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 10/19/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Chad Boltz

STREET: 125 Hemlock Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 5

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 63' FEET Is it cased? Y / N ?

How far is the well or spring from the drain field? 70 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 11/16 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 4.5 acres No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

(GREEN LUSH GRASS)	(WETNESS OR SPONGY AREAS ODORS)
(WATER PONDING OR SURFACING)	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME
	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 2 years Last time? 11/16

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** V **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date _____

29 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** · 18-06-0036.006

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: James & Susan Stein PHONE NO: 570-385-4585

ADDRESS: 114 E Second Mt Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? ____ SEASONAL ALL YEAR
2. How large is your lot? 2.5 Ac What is the best time and day of the week to contact you? Weekday - 6pm 7pm
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: ____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? ____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 120' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 80 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 1988 What were the results? All Good
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where does~~ your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Came with the House Was it permitted? Y / N ? When? ____
9. ~~Have you ever~~ noticed any of the following near your septic system?

(GREEN LUSH GRASS)	WETNESS OR SPONGY AREAS	ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? ~~Spring~~ Spring
10. Have you ever had your system pumped out? (Y) / N How often? 5-or-6 times in 30 years Last time? 4 years Ago
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / N When? ____ By permit? Y / N

    What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / REPLACED

    Line from House to tank 4 years ago Replaced - It was crushed by Coal Truck
13. Comments: ____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date 7/26/18

29

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0036.006

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: James + Susan Stein

STREET: 114 E Second Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? 120' FEET Is it cased? Y / N

How far is the well or spring from the drain field? 80 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 1988 Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 2.5 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 5/6 times in 30 yrs Last time? 4 years ago

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

31

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-06-0037.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Sue Dermo PHONE NO: 570-294-0371

ADDRESS: 51 Hemlock Drive CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? 50 X 75 What is the best time and day of the week to contact you? Anytime after 5:00
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED?) How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? N/A ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	~~PIPE TO DITCH~~
CESSPOOL	INGROUND BED	BORE HOLE	(PIPE TO STEAM)
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 8 yrs. Was it permitted? (Y) N When? 2009
9. Have you ever noticed any of the following near your septic system?

N/A

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME

OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? 2x per yr. Last time? 5/12/18
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? N/A By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Susan A Dermo Date May 24, 2018

31

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0037.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Susanne Dermo

STREET: ~~59~~ 51 Hemlock Dr CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ±50' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 50x75 No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) Pipe observed at stream; no flow

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 8 yrs Was it permitted? Y / N When? Permit on file

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? 2x/yr Last time? 5/12/18

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: - Holding tank -no replacement option

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** ✓ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

32 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-06-0041.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: LEON DIERWECHTER PHONE NO: 570 385-3467

ADDRESS: 28 E. 2nd MT. ROAD CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 5 ACRES What is the best time and day of the week to contact you? ANYTIME
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 141 ft. (Cased)? (Y) / N
5. How far is the well or spring from the drain field? 60 FT ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y)/ N When? 2 What were the results? GOOD
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1963 Was it permitted? (Y)/ N When? 1963
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NONE
10. Have you ever had your system pumped out? (Y) N How often? ONCE Last time? 2007
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? (Y) N When? ~~2007~~ -2007 By permit? Y / (N)

    What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)
13. Comments: A PIPE GOING INTO THE CESS POOL BROKE & WAS REPLACED

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y)/ N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Leon W. Dierwechter Date 5-29-18

32

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0041.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Leon Diefenbacher

STREET: 28 E Second Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 60 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1963 Was it permitted? (Y) / N When? 1963 res spec - pre regulatory ; no problems

Have you every noticed any of the following near your septic system? plenty of replacement area

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? none

Have you ever had your system pumped out? (Y) / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? (Y) / N When? 2007 By permit? Y (N)

What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: changed ~~to~~ clay to plastic pipe

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

35

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-06-0057.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: HARRY ECKERT PHONE NO: 570 573 1033

ADDRESS: 82 W 2ND MT. ROAD CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 1-ACRE What is the best time and day of the week to contact you? ANYTIME
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? ULTRA VIOLET LIGHT

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N 350 FT
5. How far is the well or spring from the drain field? 80 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2017 What were the results? FECAL COLIFORM
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 58 YRS Was it permitted? (Y) / N When? 1958 ??
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? EVERY 2-3 YRS Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Harry Eckert Date 5-17-18

35

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0057.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Harry Eckert

STREET: 82 N 2nd Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL (UV DISINFECTION) SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? (Y) / N What?: (TC) FC N other: ____

How large is your lot? 1 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 58 yr Was it permitted? (Y) / N When? 1958?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 2-3yr Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: drainfield cannot be located unless drainfield is verified steep slopes - pre reg system

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** ✓ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

18-06-0071.004

37

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Craig and Judith Gerber PHONE NO (570) 385-2512

ADDRESS: 383 Manheim Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 3.4 acres What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? 125 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
~~CESSPOOL~~	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 40 years Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? n/a
10. Have you ever had your system pumped out? (Y) N How often? every two years Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Craig R Gerber Date 5/22/18

37

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0071.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Craig + Judith Gerber

STREET: 383 Manheim Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 3.4 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 2 years Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/21/18

38 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-06-0086.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Edward Edling PHONE NO: 570 385 4890

ADDRESS: 97 Dogwood Dr. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1 acre What is the best time and day of the week to contact you? Any
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 120 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/DOWN SLOPE? even

   Have you ever had your water tested? (Y) / N When? 20y What were the results? OK
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	(OTHER: (specify) French drain

8. How old is your system? 1971 Was it permitted? (Y) / N When? 1971
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 5 years Last time? 3 yrs
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: X Edward D Edling Date 5 27 18

38

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0086003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Edward Edling

STREET: 97 Dogwood Dr CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1971 Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 5 years Last time? 3 yrs

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

39 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 8-08-2018 .009

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: George & M. Joanne Uritis PHONE NO: 570-385-3583

ADDRESS: 7 Harmony Hill CITY: Cressona STATE: PA ZIP: 17929

1. How many people live in your house (if business, how many employees)? 2 (SEASONAL) ALL YEAR
2. How large is your lot? 3 Acres What is the best time and day of the week to contact you? Monday 5 P.M.
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? water Softner / florescent light

   If you have a well: Is it DUG or (DRILLED)? How Deep? 250' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 300 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2018 What were the results? iron / no Coloforms
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1976 Was it permitted? Y / N ? When? ? we didn't build house.
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every couple yrs Last time? 2015
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? (Y) / N When? about 10 yrs ago By permit? Y / N ?

    What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? (REPAIRED) / REPLACED
13. Comments: Tree roots interfering - All Cut out

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: George A. Uritis Date 7/24/18

(39)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0010.009

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: George and M. Joanne Uritis

STREET: 7 Harmony Hill CITY: Cressona STATE: PA ZIP: 17929

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? 300 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? 2018 Any contamination? Y / N What?: TC FC N other: iron

How large is your lot? 3 acres No. of dwelling units? 1 One or more sewage systems? No

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 42 years Was it permitted? unknown Y / N When?

Have you every noticed any of the following near your septic system? none

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? every 2 year Last time? 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / N When? 10 years ago By permit? Y / N unknown

What part? TANK LINE DRAIN FIELD Tree roots cut out Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner not home/no answer. Cleanouts observed in front yard. No apparent malfunctions. Standing water in VCP standpipe.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

40 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-06-0118.004

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: CURTIS TOBASH PHONE NO: 570-640-1972

ADDRESS: 15 TOBASH DR. CITY: SCH HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 7 ACRES What is the best time and day of the week to contact you? ANYTIME
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? WATER SOFTENER

   If you have a well: Is it DUG or (DRILLED)? How Deep? 140 ft. Cased? (Y) / N 100
5. How far is the well or spring from the drain field? 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? NO BACTERIA
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 32 Was it permitted? (Y) / N When? 1986
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NO
10. Have you ever had your system pumped out? (Y) N How often? WHEN NECESSARY Last time? 2013
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: I THINK A SEWER SYSTEM WOULD BE A GOOD IDEA

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Curtis Tobash Date 7-26-18

40

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0118.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Curtis Tobash

STREET: 15 Tobash Dr CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When?_____ Any contamination? Y / (N) What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 32 Was it permitted? (Y) / N When? 1986

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? when necessary Last time? 2013

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

41 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-08-0030.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Michael Burik PHONE NO: 570 385 7674

ADDRESS: 200 Morningside Dr CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 2 acres What is the best time and day of the week to contact you? Evening
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2001 What were the results? Clear
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 35+ Was it permitted? (Y) / N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	(None)
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Septic every 3 years Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Michael Burik Date 7/23/18

41

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0119.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Blanche Kozhler

STREET: 10 1st St CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? Y (N) What?: TC FC N other: installation

How large is your lot? 100x75 No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? 1/yr Last time? 2018

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: unknown Drainfield

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 8/28/18

43

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-06-0174.002

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: David and Anne Mae Jenkins PHONE NO: 570-385-5401

ADDRESS: 116 Briar Road CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1.8 acres What is the best time and day of the week to contact you? Monday after 9:30am
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 85 ft. Cased? (Y) N
5. How far is the well or spring from the drain field? Over 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	(SEEPAGE PIT)	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 47 years Was it permitted? (Y) N When? 03/30/1971
9. Have you ever noticed any of the following near your septic system? None

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? 3 times Last time? 2010
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? (Y) N When? 02/2001 By permit? Y (N) was told didn't need a permit to work on existing system

    What part? TANK (LINE) (DRAIN FIELD) Was it repaired or replaced? REPAIRED (REPLACED)
13. Comments: See attached paperwork to confirm survey/property was built and remains in the family.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: David E Jenkins Date 05/23/18

SDE

Systems Design Engineering, Inc.
Engineers • Surveyors • Planners • Construction Managers

August 19, 2005

North Manheim Township
Board of Supervisors
303 Manheim Road
Pottsville, PA 17901

Dear Board Members:

In response to a complaint filed regarding surface discharge of sewage effluent at 116 & 118 Briar Road, I met with Mr. David Jenkins and his son Mr. Gerald Jenkins on 8/4/05 at their homes to investigate the validity of the allegations. The site visit was unannounced to ensure observation of any suspicious activity if occurring.

I walked over the property and around the homes and found nothing of concern. There were no signs of a surface discharge and there were no odors observed. The weather that day was hot and dry, which would have aided in the detection of either of these conditions had they existed.

The complaint stated, "They don't have a system to take care of their wash, dish or bathroom wastes." After researching historical files, it has been documented that on February 19, 2001, Mr. Carl Wolfe from our office observed the re-routing and connection of a graywater discharge pipe to the existing building sewer that leads to a septic tank and reported drainfield (please refer to enclosed letter and sketch drawing). I inspected the area around the former graywater discharge and found nothing of concern. I observed the concrete lid that Mr. Jenkins stated was the lid to his septic tank. He then showed me the area where he stated his drainfield is located. Again, I found nothing of concern.

In summary, my investigation on 8/4/05 found no violations of the state's sewage regulations. No surface discharges or odors were noted and; therefore, no further action is warranted at this time.

Sincerely,
Systems Design Engineering, Inc.

Scott Steffey
Sewage Enforcement Officer

cc: 05-0164-0301
Complainant (Catherine Lutz)
Mr. David Jenkins

e:\data\projects\n.manheim\05-0164-0301\lutz

1032 James Drive • Leesport, PA 19533 • Tel. 610-916-8500 • Fax 610-916-8501 • www.sdei.net • sde@sdei.net
P.O. Box 353 • Schuylkill Haven, PA 17972 • Tel. 570-385-5549
Boyertown, PA • Tel. 610-369-1319

HS - 8329

PERMIT
for
INSTALLATION OF SEWAGE DISPOSAL SYSTEM

Pursuant to Application for Sewage Disposal System number #088 473
a permit is hereby issued to:

NAME OF APPLICANT

DONTON, FRANK J.

ADDRESS OF APPLICANT — TELEPHONE NUMBER

R.D. #1 - SCHUYLKILL HAVEN, PA. 17972

PROPERTY ADDRESS OF SITE FOR SEWAGE DISPOSAL SYSTEM

SAME

For the installation of a sewage system as set forth in the approved application subject to the rules, regulations and standards of the Pennsylvania Department of Health. This Permit issued under the provisions of the "Pennsylvania Sewage Facilities Act", the Act of January 24, 1966 (P.L. 1535), as amended, is subject to the following conditions:

1. Except as otherwise provided by the Act or regulations of the Pennsylvania Department of Health, no part of the installation shall be covered until inspected by the approving body and approval to cover is within this Permit.
2. This Permit may be revoked for the reasons set forth in Section 7 (f) of the Act.
3. This Permit may not be assigned or transferred.

ADDITIONAL CONDITIONS:

Approval to Cover

Signature of Enforcement Officer

Date

Date of Issuance of Permit 3-30-71

NORTH MANHEIM TWP. SUPERVISORS
Approving Body

Signature of Enforcement Officer

The basis for the issuance of this Permit is the information supplied in the Application for Sewage Disposal System and other pertinent data concerning soil absorption tests, topography, lot size, and sub-soil ground-water table elevations. The permit only indicates that the issuing authority is satisfied that the installation of the Sewage Disposal System is in accordance with the Rules, Regulations and Standards adopted by the Pennsylvania Department of Health under the provisions of the Pennsylvania Sewage Facilities Act, the Act of January 24, 1966 (P.L. 1535), as amended. The issuance of a Permit shall not preclude the enforcement of other health laws, ordinances or regulations in the case of malfunctioning of the system.

TO BE POSTED AT THE BUILDING SITE

FORM PROVIDED BY THE PENNSYLVANIA DEPARTMENT OF HEALTH

NORTH MANHEIM TOWNSHIP

ENFORCEMENT OFFICE

ACT #537 - PENNSYLVANIA SEWAGE FACILITIES ACT

April 6, 1971

Mr. Frank J. Donton
R.D. #1 Schuylkill Haven
Pennsylvania 17972

Dear Mr. Donton:

Attached herewith find your approved "Application for Permit" for an on-lot sewage system to be constructed at

116 Briar Road
North Manheim Twp.

This approval is subject to the following noted conditions:

NONE

Let me again inform you that it will be necessary for you to inform this office before closing-in any portion of this system; at that point, I will make an appointment with you or your representative to review the final construction for final approval.

Very truly yours,

Merlyn J. Jenkins,
Enforcement Officer
North Manheim Township
Room 301 - City Hall Building
Pottsville, Pennsylvania 17901

622-7740

CC: Pennsylvania Department of Health
Supervising Sanitarian 1 Print

Secretary, North Manheim Township Supervisors

HS 811 REV. 11/68

APPLICATION FOR SEWAGE DISPOSAL SYSTEM

088473

PART I GENERAL INFORMATION (PRINT PLAINLY OR TYPE)

LOCAL (2-6) [2] DO NOT FILL IN

NAME APPLICANT: DONTON, FRANK J.

TELEPHONE NO.:

ADDRESS OF APPLICANT: R.#1 SCHUYLKILL HAVEN, PA. ZIP CODE: 17972 COUNTY: SCHUYLKILL

SITE PROPERTY ADDRESS (13-36): BRIAR ROAD - NORTH MANHEIM TOWNSHIP - SCHUYLKILL - BORO, CITY OR TWP. COUNTY HOUSING SUBDIVISION: LEVI DONTON TRACT

LOT SIZE (37-42) SQ. FT.: 3 ACRES 130,000

TYPE OF ESTABLISHMENT: [X] RESIDENTIAL (43) [ ] NON-RESIDENTIAL (43)

[3] NO. OF BEDROOMS (44-45) GALS/DAY (46-50) (NON-RESIDENTIAL ONLY)

NEAREST PUBLIC SEWER (51-56) (WITHIN ONE MILE): NA FT.

PUBLIC SEWER SIZE (57-58): NA IN.

TYPE WATER SUPPLY (59): [X] PRIVATE [ ] PUBLIC [ ] OTHER

TYPE SEWAGE SYSTEM (60): [X] INDIVIDUAL [ ] COMMUNITY

FOR ENFORCEMENT OFFICER USE

DATE RECEIVED: MAR. 29, 1971

SITE (61): [X] SUITABLE [ ] UNSUITABLE

APPLICATION ACTION (62): [X] PERMIT ISSUED [ ] PERMIT NOT REQUIRED [ ] DENIED

DATE OF ACTION (63-68): MAR. 30, 1971

FINAL INSPECTION (27): [ ] APPROVED [ ] NOT APPROVED

DATE OF ACTION (28-33):

PART II SITE SUITABILITY DATA [3]

SOIL TYPE (13-16): AQS-2EE-73 54-B-2 HARTLETON CHANNERY SILT LOAM CODE 0759

SLOPE (17-18): 4 % CODE 02

PERCOLATION RATE (19-20): 40.00 MIN/IN CODE 04

DEPTH TO BEDROCK (21-23): 08+ FT.

DEPTH TO SEASONAL HIGH WATER TABLE (24-26): NA FT.

PART III PRIMARY AND SECONDARY TREATMENT

PRIMARY TREATMENT

(34) [X] SEPTIC TANK [ ] AERATION TANK

MATERIAL OF TANK (35): CONCRETE

TOTAL LIQUID CAPACITY OF TANK (37-41): 900

SECONDARY TREATMENT

PROPOSED METHOD OF EFFLUENT DISPOSAL (36)

A [ ] TILE FIELD B [X] SEEPAGE BED C [ ] SERIAL DIST. D [ ] DEEP WIDE TRENCHES E [ ] SEEPAGE PIT F [ ] SAND FILTER [ ] OTHER (SPECIFY)

PART IV PLOT PLAN

PLEASE INCLUDE THE FOLLOWING ON YOUR SKETCH:

1. PROPERTY LINES
2. ADJACENT STREETS
3. LOT DIMENSIONS IN FEET
4. LOCATION OF:
   - A. BUILDING
   - B. TREATMENT TANK
   - C. ALL WELLS & SPRINGS
   - D. LEACHING SYSTEM
     - DEPTH 3 FT.
     - LENGTH 45 FT.
     - WIDTH 20 FT.
5. REFERENCE TO NORTH
6. DIRECTION OF SLOPE
7. DISTANCE TO NEAREST STREAM (IF ANY)

NUMBER OF COMPARTMENTS (42-43): 1

DISTANCE FROM NEAREST PRIVATE WATER SUPPLY (44-48): 100 FT.

TOTAL ABSORPTION AREA (49-52) SQ. FT.: 900

SEE ATTACHED PLAN #8378

SIGNATURE OF ENFORCEMENT OFFICER

SIGNATURE OF APPLICANT: Frank J Donton

FORM PROVIDED BY THE PENNSYLVANIA DEPARTMENT OF HEALTH

APPLICANT

43

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0174.002

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: David and Anne Jenkins

STREET: 116 Briar Road CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C (R) Owner/Renter? (O)/ R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.8 acres No. of dwelling units? ____ One or more sewage systems? _____

What ~~kind of sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
~~CESSPOOL~~	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	~~ELEVATED SAND MOUND~~	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: repl area possible

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/21/18

45 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-07-0006.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: RONALD UMPHREY PHONE NO: 570-366-2170

ADDRESS: 560 E. 2nd. MTN ROAD CITY: SCH. HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 1/3 A. What is the best time and day of the week to contact you? ? ?
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: NO
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? YES, BACTERIA LIGHT

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N 285 FT. DEEP
5. How far is the well or spring from the drain field? 150 ft. Is well (UP) / DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? LAST YEAR 2017 What were the results? NO BACTERIA
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? ? ? Was it permitted? Y / N When? ? ? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? AS NEEDED Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? (Y) / N When? WHEN I MOVED IN By permit? (Y) N

    What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: NEW DRAIN FIELD FOR SINKS & WASHER

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Ronald W. Umphrey Date 7/26/2018

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0006.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 10/19/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Ronald Emphrey

STREET: 560 E 2nd Mtn. Road CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 285 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 150 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL (UV DISINFECTION) SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 1/3 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? Y (N) What part?

Has the system ever been repaired? (Y) / N When? By permit? Y / N

What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: Greywater has its own drainfield

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓ (cesspool) - No Malf.

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0018.000

46 North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Arthur L Readenbach PHONE NO: 366-[illegible]2197

ADDRESS: 388 E 2nd Mt. Road CITY: Sch Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 12 Acs What is the best time and day of the week to contact you? Keep Trying
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 300' 400' ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 30 years Was it permitted? Y (N) When? _____
9. Have you ever noticed any of the following near your septic system? No

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS	ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NA
10. Have you ever had your system pumped out? Y / N How often? 2 Last time? 3 years
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Arthur L Readenbach Date 5/23/18

46

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0018.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Arthur Baudenbush

STREET: 388 E. 2nd Mtn Rd CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C (R) Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 400' FEET. Is the well (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 12 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 30 yr Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 3 yr Last time? 3 years

If it was pumped, was it inspected for cracks or broken baffles? (Y) N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: (tp) area possible

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

47

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0028.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: James R. Bohrman PHONE NO: 570-366-2793

ADDRESS: 1066 W Market St. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 150 x 150 What is the best time and day of the week to contact you? Any Time
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 200 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 75 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2011 What were the results? SD
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	(SEEPAGE PIT)	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1965-53 yrs. Was it permitted? Y (N) When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? every 3 yrs. Last time? 8/1/17
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: James Bohrman Date May 20, 2018

47

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0028.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot McCaffrey Date: 6/21/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: James Bohrman

STREET: 1066 W Market St CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 75 FEET. Is the well (UPHILL) DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2011 Any contamination? Y / (N) What?: TC FC N other:____

How large is your lot? 150x150 No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	(SEEPAGE PIT)	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	(SEEPAGE PIT)	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: pre-reg system; no visible malfunction; limited repl area

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

26 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0038.005

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Stephen + Rita KARNOVAL PHONE NO: 570-640-8097

ADDRESS: 80 N. Greenview Rd. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL ALL YEAR
2. How large is your lot? ½ acre What is the best time and day of the week to contact you? Sat. 10-4
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Water Softener

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 200 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? Iron
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 40 yrs. Was it permitted? (Y) / N When? 1978
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 5 yrs. Last time? 2013
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Stephen Karnoval Date 7/24/2018

49 25 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-07-0038.005

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500. 7/25/18 (NM) SM

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Stephen & Rita KARNOVAL PHONE NO: 570-640-8097

ADDRESS: 80 N. Greenview Rd. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL ALL YEAR
2. How large is your lot? ½ acre What is the best time and day of the week to contact you? Sat. 10-4
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Water Softener

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 200 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? Iron
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 40 yrs. Was it permitted? (Y) / N When? 1978
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 5 yrs. Last time? 2013
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Stephen Karnoval Date 7/24/2018

49

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0038.005

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M. Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Stephen + Rita Karnoval

STREET: 80 N Greenview Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 200 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? _____ Any contamination? Y / N What?: TC FC N other: Iron

How large is your lot? 1/2 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 40yr Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? every 5 yr Last time? 2013

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

50 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0042.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: MARION E. LIDDLE PHONE NO: 570-366-2090

ADDRESS: 960 W MARKET ST CITY: SCHUYLKILL HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? 7/8 ACRE What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 125 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? _____ ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 30 YRS AGO What were the results? OK
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 20 YRS Was it permitted? (Y) / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NONE
10. Have you ever had your system pumped out? (Y) / N How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Marion E Liddle Date 7-29-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0042.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 10/19/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Marion E. Liddle

STREET: 960 W. Market St. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 125 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? ? FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 30 years Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 7/8 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 20 years Was it permitted? (Y) / N When? 1998

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? Last time?

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

52

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0052.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: KOLBE'S POOLS & MORE 574 ROUTE 61 SOUTH SCHUYLKILL HAVEN, PA 17972 PHONE NO: _____

ADDRESS: _____ CITY: _____ STATE: PA ZIP: _____

1. How many people live in your house (if business, how many employees)? 3 SEASONAL ALL YEAR
2. How large is your lot? 1 1/4 What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 150 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Don't Know Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? Once Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date Partner

52

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0052.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/21/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Kolbe's Pools and More

STREET: 574 Route 61 South CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? (C) R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1 1/4 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? once Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Creek at property line; limited/no repl area; septic tank riser shows signs of overflow
dispersal area could not be located

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** √ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/21/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

53 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-07-0057.004

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: David Lauderman PHONE NO: 570-366-8505 EXT 112

ADDRESS: 705 Ridge Road CITY: Orwigsburg STATE: PA ZIP: _____

1. How many people live in your house (if business, how many employees)? 3 SEASONAL ALL YEAR
2. How large is your lot? 1 ACRE What is the best time and day of the week to contact you? 9:00 - 5:00
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ?? ft. Cased? Y / N
5. How far is the well or spring from the drain field? ?? ft. Is well UP/DOWN SLOPE? ??

   Have you ever had your water tested? (Y) / N When? 2008 What were the results? Good
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ?? Was it permitted? Y / N When? ??
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	NONE
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 4-5 years Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7/25/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0057.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 10/19/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: David Laudman

STREET: 705 Ridge Road CITY: Orwigsburg STATE: PA ZIP: 17961

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? ? FEET Is it cased? Y / N ?

How far is the well or spring from the drain field? ? FEET. Is the well: UPHILL / DOWNHILL ?

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2008 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 1 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 4-5 year Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? ?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

54 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-07-0057.005

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: GITA PATEL PHONE NO: 570 3661723

ADDRESS: 620 RARING DR. CITY: ORWIGSBURG STATE: PA ZIP: 17961

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 1-3 ACRE What is the best time and day of the week to contact you? 8-5 PM
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? SOFTNER

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? 300 ft. Is well UP/DOWN SLOPE? ✓

   Have you ever had your water tested? (Y) / N When? 2015 What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 35 YRS Was it permitted? (Y) / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? EVERY 3 YRS. Last time? 2015
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Gita Patel Date 7-25-18

54

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0057.005

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Gita Patel

STREET: 620 Baring Dr CITY: Orwigsburg STATE: PA ZIP: 17961

Commercial/Residential? C / (R) Owner/Renter? O / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ≥300 FEET. Is the well: UPHILL / even DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? 2015 Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.3 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of ~~sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 35 yr Was it permitted? (Y) / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 3yr Last time? 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

56 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-09-0051.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Michael and Deborah Mattera PHONE NO: (570)449-4287

ADDRESS: 136 W. Adamsdale Rd. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 2½ acres What is the best time and day of the week to contact you? T, Th after 10:00 am
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ✓ NOT SURE ft. Cased? Y / N UNKNOWN
5. How far is the well or spring from the drain field? approximate 200 FT. ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2000 What were the results? water fit to drink
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? 18 years Was it permitted? (Y) / N When? 2000
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every 4 to 5 years Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N UNKNOWN
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Deborah J Mattera Date 7-27-18

56

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-09-0051.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 8/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Michael and Deborah Mattera

STREET: 136 W. Adamsdale Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ≈200' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2000 Any contamination? Y / (N) What?: TC FC N other: ___

How large is your lot? 2 1/2 acres No. of dwelling units? ____ One or more sewage systems? NO

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 18 yr Was it permitted? (Y) N When? 2000

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 4-5 yr Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

59 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0083.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Charles STANCAVAGE PHONE NO: 570-622-7261

ADDRESS: 172 E ADAMSDALE ROAD CITY: ORWIGSBURG STATE: PA ZIP: _____

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 2/3 Acre What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 250 ft. Cased? (Y) N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/(DOWN) SLOPE?

   Have you ever had your water tested? (Y) N When? 2016 What were the results? OK / HARD
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 64 yrs Was it permitted? (Y) N When? 1954
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NO
10. Have you ever had your system pumped out? (Y) N How often? when Needed Last time? 2000
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5-29-18

NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA 17901

BARBARA G. MILLER
Secretary – Treasurer

303 Manheim Road
Pottsville, PA 17901
Phone: 570-385-2778
www.northmanheimtwp.org

FOR:
172 E Adamsdale Rd.

I MANHEIM TOWNSHIP
SEWAGE FACILITIES PLAN

;E NEEDS MAIL SURVEY

E AND FILL OUT THIS SURVEY FORM ON THE BACK

Owner,

North Manheim Township has retained the services of Systems Design Engineering, Inc. (SDE) to update their Act 537 Sewage Facilities Plan in accordance with state regulations (Title 25 Pa Code chapter 71). As part of this Act 537 Sewage Facilities Planning Study, SDE has begun to gather information about the current methods of sewage disposal and condition of sewage disposal systems in the Township.

Your property has been identified as one of more than 150 properties in the Township for a sewage needs survey. Please fill out the sewage needs mailer survey form on the back of this letter to the best of your ability. Your answers are a very important part of determining if any sewage disposal problems exist in North Manheim Township, and the best and most economical way of correcting any identified problems. Once you have completed this survey form, please return it in the self-addressed stamped envelope. **Please return the survey form no-later than May 31, 2018.**

Once the survey form is returned, employees from Systems Design Engineering will need to visit your property to confirm the information on this form. There will be no need to enter your home to confirm the information; only an inspection of the outside of your property is necessary. The persons performing the survey will be either Scot McCaffrey or Ed Kopicki. They will carry appropriate identification when coming to your property. The local police will be notified of our presence. It is anticipated that these door-to-door visits will occur during the months of June and July. We ask for your indulgence and cooperation in this endeavor.

North Manheim Township thanks you for your assistance in this important study. Your answers will be used to make future public decisions concerning questions on wastewater disposal in a timely and cost effective manner.

A notice will be placed on the Township's website: www.northmanheimtwp.org. Should you have any questions feel free to contact SDE's Office at 610-916-8500 and ask for Scot McCaffrey. Mr. McCaffrey is North Manheim Township's Sewage Enforcement Officer.

Respectively,

Wayne Bowen

Wayne Bowen
North Manheim Township

59

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0083.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Charles Stancavage

STREET: 172E Adamsdale Rd CITY: Ornigsburg STATE: PA ZIP: _____

Commercial/Residential? C /(R) Owner/Renter? O /(R) No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG /(DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y /(N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2016 Any contamination? Y /(N) What?: TC FC N other: ____

How large is your lot? 2/3 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? as needed Last time? 2000

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y /(N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: limited repl area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

61

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-07-0085.011

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Robert Crawford JR PHONE NO: 570-624-6666

ADDRESS: 198 E. Adamsdale RD. CITY: Orwigsburg STATE: PA ZIP: 17961

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 1 Acre What is the best time and day of the week to contact you? Afternoon
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? filters

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 400 ft. Is well UP/DOWN SLOPE? UNK.

   Have you ever had your water tested? (Y) / N When? 10/16 What were the results? Good
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 10 yrs Was it permitted? (Y) / N When? UNK.
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Tld ever 3yrs Last time? 3/10/17
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Home was Purchased in 11/16 w/ full inspections & have All the Blueprints for the Home that can Better help.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date 5/24/18

61

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0085.011

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Robert Crawford Jr

STREET: 198 E. Adamsdale Rd CITY: Orwigsburg STATE: PA ZIP: 17961

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / ~~DRILLED~~ How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 400 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION SOFTENER ION ~~OTHER~~ filters

Was the water ever tested? (Y) / N When? _____ Any contamination? Y / (N) What?: TC FC N other: _____

How large is your lot? 1 acre No. of dwelling units? _____ One or more sewage systems? _____

What kind ~~of sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	~~INGROUND BED~~	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does ~~your~~ laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	~~INGROUND BED~~	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? looks older than ~~1~~ 70 yr Was it permitted? Y / (N) When? unk

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 3 yr Last time? 3/10/17

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: didn't permit any work in past 10 yr; yard slopes to flat wet area in back; seasonal depressions

Do I have your permission to confirm this information by looking around? Y / N wet

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/22/18

63 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-08-0005.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: SARA THORNTON PHONE NO: 570 593 5381

ADDRESS: 2503 PANTHER VALLEY CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 4.5 acres What is the best time and day of the week to contact you? AM
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) N If yes, how? Salt

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N NO CLUE
5. How far is the well or spring from the drain field? 150 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Came with house Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 8-10 yrs Last time? 2010
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Sara Thornton Date 8/3/18

(63)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0005.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: SARA THORNTON

STREET: 2503 Panther Valley Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 150 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 4.5 Ac. No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 8yr. Last time? 2010

If it was pumped, was it inspected for cracks or broken baffles? Y (N) What part? _____

Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner not home/no answer. Cleanouts and tank lid to right of home. No apparent issues/malfunctions.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

68

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0018.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Zachary Ebling PHONE NO: 570-385-3349

ADDRESS: 1819 sweet Arrow Lake CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? None SEASONAL ALL YEAR
2. How large is your lot? ? What is the best time and day of the week to contact you? Mon-Friday 8-5
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING PUBLIC (OTHER) None

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / (N)
5. How far is the well or spring from the drain field? 0 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	(OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	(OTHER: (specify)

8. How old is your system? None Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME (OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: The Building is A Storage Ganage. only

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date May-24-2018 Ganage Located AT 1822 sweet Arrow Lake

68

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0018.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Zachary Ebling

STREET: 1818 Sweet Arrow Lake Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents:_____

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC (OTHER) none

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? n/a FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? none Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / (N) How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: no water | no sewer | no room for septic | gravel lot w/ building on it

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

#69 41? **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** (8-08-0030.00)

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Michael Burick + Shannon PHONE NO: 570 385 7674

ADDRESS: 200 Morningside Dr CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 2 acres What is the best time and day of the week to contact you? Evening
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2001 What were the results? Clear
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 35+ Was it permitted? (Y) N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	(None)
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? Septic every 3 years Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: MJ Burick Date 7/23/18

(41) 69.

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0030.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: MICHAEL BURCIK

STREET: 200 Morning Side Drive CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2001 Any contamination? Y (N) What?: TC FC N other: ____

How large is your lot? 2 Ac. No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 35+ Yrs. Was it permitted? (Y) / N When? _____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? Every 3 Yrs Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner not at home, tank appears to be in middle of driveway, bed location unknown. No cleanouts visible. Well in front of house.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

70 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0033.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Larry L. Luckenbill JK PHONE NO: 570 527-5454

ADDRESS: 174 Morningside Dr CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 99'x254' .58 Acres What is the best time and day of the week to contact you? 9AM to 8PM
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Calcite Media - Next Freeboard back wash unit. To balance PH

   If you have a well: Is it DUG or (DRILLED)? How Deep? 120 ft. ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 200 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 10 to 12y What were the results? water tested good for consumption. Sorry unable to locate last water test results. ggo

6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Im not sure it was here when we moved in, in 1995 Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every 3 to 5 years Last time? 10-30-2015
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N Im not sure.
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5-27-2018

70

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0023.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Larry Luckenbill

STREET: 174 Morning Side Dr CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 200 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION SOFTENER ION (OTHER) calcite media

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? .58 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL) next to driveway	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 3-5 yr Last time? 10/30/15

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Pre-reg cesspool, little repl area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction __ Confirmed Malfunction __ Suspected Malfunction √ Potential Malfunction __**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/22/18

73

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0043.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Teresa Lawler. PHONE NO: 570-593-6610

ADDRESS: 132 Morningside Dr. CITY: Pottsville STATE: PA PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? <1 acre What is the best time and day of the week to contact you? anytime
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: not anymore - closed 2nd when purchased house
4. What kind of water system do you have? WELL SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? clorox

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N no idea - can't find type or Deed.
5. How far is the well or spring from the drain field? >50 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? 2017 What were the results? bacteria
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) (before purchased house gray water went to other system via yard)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? no idea Was it permitted? Y / N When? no clue - bought house 2 yrs ago.
9. Have you ever noticed any of the following near your septic system?

   GREEN LUSH GRASS — WETNESS OR SPONGY AREAS ODORS
   WATER PONDING OR SURFACING — SYSTEM OVERFLOW
   SLUGGISH DRAINS — WASTEWATER BACKING INTO THE HOME — OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? seasonal I think but always owner was also very into treating lawn.
10. Have you ever had your system pumped out? Y / N How often? when bought home Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N or every 3 yr schedule
12. Has the system ever been repaired? Y / N When? 2016 before purchased home By permit? Y / N ?? per previous owners.

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Septic system & drainfield along with water tested with purchase of home May 26, 2016!

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Teresa Lawler Date 5/19/18.

73

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0043.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Serena Camlin

STREET: 132 Morningside Dr CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 750 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? Y / N What?: TC FC N other: bacteria

How large is your lot? 1 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? - looks good today

(GREEN LUSH GRASS)	(WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? seasonal Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 2016 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: limited repl. area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

75 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-08-0048.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: KENNETH W. ALBITZ PHONE NO: 570-385-7288

ADDRESS: 155 MORNINGSIDE DR. CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 20 ACRES What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 240' ft. Cased? 80' (Y) N
5. How far is the well or spring from the drain field? 250 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

X SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	X ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

X SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	X ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 22 YRS 1996 Was it permitted? (Y) / N When? 1996
9. Have you ever noticed any of the following near your septic system? no

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 1 Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y (N)

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Kenneth W. Albitz Date 7/30/18

(75)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0048.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zach Sullivan Date: 10/31/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: KENNETH ALBITZ

STREET: 155 Morning Side Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 240 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 250 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? ____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 20 Ac. No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 22YRS (1996) Was it permitted? (Y) / N When? 1996

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? ____

Have you ever had your system pumped out? (Y) N How often? 1 Last time? ____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? 2017

Has the system ever been repaired? Y / (N) When? ____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner not home/no response. Well cover in front of property, septic tank/mound in property rear on left side. No apparent issues.

Do I have your permission to confirm this information by looking around? Y / (N)

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

77 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 8-17-0008.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: James Gavalis PHONE NO: 610-662-2111

ADDRESS: 3[redacted] Mengle ST CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 0.1 Acre What is the best time and day of the week to contact you? Day
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 100' ft. Cased? Y / N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/(DOWN SLOPE)?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where~~ does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Unknown Was it permitted? (Y) / N When? ?
9. Have you ever noticed any of the following near your septic system? No

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? Unknown
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date 7/25/18

77

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-17-0008.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 8/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: James Gavalis

STREET: 3 Mengle St CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: UPHILL / (DOWNHILL)

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? .01 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / (N) How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: small lot ; likely seepage pit

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** √

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/12/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

78 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0063.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: LEN NEGRISTINSKY PHONE NO: 570-385-4103

ADDRESS: 113 SHADY LANE RD CITY: _____ STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? ½ ACRE What is the best time and day of the week to contact you? 3PM M-F
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? ? ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? JUNE 2017 What were the results? 0% BACTERIA
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

? SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
? CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 70 YRS Was it permitted? Y / N ? When? —
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? (Y) / N How often? 2 YRS Last time? 2 YRS
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? Y / N When? 25 YRS AGO By permit? Y / N UNK

    What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)
13. Comments: TERRA-COTTA BROKE + [redacted] REPLACED WITH PVC

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date MAY 20, 2018

78

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-00631000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY ~~OVERCAST~~ RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Leonard Nebistinsky

STREET: 113 Shady lane CITY: _____ STATE: PA ZIP: 17922

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? June 2017 Any contamination? Y / N What?: TC FC N bactera other: ____

How large is your lot? 1/2 acre No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY) c/o under front deck c/o at B/W off road

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) - possible pipe to storm inlet in front of property

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 20 yrs Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 2yr Last time? 2yr ago

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 25 yr ago By permit? Y / N

What part? TANK ~~LINE~~ DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: poss pipe at storm drain; limited repl area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** √ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/22/18

79 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-08-0068.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Mary Christenson (Robert C. Kessler, POA) PHONE NO: 973/809-9032

ADDRESS: 65 Hawk Lane CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 8 acres What is the best time and day of the week to contact you? After 5:00 P.M.
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Water Softener

   If you have a well: Is it DUG or (DRILLED)? How Deep? ? ft. Cased? Y / N
5. How far is the well or spring from the drain field? ? ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system? No

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? Y / N How often? ? Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? ? By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Robert C. Kessler, POA Date 7/31/18

79

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0068.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: MARY CHRISTENSON

STREET: 65 Hawk Lane CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? O / (R) No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 8 Ac. No. of dwelling units? 1 One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? NO.

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Cleanouts visible in front of house, left side. Homeowner did not respond/not home. No apparent malfunction.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Zachary Sullivan Date 10/31/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

81

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0072.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: THEODORE M, LORETTA E STALLER SR PHONE NO: 570-385-2853

ADDRESS: 30 KRAFT LANE CITY: SCH. HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 1 ACRE What is the best time and day of the week to contact you? LATE PM
3. Do you have more than one sewage system on your lot? Y /(N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y /(N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 98 ft. Cased? (Y) N
5. How far is the well or spring from the drain field? 200 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y)/ N When? 5 YRS What were the results? OK
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where does~~ your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 1972 Was it permitted? (Y)/ N When? 1972
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	(WASTEWATER BACKING INTO THE HOME)	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? ONLY ONCE PIPE BROKE REPAIRED
10. Have you ever had your system pumped out? (Y)/ N How often? EVERY 3YRS Last time? 2 YRS AGO
11. If it was pumped, was it inspected for cracks or broken baffles? (Y)/ N
12. Has the system ever been repaired? (Y)/ N When? 2 YRS AGO By permit? Y / N

    What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)
13. Comments: OUR SEPTIC SYSTEM IS WORKING FINE.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Theodore Staller Sr. Date 5.22.18

81

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0072.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Theodore Staller

STREET: 20 Kraft Lane CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) N When? 5yr Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	(WASTEWATER BACKING INTO THE HOME)	OTHER: (specify)

S. M. only for reason stated below

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: everything appears fine; poss repl area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** √ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

83 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY.** 18-08-0082.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: David Moyer PHONE NO: 570-385-7871

ADDRESS: 76 Gladys Ln CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .7AC What is the best time and day of the week to contact you? M-F After 6 Pm
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? NA ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y)/ N When? 2008 What were the results? Hard
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? NA Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 5 yrs Last time? 2 yrs
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date _____

(83)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0082.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Zack Sullivan Date: 10/31/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: DAVID MOYER

STREET: 76 Gladys Lane CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? 2008 Any contamination? Y / N What?: TC FC N other: Hard

How large is your lot? 7 Ac. No. of dwelling units? 1 One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? Every 5 Yrs Last time? 2 Yrs Ago

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner present. Tank in rear (30ft from house), bed below it.

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true. correct and complete.

Signature: Zachary Sullivan Date 10/31/18

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

86

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0141.002

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: William Jefferson PHONE NO: 570-385-1167

ADDRESS: 6 Bensinger Dr CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 2.1 A What is the best time and day of the week to contact you? Any Time
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 160' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100' + ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? Low mineral OR IRON ?
6. What ~~kind~~ of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 39 years Was it permitted? (Y) / N When? 1977 ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Approx. every 5 yrs Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: All Lots in This development were perked before sale by NORM Bensinger (developer)

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: William Jefferson Date 5/17/18

86

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18

Municipality: North Manheim Township County: Schuylkill Survey Tech: SCOT M Date: 6/18/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: William Jefferson

STREET: 6 Bensinger Dr CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of ~~sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED ~~SAND~~ MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	~~INGROUND BED~~	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 39 yr Was it permitted? (Y) / N When? 1977

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 5 yr Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: plenty of repl area

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/18/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

87

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-042.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: James R Tothero PHONE NO: 570 527 7474

ADDRESS: 923 Schuylkill Mt. Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 2.25 Acres What is the best time and day of the week to contact you? Cell phone
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? Water treatment System is basement

   If you have a well: Is it DUG or (DRILLED)? How Deep? (ft. Cased? (Y) / N 380
5. How far is the well or spring from the drain field? 500 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? Year Ago What were the results? Water treatment for Sulfer
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? 13 yrs Old Was it permitted? (Y) / N When? 13 yrs when house was built.
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	None
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? None
10. Have you ever had your system pumped out? (Y) / N How often? At least 2 1 3 times Last time? 2 yrs ago
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? ~~Y / N~~ When? About 8 yrs By permit? Y / N

    What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Sub pump kept going bad due to the pipes they Replaced all piping

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: James R Tothero Date 5/26/18

87

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0142.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: ~~KW~~ James Tathero

STREET: 923 Schuylkill Mtn Rd CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 500 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? year ago Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 2.25 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 13 yr Was it permitted? (Y) / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 2-3 times Last time? 2 yr ago

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? (Y) / N When? 8 yr ago By permit? Y / N

What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/22/18

88

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-08-0142.004

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: William Reber PHONE NO: 570-385-5638

ADDRESS: 795 Sch mtn Rd CITY: Sch Haven STATE: (PA) ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 1.3 Acres What is the best time and day of the week to contact you? anytime
3. Do you have more than one sewage system on your lot? Y /(N) If yes, explain: ____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y)/ N If yes, how? water softener, UV light

   If you have a well: Is it DUG or (DRILLED)? How Deep? 300ft, ft. Cased? (Y)/ N

5. How far is the well or spring from the drain field? 200 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y)/ N When? — What were the results? See above

6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 40 years Was it permitted? (Y)/ N When? 1977
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? —
10. Have you ever had your system pumped out? (Y) N How often? Every 5-7yrs Last time? 2014
11. If it was pumped, was it inspected for cracks or broken baffles? Y /(N)
12. Has the system ever been repaired? Y /(N) When? — By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: ____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: William A Reber Date 5/24/2018

88

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0142004

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY ~~OVERCAST~~ RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: William Reber

STREET: 795 Sch Mtn Rd CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 200 FEET. Is the well (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL (UV DISINFECTION) (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(~~INGROUND TRENCH~~)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED ~~SAND MOUND~~	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? ~~ever~~ 5-7yrs Last time? 2014

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: 3 trench depressions visible in area, system ok

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

89 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-08-0142.017

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: John Murphy PHONE NO: 570 854 0037

ADDRESS: 839 Schuylkill Mtn Rd CITY: Schuylkill Haven STATE: PA PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? ~2 acres What is the best time and day of the week to contact you? Sat-Sun 9-5
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? Y / N Not sure
5. How far is the well or spring from the drain field? 100 ft. Is well UP/(DOWN) SLOPE?

   Have you ever had your water tested? (Y) / N When? 9/2012 What were the results? Not Sure
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? 8 years Was it permitted? (Y) / N When? 2010
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5/28/18

89

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0142.017

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY ~~OVERCAST~~ RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: John Murphy

STREET: 839 Schuylkill Mt Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / ~~DRILLED~~ How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) N When? 2017 Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 2 acres No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	~~ELEVATED SAND MOUND~~	STORM SEWER	OTHER: (specify)

Where does ~~your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 8 yr Was it permitted? (Y) / N When? 2010

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: has replacement area designated

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 6/22/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

91

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-09-0014.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Mark R Mengel PHONE NO: 570 573-3578

ADDRESS: 327 W. ADAMSDALE RD. CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 3/4 Acre What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) N 200
5. How far is the well or spring from the drain field? 45 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) N When? 1991 What were the results? Good
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 27 Was it permitted? (Y) N When? 1991
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Mark R Mengel Date 5/23/18

91

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-09-0014.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 6/22/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Mark R. Mengel

STREET: 327 W. Adamsdale Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 45 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 1991 Any contamination? Y / (N) What?: TC FC N other: ____

How large is your lot? 3/4 acre No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY) valve on tank outlet?

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
~~OLD WELL~~	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	(PIPE TO DITCH) ✓
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

cannot verify vegetation too thick

How old is your system? 27 Was it permitted? (Y) / N When? ?

Have you every noticed any of the following near your septic system? - rear yard is ditch/pond - no repl area options

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 6/22/18

93 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-09-0034.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Donna Bauer PHONE NO: 570-385-1006

ADDRESS: 276 W. Adamsdale Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? .6 What is the best time and day of the week to contact you? any
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? water softener

   If you have a well: Is it DUG or (DRILLED)? How Deep? ? ft. Cased? Y / N ?
5. How far is the well or spring from the drain field? ? ft. Is well UP/DOWN SLOPE? ?

   Have you ever had your water tested? (Y) / N When? 2014 What were the results? high calcium
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT (2 vaults)	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) kitchen

SEPTIC TANK	PRIVY	SEEPAGE PIT	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 56 yrs Was it permitted? Y / N ? When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y (N) How often? _____ Last time? 2014 before purchased
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? Y / N ? When? ? By permit? Y / N ?

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED ?
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Donna Bauer Date 5/28/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-09-0034.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 7/2/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Donna Bauer

STREET: 276 W. Adamsdale Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? ? FEET Is it cased? Y / N ?

How far is the well or spring from the drain field? ? FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2014 Any contamination? Y / N What?: TC FC N other: Calcium

How large is your lot? 0.6 acre No. of dwelling units? 1 One or more sewage systems? none

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	(SEEPAGE PIT)	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) Kitchen water only

SEPTIC TANK	PRIVY	SEEPAGE PIT	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 56 years Was it permitted? Y / N? When?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? Last time? not since 2014

If it was pumped, was it inspected for cracks or broken baffles? Y / N ? What part?

Has the system ever been repaired? Y / N ? When? ? By permit? Y / N ?

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Kitchen water should be directed to Septic Tank

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

94 56 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-09-0051.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

8/28/18 Scot NM

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Michael and Deborah Mattera PHONE NO: (570) 449-428;

ADDRESS: 136 W. Adamsdale Rd. CITY: Sch. Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 2½ acres What is the best time and day of the week to contact you? T, Th after 10:00 am
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ✓ NOT SURE ft. Cased? Y / N Unknown
5. How far is the well or spring from the drain field? approximate 200 FT. Is well (UP) / DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2000 What were the results? water fit to drink
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? 18 years Was it permitted? (Y) / N When? 2000
9. Have you ever noticed any of the following near your septic system? NO

   GREEN LUSH GRASS
   WATER PONDING OR SURFACING
   SLUGGISH DRAINS
   WETNESS OR SPONGY AREAS ODORS
   SYSTEM OVERFLOW
   WASTEWATER BACKING INTO THE HOME
   OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every 4 to 5 years Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N UNKNOWN
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Deborah J Mattera (Date) 7-27-18

94

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-09-0051,000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 8/28/18

Weather: ~~SUNNY~~ OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Michael and Deboran Mattera

STREET: 136 N. Adamsdale Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents:_____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / ~~DRILLED~~ How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) N When? 2000 Any contamination? Y / (N) What?: TC FC N other:____

How large is your lot? 2 1/2 acres No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
~~CESSPOOL~~	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(~~ELEVATED SAND MOUND~~)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 18 yr Was it permitted? (Y) N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? every 4-5 yr Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

96

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-10-0015.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Eugene A Rossman PHONE NO: 570-366-1564

ADDRESS: 11 Meadow Dr. CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? Approx 1 acre What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: no
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? water softener, ultra violet light

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? ?/60 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? Ph. call said ok Kimmel + Sons
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
~~CESSPOOL~~	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where does~~ your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Approx 30 yrs. Was it permitted? (Y) / N When? Not sure
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NO
10. Have you ever had your system pumped out? (Y) / N How often? every 3 yrs. Last time? 3/23/17
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? Dont know By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Eugene Brossman Date _____

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0015.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 7/2/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Eugene Brossman

STREET: 11 Meadow Dr. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? +100 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? ±100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL (UV DISINFECTION) (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? ? Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 1 acre No. of dwelling units? 1 One or more sewage systems? One

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ± 30 years Was it permitted? (Y) / N When? Not Sure

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 3 years Last time? 3/23/17

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? ?

Has the system ever been repaired? Y / N ? When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

100

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

18-10-0105.003

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: DONALD LEININGER PHONE NO: (570) 385-5469

ADDRESS: 1005 WOODLAND DR CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .45 ACRE What is the best time and day of the week to contact you? ANY
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 225 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 50 YEARS Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? EVERY 2 YRS Last time? APR-2018
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5/17/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0105.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 7/2/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Donald Leininger

STREET: 1005 Woodland Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 225 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? ____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 0.65 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 50 years Was it permitted? Y / (?) N When? ____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? Every 2 year Last time? April, 2018

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? ____

Has the system ever been repaired? Y / (N) When? ____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: ____ Date ____

101 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-10-0105.011

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: William / Jennifer Easparro PHONE NO: (610) 417-1725 or 7316

ADDRESS: 1046 Woodland Dr. CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 3/4 acre What is the best time and day of the week to contact you? Any
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) N If yes, how? Filter System

   If you have a well: Is it DUG or (DRILLED)? How Deep? ? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. ~~Where does~~ your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Built 1987 Was it permitted? (Y) N When? _____
9. Have you ever noticed any of the following ~~near your septic system~~?

   GREEN LUSH GRASS — (WETNESS OR SPONGY AREAS) ODORS

   WATER PONDING OR SURFACING — SYSTEM OVERFLOW

   (SLUGGISH DRAINS) — WASTEWATER BACKING INTO THE HOME — OTHER: (specify)

   If you noticed any of the above, are they (seasonal) or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? Septic every 2 yrs. Last time? 2 month ago (may '18)
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) N
12. Has the system ever been repaired? Y / N ? When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7-31-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0105.011

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 10/30/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: William / Jennifer Easparro

STREET: 1046 Woodland Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? ? FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER Filter

Was the water ever tested? Y / N When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 0.75 acre No. of dwelling units? 1 One or more sewage systems? one

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 31 years Was it permitted? Y / N When? 1987

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS	ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round?

Have you ever had your system pumped out? Y / N How often? 2 years Last time? May 2018

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / N ? When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** ✓ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Suspected Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: Date

102

18-10-0105.017

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: John L. SLANE PHONE NO: (570) 385-4725

ADDRESS: 1026 Woodland Drive CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 0.70AS What is the best time and day of the week to contact you? 8 to 4 Mon to Wed
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? put chlorine granules in well

   If you have a well: Is it DUG or (DRILLED?) How Deep? 223' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 100 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 48 YEARS Was it permitted? (Y) / N When? 1969
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	No
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 5 YEARS Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: John L. Slane Date 5/17/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0105.011

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 7/2/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: John L Slane

STREET: 1026 Woodland Drive CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 223 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? (CL) UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? ____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 0.70 No. of dwelling units? 1 One or more sewage systems? one

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 48 years Was it permitted? (Y) / N When? 1969

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 5 years Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? ____

Has the system ever been repaired? Y / (N) When? ____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature: ____ Date ____

103

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-11-0003.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Donald Mengle PHONE NO: 570-385-1859

ADDRESS: 119 Donald Ave. CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)

2. How large is your lot? 100 ft x 150 ft What is the best time and day of the week to contact you? 10AM-2PM Not Sunday daily

3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____

4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? (Y) / N If yes, how? Martin's Water System

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N N/A

5. How far is the well or spring from the drain field? _____ ft. N/A Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? water system What were the results? Do Not recall High Chlorine 20 yr. ago Brown water at times

6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? built 1969 Was it permitted? (Y) / N When? We think so. We bought house Not from original owner

9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? only problem if Not pumped regularly

10. Have you ever had your system pumped out? (Y) / N How often? every 4 yr. Last time? March 2017

11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)

12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED lid repaired

13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Donald Mengle Date 5-20-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-11-0003.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 7/2/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Donald Mengle

STREET: 119 Donald Ave CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): ~~DUG / DRILLED~~ How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? N/A FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION SOFTENER ION OTHER Martins softener system

Was the water ever tested? (Y) / N When?____ Any contamination? Y / N Brown water What?: TC FC N other:____

How large is your lot? 100Ft X 150Ft No. of dwelling units? 1 One or more sewage systems? 1

What kind ~~of sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 49 years Was it permitted? (Y) / N When? 1969

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 4 year Last time? 3/2017

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Lid repaired

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

104 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-11-0006.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: WILLIAM F. FOTRAN JR. PHONE NO: 789-2523

ADDRESS: [illegible] CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? 1/3 ACRE What is the best time and day of the week to contact you? ANY
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? — ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 45 + Was it permitted? Y / N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? (Y) / N How often? 8 YRS Last time? 5 YRS
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N ?

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date 5/17/18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-11-0006.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/26/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: William T. Foran

STREET: 1 Elmer Ave CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1/3 Acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 45+ years Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 5 years Last time? 5 years

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

107 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-11-0024.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Carolyn M Parrell PHONE NO: 570-385-0225

ADDRESS: 110 Donald Ave CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL (ALL YEAR)
2. How large is your lot? 1/3 acre What is the best time and day of the week to contact you? mid morning
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? approx 5 1/2 yr Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? _____ Last time? 1/2 to 2yr ago
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Carolyn M Parrell Date 6-2-18

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-11-0024.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/26/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Carolyn M. Parnell

STREET: 110 Donald Ave CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1/3 Acre No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? Approx 5½ year Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? No

Have you ever had your system pumped out? (Y) / N How often? _____ Last time? 2 year ago

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/23/19

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

109 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-12-0005.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: John Renzi PHONE NO: (570) 622-3713

ADDRESS: 165 Glenworth Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 ~~SEASONAL~~ ALL YEAR
2. How large is your lot? 1.1 ~~ACRE~~ What is the best time and day of the week to contact you? (9A-5P) M-F
3. Do you have more than one sewage system on your lot? ~~Y~~ / N If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? ~~Y~~ / N If yes, how? _____

   If you have a well: Is it DUG or (DRILLED?) How Deep? 100' ft. Cased? Y / N ?
5. How far is the well or spring from the drain field? _____ ft. Is well ~~UP/DOWN~~ SLOPE? UP

   Have you ever had your water tested? ~~Y~~ / N When? _____ What were the results? _____
6. ~~What kind of~~ sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N When? ?
9. Have you ever noticed any of the following near your septic system? NO

   GREEN LUSH GRASS — WETNESS OR SPONGY AREAS ODORS
   WATER PONDING OR SURFACING — SYSTEM OVERFLOW
   SLUGGISH DRAINS — WASTEWATER BACKING INTO THE HOME — OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? 3yrs ? Last time? 7/30/18
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? 4/2010 By permit? Y / N

    What part? (TANK LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED (REPLACED)
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: John Renzi Date 7/25/18

109

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-12-0005.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 9/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: John Benzi

STREET: 165 Glenworth Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / ~~DRILLED~~ How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 1.1 acre No. of dwelling units? ____ One or more sewage systems? _____

What ~~kind of sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

(~~SEPTIC TANK~~)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) N How often? 3 yr Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) N When? 4/2016 By permit? Y / N

What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? (Y) N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

111

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-12-0008.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: IRENE M. CONWAY PHONE NO: 570-628-2886

ADDRESS: 860 CRESSONA ROAD CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? ____ SEASONAL ALL YEAR
2. How large is your lot? 3/4 ACRE What is the best time and day of the week to contact you? AFTER 10:00 AM ANY DAY
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: ____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? WATER SOFTNER FOR HARD WATER

   If you have a well: Is it DUG or (DRILLED)? How Deep? 190' ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 80 ft. Is well UP/DOWN SLOPE? DON'T KNOW

   Have you ever had your water tested? Y (N) When? N/A What were the results? N/A
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? 5 YRS old Was it permitted? (Y) / N When? 10-7-13
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? Y (N) How often? ____ Last time? ____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y (N) When? ____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: ____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Irene Conway Date 5-23-18

111

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-12-0008.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 9/12/18

Weather: SUNNY OVERCAST (RAIN) SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Conway, Irene

STREET: 860 Cressona Rd CITY: Pottsville STATE: PA ZIP:

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100+ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 0.13ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 5 years Was it permitted? (Y) / N When? 2012

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round?

Have you ever had your system pumped out? (Y) / N How often? 3 yrs Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? (Y) / N When? By permit? Y / N

What part? (TANK) LINE (DRAIN FIELD) Was it repaired or (replaced)? REPAIRED (REPLACED)

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Date

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-12-0008.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/26/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Irene M. Conway

STREET: 860 Cressona Road CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents:_____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 190 FEET Is it cased? Y / N

How far is the well or spring from the drain field? 80' FEET. Is the well: UPHILL / DOWNHILL ?

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:___

How large is your lot? 0.75 acre No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 5 years old Was it permitted? (Y) / N When? 10/7/13

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / (N) How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

114 69 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-14-0027.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Franklin Fisher PHONE NO: 570 385 5017

ADDRESS: 14 Vernon Ave. CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 200'x200' What is the best time and day of the week to contact you? variable.
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? ph correction.

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) N
5. How far is the well or spring from the drain field? 130 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? Safe.
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 30 yrs Was it permitted? (Y) N When? 1985
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? 3 yr interval Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y (N)

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Franklin Fisher Date 26 July 2018

(69) 114

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-14-0027.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Z. S. Date: 10/31/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: FRANKLIN FISHER

STREET: 14 Vernon Ave. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 130 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? _____ Any contamination? Y (N) What?: TC FC N other: _____

How large is your lot? 200' x 200' No. of dwelling units? 1 One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 30 Yrs. Was it permitted? (Y) / N When? 1985

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? Every 3 Yrs. Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Homeowner did not answer. Apparent Septic tank on left side of home. No apparent malfunction.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true. correct and complete.

Signature: Zachary Sullivan Date 10/31/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

115 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-14-0042.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: CLARENCE DOLTON PHONE NO (570) 617.3376

ADDRESS: 132 ALBERT BLVD CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? 120 What is the best time and day of the week to contact you? ANY
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 150 FT ft. Cased? Y / N
5. How far is the well or spring from the drain field? 100 ft. Is well UP/DOWN SLOPE? ?

   Have you ever had your water tested? (Y) / N When? 10 YRS What were the results? HARD WATER
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NONE
10. Have you ever had your system pumped out? (Y) N How often? EVERY 2YRS Last time? 2015
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y / N When? 1998 By permit? (Y) / N

    What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED (REPLACED)
13. Comments: STROUP BROS INSP + PUMPS SYSTEM EVERY 2YRS

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) N

CALL FIRST BECAUSE OF DOG

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5.29.18

115

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-14-0042.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: CLARENCE DONTON

STREET: 132 Albert Blvd. CITY: POTTSVILLE STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? 150 FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? 10 yrs ago Any contamination? Y / N What?: TC FC N other: Hard

How large is your lot? _____ No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? NONE

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? 2 yrs. Last time? 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 1998 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** **Confirmed Malfunction** **Suspected Malfunction** **Potential Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

117 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-14-0057.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Richard & Laura Baldwin PHONE NO: 570-385-4969

ADDRESS: 113 Albert Blvd. CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? .6 acre What is the best time and day of the week to contact you? M-F Before 9AM After 6 PM Sat- Anytime
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 180 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? approx 100 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? approx 2012 What were the results? Very Good - I was told I should bottle & sell it.
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 28 years Was it permitted? (Y) / N When? 1990
9. Have you ever noticed any of the following near your septic system? NONE

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? Every 5 years Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: Septic System Was Well Designed & Installed By Professionals - Well Water Table Avg: 80 ft.

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Richard Baldwin Date 5-17-2018

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-14-0057.00

Municipality: North Manheim Township County: Schuylkill Survey Tech: Ed Kopicki Date: 6/25/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Richard & Laura Baldwin

STREET: 113 Albert Blvd. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 180 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? ±100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2012 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 0.6 ac No. of dwelling units? 1 One or more sewage systems? no

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 28 years Was it permitted? (Y) / N When? 1990

Have you every noticed any of the following near your septic system? no

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? no

Have you ever had your system pumped out? (Y) / N How often? 5 years Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: Date

120 18-16-0004.002

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Lois Gorski PHONE NO: 570-385-4314

ADDRESS: 3 Margaret Terrace CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? APPROX 1/3 Acre What is the best time and day of the week to contact you? Any time
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? Filter

   If you have a well: Is it DUG or (DRILLED?) How Deep? ? ft. Cased? Y / N ?
5. How far is the well or spring from the drain field? ? ft. Is well UP/DOWN SLOPE? ?

   Have you ever had your water tested? (Y) / N When? MANY yrs ago What were the results? Bacteria
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Home was Built about 1968 Was it permitted? Y / N When? ?
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? _____ Last time? within last 6 months
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? Y / N ? When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Lois Gorski Date 5/19/18

120

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0004.002

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: LOIS GORSKI

STREET: 3 Margaret Terrace CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION SOFTENER ION OTHER Filter

Was the water ever tested? (Y) / N When? _____ Any contamination? (Y) / N What?: TC FC N other: Bact.

How large is your lot? .3 ac. No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 50Yrs Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? _____ Last time? 2018

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **(No Malfunction)** **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

121 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-16-0007.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: BARBARA SCOTT PHONE NO: 570-385-1717

ADDRESS: 9 WILBERT Drive CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? ½ ACRE What is the best time and day of the week to contact you? Anytime
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED?) How Deep? 200 Ft. ft. Cased? Y / N
5. How far is the well or spring from the drain field? 25 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED) ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 52 years Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
(SLUGGISH DRAINS)	(WASTEWATER BACKING INTO THE HOME)	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? Every 3 yrs. Last time? 2017
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? (Y) / N When? 2015 By permit? Y / N

    What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED (REPLACED)
13. Comments: Had new pump, pipes and wires to well replaced in March

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Barbara Scott Date 5-25-18

121

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0007.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: BARBARA SCOTT

STREET: 9 Wilbert Drive CITY: POTTSVILLE STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? 200 FEET Is it cased? Y / N

How far is the well or spring from the drain field? 25 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? ____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? .3 Ac. No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 52 yrs Was it permitted? Y / N When? ____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
~~WATER PONDING OR SURFACING~~	SYSTEM OVERFLOW	
(SLUGGISH DRAINS)	(WASTEWATER BACKING INTO THE HOME)	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? When doing Laundry

Have you ever had your system pumped out? (Y) / N How often? 3yrs Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? ____

Has the system ever been repaired? (Y) / N When? 2015 By permit? Y / N

What part? TANK (LINE) DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: Homeowner indicated back up in basement When doing Laundry.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **(Confirmed Malfunction)** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

122

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

18-16-0010.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: William J. Daubert PHONE NO: 570-687-1375

ADDRESS: 15 Cresswell Ave CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .6 Acre What is the best time and day of the week to contact you? after 6:30 P.M.
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? Unknown ft. Cased? Y / N
5. How far is the well or spring from the drain field? 180 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) N When? 2014 What were the results? O.K
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK)	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

8. How old is your system? Unknown Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? Unknown By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Bill Daubert Date 5/21/18

122

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0010.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: WILLIAM DAUBERT

STREET: 15 Cresswell Ave CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: (2)

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 180 FEET. Is the well (UPHILL) / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2014 Any contamination? Y (N) What?: TC FC N other: ____

How large is your lot? .6 Ac. No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
(HOLDING TANK) Home owner says.	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? unknown. Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y (N) How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? unknown. By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: (**No Malfunction**) **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

124 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-16-0022.001

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Eric Shaud PHONE NO: 570 593 8504

ADDRESS: 168 West End Mtnd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 75 x 150 What is the best time and day of the week to contact you? After 6pm
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N Shallow well
5. How far is the well or spring from the drain field? 50 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 1995 What were the results? High Iron
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? I Dont Know ORIGINAL Was it permitted? (Y) / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? N/A
10. Have you ever had your system pumped out? (Y) / N How often? 4yrs Last time? 2014
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: would like Homeowner Present at Time of Visit

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7/25/18

153 124

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0022.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot Mc. Date: 9/12/18

Weather: SUNNY OVERCAST (RAIN) SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Eric Shaud

STREET: 168 W. 2nd Mtn Rd CITY: Pottsville STATE: PA ZIP: _____

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? Shallow FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 50 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? _____ Any contamination? Y / (N) What?: TC FC N other: iron

How large is your lot? 75'X150' No. of dwelling units? 1 One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? Yrs Last time? 2014

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

125

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-16-0031.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Andy Cooney PHONE NO: 570-385-1800

ADDRESS: 188 W. 2nd Mt Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? _____ SEASONAL ALL YEAR
2. How large is your lot? 1/2 Acre What is the best time and day of the week to contact you? Anytime
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 75 ft. Is well (UP)/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Unknown Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Andy Cooney Date 5-18-18

125

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0031.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: ANDY GEARY

STREET: 188 W. 2nd Mountain Rd CITY: POTTSVILLE STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 75 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? .5 Ac. No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? UNKNOWN Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / (N) How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: (**No Malfunction** ✓) **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

126 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-16-0044.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: MATT PRADON PHONE NO: 570-728-9271

ADDRESS: 263 WEST 2ND MT. RD CITY: POTTSVILLE STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? 1 ACRE What is the best time and day of the week to contact you? AFTER 5PM
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? — ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? — What were the results? —
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? (>) Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y (N) How often? — Last time? —
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y (N)

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7/20/18

126

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0044.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 10/30/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: MATTHEW PRADON

STREET: 263 W. 2nd Mountain Rd. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1 Ac. No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y (N) How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **(No Malfunction)** **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 10/30/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

127 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-16-0060.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Arthur & Lora Pucci PHONE NO: 570-294-6674

ADDRESS: 247 W. 2nd Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL / (ALL YEAR)
2. How large is your lot? _____ What is the best time and day of the week to contact you? Monday
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / (N) When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? Unsure Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? _____ Last time? 2014
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / N When? Unsure By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Art J. Pucci Date 7/24/18

127

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0060.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 10/30/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: ARTHUR PUCCI

STREET: 247 W. 2nd Mountain Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / (N) When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? 1 (One) or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? UNSURE Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? _____ Last time? 2014

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **(No Malfunction)** **Confirmed Malfunction** **Suspected Malfunction** **Potential Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kpucki Date 10/30/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

130 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-17-0018.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Richard D. and Linda A. Geiger PHONE NO: 570-789-4166

ADDRESS: 154 River St. CITY: Cressona STATE: PA ZIP: 17929

1. How many people live in your house (if business, how many employees)? 2 SEASONAL ALL YEAR
2. How large is your lot? _____ What is the best time and day of the week to contact you? afternoon
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: _____
4. What kind of water system do you have? WELL SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? 70 ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? in the 80's What were the results? Good
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM River
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM River
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 100 years or More Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? Y / N How often? _____ Last time? _____
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Linda A Geiger Date 5/28/18

130

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-17-0018.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: RICHARD GEIGER

STREET: 154 River St. CITY: Cressona STATE: PA ZIP: 17929

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN (PUBLIC) OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 20 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 1980s Any contamination? Y / (N) What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	(PIPE TO STEAM) RIVER
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	(PIPE TO STEAM) RIVER
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 100 yrs. Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Sewer is piped Directly to River

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ (Piped to River) **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

Confirmed Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

137 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** R8-21-0005.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: William HEydT PHONE NO: 610 223 1446

ADDRESS: 42 W Adamsdale Rd CITY: Sch Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 1/4 Acre What is the best time and day of the week to contact you? Evening / Afternoon
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / (N) If yes, how? _____

   If you have a well: Is it DUG or (DRILLED)? How Deep? 60 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 30 ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 10 Years What were the results? Good
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 30 Years Was it permitted? Y (N) When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) N How often? 2 Years Last time? 2 Years ASO
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? (Y) / N When? 10 Years By permit? (Y) / N

    What part? (TANK) LINE DRAIN FIELD Was it repaired or replaced? (REPAIRED) / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: William HEydT Date 7/29/18

137

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-21-0005.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 10/30/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: WILLIAM HEYDT

STREET: 42 W. Adamsdale Road CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? 60 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 30 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2008 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? .25Ac. No. of dwelling units? 1 (One) or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 30Yrs. Was it permitted? Y / (N) When?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round?

Have you ever had your system pumped out? (Y) / N How often? 2Yrs Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? (Y) / N When? 2008 By permit? (Y) / N

What part? (TANK) LINE DRAIN FIELD Was it repaired or replaced? (REPAIRED) / REPLACED

Comments: Drainfield apparently in front of house is Paved over NO ONE HOME

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** (/) **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 10/30/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

138 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-21-0009.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Donald C Hancock PHONE NO: 570 366-0976

ADDRESS: 35 W. Adamsdale Rd CITY: Schuylkill Haven STATE: PA ZIP: _____

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? .20 What is the best time and day of the week to contact you? After 3pm
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? water softer System

   If you have a well: Is it DUG or (DRILLED?) How Deep? 100 ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 50-60 ft. Is well (UP) / DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? _____ What were the results? Water Softer System
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 10-15 yrs Was it permitted? (Y) / N When? 10-15 yrs
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS	ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	(OTHER:) (specify)

   Due to houses across the street overflow running along my property

   If you noticed any of the above, are they seasonal or (year-round?) _____
10. Have you ever had your system pumped out? (Y) / N How often? every 6 yr Last time? 2012
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

With Advance Notice

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7-27-18

138

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-21-0009.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 10/30/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: DONALD AND PEGGY HANCOCK

STREET: 35 W. Adamsdale Rd. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 60 FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 50-60 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? (Y) / N When? Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? .2 Ac. No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 10 - 15 Yrs. Was it permitted? (Y) / N When? 10-15 Yrs Ago.

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	(WETNESS OR SPONGY AREAS ODORS)	
(WATER PONDING OR SURFACING)	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? Yr. - Round.

Have you ever had your system pumped out? (Y) / N How often? 6yrs Last time? ~2012

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part?

Has the system ever been repaired? Y / (N) When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Owner says homes across the st. contribute to malfunctioning System.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **(Confirmed Malfunction)** X **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 10/30/18

Confirmed Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

139

18-21-0014.000

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Merlin Deonick Sr PHONE NO: 570-366-2850

ADDRESS: 23W. Adamsdale Rd. CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 3 SEASONAL (ALL YEAR)
2. How large is your lot? 36 A 15-0 What is the best time and day of the week to contact you? MON 11AM
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? Salt Pellets

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N
5. How far is the well or spring from the drain field? 5 ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? ? What were the results? IRON
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? (Y) / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? 2 Last time? 1 yr.
11. If it was pumped, was it inspected for cracks or broken baffles? Y (N)
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: [signature] Date 5/12/18

139

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-21-0014.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: MERLIN DRONICK

STREET: 23 W. Adamsdale Rd. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 5 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When?_____ Any contamination? Y / (N) What?: TC FC N other: IRON

How large is your lot? .12 Ac. No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? (Y) / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify) Bare Area in Yard.

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 2yrs. Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y (N) What part?_____

Has the system ever been repaired? Y (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: bare area in center of yard

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **(Suspected Malfunction)** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature:_____ Date_____

141 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-21-0027.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Thomas + Tracy Rayburn PHONE NO: 570 366 7300

ADDRESS: 2 E. Adamsdale Rd. CITY: Sch Hvn STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? .75acre What is the best time and day of the week to contact you? morning
3. Do you have more than one sewage system on your lot? Y / (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? clorine

   If you have a well: Is it DUG or (DRILLED)? How Deep? 520 ft. Cased? (Y) / N 150'
5. How far is the well or spring from the drain field? 75 ft. Is well UP / DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? every mo. What were the results? SD
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH "	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	INGROUND BED ?	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH "	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? ? Was it permitted? Y / N ? When? ?
   unknown, property purchased in 2007
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? —
10. Have you ever had your system pumped out? (Y) N How often? every 6 mo to 12 mo Last time? 10/17
11. If it was pumped, was it inspected for cracks or broken baffles? Y / (N)
12. Has the system ever been repaired? Y / (N) unknown. Purchased in 2007. When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7/31/18

141

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-21-0027.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 10/30/18

Weather (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: THOMAS RAYBURN

STREET: 2 East Adamsdale Rd. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? (C) / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

Restaurant + Residence

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? 520 FEET Is it cased? (Y) / N 150'

How far is the well or spring from the drain field? 75' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? (CL) UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? Monthly Any contamination? (Y) / N What?: TC FC N other: SD?

How large is your lot? .75 Ac. No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
(CESSPOOL)	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 6-12 months Last time? 10/17

If it was pumped, was it inspected for cracks or broken baffles? Y / (N) What part? _____

Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** / **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kpicha Date 10/30/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

144 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-23-0011.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: MALCOLM E. EUBERT, JR PHONE NO: 570 385-3383

ADDRESS: 14 GRACE AVE CITY: SCH. HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? .45 AC What is the best time and day of the week to contact you? DAYTIME
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? (Y) / N If yes, how? UV LIGHT, HYDROGEN PEROXIDE

   If you have a well: Is it DUG or (DRILLED)? How Deep?? ft. Cased? (Y) N
5. How far is the well or spring from the drain field? 60+ ft. Is well (UP) DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2017 What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 50+ Was it permitted? Y / N ? When? _____
9. Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? YEARLY Last time? SEPT 2017
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N ?
12. Has the system ever been repaired? (Y) / N When? ? By permit? Y / N ?

    What part? TANK LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 7/26/17

#144

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: _____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: _____

STREET: 14 Grace CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 60+ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? (Y) / N How? CL (UV DISINFECTION) SOFTENER ION OTHER

Was the water ever tested? (Y) / N When? 2017 Any contamination? Y / N What?: TC FC N other: ___

How large is your lot? 0,45 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 50+ Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

(GREEN LUSH GRASS)	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? wet Seasons

Have you ever had your system pumped out? (Y) / N How often? annually Last time? ~~2015~~ Sept 2017

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? (Y) / N When? ? By permit? Y / N ?

What part? TANK (LINE) (DRAIN FIELD) Was it repaired or replaced? (REPAIRED) / (REPLACED)

Comments: Drainfield worked on

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** ✓ **Potential Malfunction** __ Green Grass Soft Spots

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

147 NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-23-0128.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: PATRICIA DONETTI PHONE NO: 570-385-4706

ADDRESS: 19 JANE AVE CITY: SCH HAVEN STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 1 SEASONAL ALL YEAR
2. How large is your lot? 120 x 100 What is the best time and day of the week to contact you? ANY DAY
3. Do you have more than one sewage system on your lot? Y / N If yes, explain: _____
4. What kind of water system do you have? WELL SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? NOT SURE What were the results? high in IRON
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 50 YRS Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? NONE
10. Have you ever had your system pumped out? Y / N How often? 5 yrs. Last time? 2015
11. If it was pumped, was it inspected for cracks or broken baffles? Y / N
12. Has the system ever been repaired? Y / N When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Patricia Donetti Date 5/24/2018

147

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-23-0108.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK. Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: PATRICIA DONETTI

STREET: 19 Jane Ave. CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 1

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? (Y) / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1 Ac. No. of dwelling units? 1 (One) or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 50 Yrs. Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? (Y) / N How often? 5 yrs. Last time? 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** X **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kypicki Date 6/25/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

151

NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY 18-04-0001.002

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Stephen + Ann Marie Buzalko PHONE NO: 570 294 2059

ADDRESS: 100 Gordon Magee Dr CITY: Pottsville STATE: PA ZIP: 17901

1. How many people live in your house (if business, how many employees)? 4 SEASONAL (ALL YEAR)
2. How large is your lot? 5 ACRES What is the best time and day of the week to contact you? Before 6 PM
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? (WELL) SPRING PUBLIC OTHER

   Do you treat your water? Y / N If yes, how? FILTER

   If you have a well: Is it DUG or (DRILLED)? How Deep? ft. Cased? (Y) / N 160'
5. How far is the well or spring from the drain field? 110'+ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? (Y) / N When? 2016 What were the results? SAFE FOR DRINKING
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 29 yr Was it permitted? (Y) N When? 1989
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	(WETNESS OR SPONGY AREAS ODORS) CORRECTED APR 2018	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify) CORRECTED 2018

   If you noticed any of the above, are they seasonal or year-round? SEASONAL RAINY SEASON
10. Have you ever had your system pumped out? (Y) / N How often? EVERY 3 YRS Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y / (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: HAD PUMP CHANGED 2012, NEW RISER ON D BOX + DIALS ON D BOX TRENCH 2018

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? (Y) / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: _____ Date 5/24/18

151

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-04-0001.002

Municipality: North Manheim Township County: Schuylkill Survey Tech: ELK Date: 6/25/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: STEPHEN + ANNMARIE BUZALKO

STREET: 6660 Gordon Nagle Trail CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? 160' FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 110' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION (OTHER) FILTER

Was the water ever tested? (Y) / N When? 2016 Any contamination? Y / (N) What?: TC FC N other:

How large is your lot? 5 Ac. No. of dwelling units? 1 (One) or more sewage systems?

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 29 Yr. Was it permitted? (Y) / N When? 1989

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	(WETNESS OR SPONGY AREAS ODORS)	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? Repaired

Have you ever had your system pumped out? (Y) / N How often? 3 Yrs. Last time? 2012

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? ~~D-Box~~

Has the system ever been repaired? (Y) / N When? By permit? Y / N

What part? TANK (LINE) (DRAIN FIELD) Was it repaired or replaced? (REPAIRED) / REPLACED

Comments: D-Box re-leveled / Trench repaired 2018.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **(No Malfunction)** **Confirmed Malfunction** **Suspected Malfunction** **Potential Malfunction**

At time of inspection

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Ed Kopicki Date 6/25/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

152 **NORTH MANHEIM TOWNSHIP SEWAGE NEEDS MAIL SURVEY** 18-9-0056.000

North Manheim Township is conducting a survey to determine if any sewage problems exist in the Township. The survey results will be used to determine if sewage problems exist, and the best and most economical way of correcting them. Please complete the form to the best of your ability and return it by 05/31/18 in the self-addressed stamped envelope. If you have any questions please contact Scot McCaffrey at (610) 916-8500.

(CIRCLE OR FILL IN AS APPROPRIATE; ADD COMMENTS AS NEEDED)

NAME: Lee L. Llewellyn PHONE NO: 570-385-5884

ADDRESS: 62 Fidler Ave. CITY: Schuylkill Haven STATE: PA ZIP: 17972

1. How many people live in your house (if business, how many employees)? 2 SEASONAL (ALL YEAR)
2. How large is your lot? 3/4 acre What is the best time and day of the week to contact you? _____
3. Do you have more than one sewage system on your lot? Y (N) If yes, explain: _____
4. What kind of water system do you have? WELL SPRING (PUBLIC) OTHER

   Do you treat your water? Y (N) If yes, how? _____

   If you have a well: Is it DUG or DRILLED? How Deep? ft. Cased? Y / N
5. How far is the well or spring from the drain field? _____ ft. Is well UP/DOWN SLOPE?

   Have you ever had your water tested? Y / N When? _____ What were the results? _____
6. What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

7. Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	(PIPE TO DITCH)
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

8. How old is your system? 2005 ? Was in when we purchased house. Was it permitted? Y / N When? _____
9. Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

   If you noticed any of the above, are they seasonal or year-round? _____
10. Have you ever had your system pumped out? (Y) / N How often? every 2 yrs. Last time? 2016
11. If it was pumped, was it inspected for cracks or broken baffles? (Y) / N
12. Has the system ever been repaired? Y (N) When? _____ By permit? Y / N

    What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED
13. Comments: _____

DO WE HAVE YOUR PERMISSION TO CONFIRM THE INFORMATION ON THIS FORM BY LOOKING AROUND? Y / N

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information above is true, correct and complete.

Signature: Lee L. Llewellyn Date 8/22/18

RECEIVED
AUG 27 2018
Systems Design Engineering

152

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-19-0056.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: Scot M Date: 9/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Lee L. Llewellyn

STREET: 62 Fidler Ave CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 3/4 acre No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 2005 Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? every 3 yr Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 9/12/18

#153

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0017.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 9/12/18

Weather: SUNNY OVERCAST (RAIN) SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Bensinger, Michelle L

STREET: 146 W. 2nd Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 100+ FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
~~CESSPOOL~~	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(~~ELEVATED SAND MOUND~~)	STORM SEWER	OTHER: (specify)

How old is your system? < 5 yrs Was it permitted? (Y) / N When?_____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Replaced System

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

154

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-16-0025.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 9/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Wunder Matthew

STREET: ~~Next to only Gerry~~ 184 W. 2nd Mtn Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Buried Is it cased? Y / N ?

How far is the well or spring from the drain field? <100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? .29 ac. No. of dwelling units? 1 One or more sewage systems? NO

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2017 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: New System ~~Crack~~ date. BTG at Crack to tank

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

156

Tax Parcel #: 18-16-0097.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 9/12/18

Weather: SUNNY OVERCAST (RAIN) SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Hritzko, Joseph

STREET: 7 Killian Lane CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: ____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? ____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 1 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 8 yr Was it permitted? (Y) / N When? 2010

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? ____

Have you ever had your system pumped out? (Y) / N How often? ____ Last time? 2010

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? ____

Has the system ever been repaired? (Y) / N When? ____ By permit? Y / N

What part? (TANK) LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** (✓) **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: [signature] Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

[signature]

151

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-007-0050.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 9/12/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Steely, Brandon

STREET: 21 N. Greenview Rd CITY: Sch Haven STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 0.5 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1 year Was it permitted? Y / N When? 2017

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/12/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

159

Tax Parcel #: 18-05-0092.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/10/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Krouse-Pauley

Address wrong* STREET: 2591 Panther Valley 21039 CITY: Cressona STATE: PA ZIP: 17929

New System recently next to Sparrow Ln

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 5

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 0.9 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 8 years Was it permitted? Y / N When? 2009

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often?____ Last time?____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?____

Has the system ever been repaired? Y / N When? 2010 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: ____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Scot McCaffrey Date 9/12/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

Scot McCaffrey

DOOR TO DOOR NEEDS SURVEY

160

Tax Parcel #: 18-05-0090.0000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/10/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Noll, Tyler

STREET: 2591 Panther Valley CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 8.3 No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 5 years Was it permitted? Y / N When? 2013

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? Last time?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / N When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Date 9/12/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

161

Tax Parcel #: 18-21-0018.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Curtis Hoffman This property and the one next to it

STREET: 15? W Adamsdale CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? ±50 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? yes

Have you ever had your system pumped out? Y / N How often? ? Last time? ?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Rear Property Saturated

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** X **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

Confirmed Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

162

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-08-0081.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: S.Mc. Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Dale Shive

STREET: 33 Guldin St CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? 50+ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 1ac No. of dwelling units? 1 One or more sewage systems? one

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When?

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? 4 Last time?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / N When? 6/18 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Replacement Septic Tank

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Date 8/28/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

163

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0101.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: S Mc Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Joe Peters

STREET: 501 Route 61 S. CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 40pd

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? N/A FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 8.2 ac No. of dwelling units? ____ One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1 year Was it permitted? Y / N When? 10/25/16

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME

OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? Brand new Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: System newly installed August, 2017

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** X **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

164

Tax Parcel #: 18-06-0056.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: S. Mc. Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Charles Premich

STREET: 93 N. Lake CITY: Pottsville STATE: PA ZIP: 17970

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? Any contamination? Y / N What?: TC FC N other:

How large is your lot? 6.94 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED At-Grade beds	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? <1 year Was it permitted? Y / N When? 3/31/16

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? New System Last time?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?

Has the system ever been repaired? Y / N When? By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** X **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

165

Tax Parcel #: 18-06-0173.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: S. Mc Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Michael Haesler

STREET: 111 Briar Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? +100 FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.8 ac No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1 year Was it permitted? Y / N When? 11/22/17

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** X **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

166

Tax Parcel #: 18-06-0171.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 8/28/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Lurwick, Michael

STREET: 101 Briar Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? 100+ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? 2017 Any contamination? Y / N What?: TC FC N other:

How large is your lot? 2 Ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	~~ELEVATED SAND MOUND~~	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	~~ELEVATED SAND MOUND~~	STORM SEWER	OTHER: (specify)

How old is your system? 1 year Was it permitted? Y / N When? 2017

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** / **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 8/28/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

(167)

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0085.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/10/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 (70-85) ABOVE 85

NAME: Schneering Martena

STREET: 201 Antique Ln CITY: Orwigsburg STATE: PA ZIP: 17961

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y (N) How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N UNK When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 52.2ac No. of dwelling units? 1 One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? ±20 y Was it permitted? (Y) / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / (N) When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** X **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/10/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

168

Esmt 3 | Mt. View
Adamsdale

Tax Parcel #: 18-07-0073.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/10/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: ~~Adamsdale - Mt View~~ Weidman, Tammy L.

STREET: 89 E. Adamsdale Rd CITY: Orwigsburg STATE: PA ZIP: 17961

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	NO
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? 2010

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/10/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

169

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0039.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/10/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Joshua Properties LLC

STREET: 1019 W Market St CITY: Orwigsburg STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +/-100 FEET. Is the well: UPHILL / DOWNHILL Flat

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? 1 One or more sewage systems? NO

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? new Was it permitted? Y / N When? 2017

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: new System to replace old Cesspool for house sale

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/10/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

170

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: K-07-0065.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Don Thompson

STREET: E. Adamsdale Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 16 yrs Was it permitted? Y / N When? 2001

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? ?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

171

Tax Parcel #:_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Merlin Kramer

STREET: 15 S Greenview CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? O / (R) No. of Employees/Residents: See permit

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 2x Last time? 2017

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? (Y) / N When? 2017 By permit? Y / N

What part? (TANK) LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Small/Limited repl area

Observation: **No Malfunction** __ **(Confirmed Malfunction)** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

172

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: _____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Herrod Stokes

STREET: 12 Crestview CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 2012 By permit? (Y) / N

What part? (TANK) LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Pre reg System

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** /

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

.173

Tax Parcel #: _____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Charles Chillis

STREET: 32 Crestview CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2014 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Prereg System

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** X

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

7:14

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0123.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Cori Moyer

STREET: 10 Crestview CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When? 2012 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Pre-Reg System ~~Has a Complaint~~

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

175

Tax Parcel #: 18-06-0119.005

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Nancy Hosler

STREET: 43 Crestview CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL See Permit File

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2006 By permit? (Y) / N

What part? (TANK) LINE (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

176

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #:_____ Survey Tech: MR

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

Was a Mail Survey form completed? Y / N If yes, attach.

NAME:_____ PHONE NO:_____

ADDRESS: 177 W Adamsdale Rd CITY:_____ STATE: PA ZIP:_____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:_____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 1 year Was it permitted? Y / N When? 2017

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☒ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

177

Tax Parcel #: _____

Municipality: North Manheim Township County: Schuylkill Survey Tech: CMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: _____

STREET: 27 Meadow CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

176 **Tax Parcel #:** _____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: _____

STREET: 57 E. Adamsdale Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? 1 One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? ____ Last time? ?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

179

Tax Parcel #:_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME:_____

STREET: 89 E. Adamsdale Rd CITY: _____ STATE: PA ZIP:_____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? ? FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N ? When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? ? Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature:_____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

183 **Tax Parcel #:**_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME:_____

STREET: 183 E. Adamsdale Rd CITY:_____ STATE: PA ZIP:_____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): ~~DUG~~ / (DRILLED) How deep? ? FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot?_____No. of dwelling units? ____ One or more sewage systems? _____

What kind ~~of sewage~~ system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	~~INGROUND BED~~	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where ~~does your laundry~~ and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	~~INGROUND BED~~	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system?_____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments:_____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature:_____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

181

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0053.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: C.J. Tires / Seitzinger Group

STREET: S. Greenview + Rt 61 S CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: ± 10

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ±100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? ?

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Limited rep area

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

182

Tax Parcel #: 18-07-0077.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: See Permit for info was under "Brown"

STREET: 560 Rt. 61 N. CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2011 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

183 **Tax Parcel #:**_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME:_____

STREET: 50 Grace Ave CITY: _____ STATE: PA ZIP:_____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

184

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #:_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME:_____

STREET: 31 Grace Ave CITY:_____ STATE: PA ZIP:_____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N small lot pre reg system

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature:_____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

185

Tax Parcel #:_____

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME:_____

STREET: 27 Grace Ave CITY:_____ STATE: PA ZIP:_____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:_____

How large is your lot? _____ No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? ? Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When? 2012 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N Pre reg System

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature:_____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

186 **Tax Parcel #:** 18-06-0105.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Renningers

STREET: Bullwell Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? 400' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

187

Tax Parcel #: 18-23-00.2-000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Bayview Loan Servicing

STREET: 43 Bultwell Rd CITY: Sch Haven STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: Empty at time of insp

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ↓50' to tank FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? as necessary Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? N/A

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: permitted in

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** √ **Potential Malfunction** __ Holding tank

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Suspected Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

188

Tax Parcel #: 18-06.0124.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/16/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Tara Bell

STREET: 8 Crestview CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? wet season

Have you ever had your system pumped out? Y / N How often? ~~2015~~ Last time? 2015

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Clogged, causing backup in house. Had drains/pipes cleaned

Do I have your permission to confirm this information by looking around? Y / N

Pre-Reg System had surface discharge in 2015

Observation: **No Malfunction** __ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** ✓

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/16/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

189 **Tax Parcel #:** 18-06-0167.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: SM Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Wayne Huntzinger

STREET: 25 Memorial Dr CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When? 2006 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

190

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0086.009

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: David Koppenhaver

STREET: 0 Sunnyside Ln. CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2-4

check permit

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 4 ac No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** V **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

191

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0076.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: John Fehr

STREET: 318 Manheim Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

192 **Tax Parcel #:** 18-06 00071.005

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Jaime Clemas

STREET: 73 W 2nd Mt Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 10.25 ac No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: New System w/ permit 2006

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

193 **Tax Parcel #:** 18-06-0073.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: North Manheim Twp office

STREET: 303 Manheim Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? (C) / R Owner/Renter? (O) / R No. of Employees/Residents: 2-3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION (SOFTENER) ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 4.2 ac No. of dwelling units? 2 One or more sewage systems? yes (See Second Page)

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 3yr Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? (Y) / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: New System in 2013

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** / **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true. correct and complete.

Signature: Scot McCaffrey Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Scot McCaffrey

194

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0073.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: N. Manheim Garage

STREET: 303 Manheim Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? (C) / R Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 4.2ac No. of dwelling units? 2 One or more sewage systems? 2 (see previous page)

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? (Y) / N How often? 3yr. Last time? 2016

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: System can be combined into new system if necessary.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

195

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0041.008

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: (SUNNY) OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Janet Smith

STREET: 2 Hemlock Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 0.9 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 2 years Was it permitted? (Y) / N When? 2016

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? N/A

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / (N) When? _____ By permit? (Y) / N Newly installed w/permit

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: New System in 2016

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

196

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0041.010

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Edward Curnow

STREET: 16 Hemlock CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 1.3 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 5 years Was it permitted? Y / N When? 2013

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Repl. System in 2013

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

197

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0041.012

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

NAME: Kevin Fanelli

STREET: 1 Field of Dreams Dr. CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 27.4 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? ~~new~~ 1 year Was it permitted? (Y) / N When? 2017

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? N

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2017 By permit? (Y) / N

What part? (TANK) (LINE) (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: Replaced Holding tank w/ Elevated Sandmound 2017

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** V **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Signature: _____ Date 10/23/18

198

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0026.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: 2nd Mtn Rod + Gun Club

STREET: ~~2nd Mtn~~ 156 N Greenwood Rd CITY: Schuylkill Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 3.6 ac No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY) Grease interceptor for kitchen

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 8 years Was it permitted? Y / N When? 2010

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2010 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Replaced System in 2010

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** 1 **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

199

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0015.003

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Arthur Rauchbush

STREET: 440 E. Second Mtn Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: ____

How large is your lot? 14,02 No. of dwelling units? ____ One or more sewage systems? ____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 14 years Was it permitted? Y / N When? 2004

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true. correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

200

Tax Parcel #: 18-03-0018.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Randy Lesher

STREET: 559 E. 2nd Mtn Rd CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 7.8 ac No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? 2008 By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: Scot McCaffrey Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

Scot McCaffrey

DOOR TO DOOR NEEDS SURVEY

201

Tax Parcel #: 18-06-0041.007

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Jacob Webb

STREET: 2 Hemlock CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 1.6 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

202

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-06-0036.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Gilbert Shuey

STREET: 80 E. 2nd Mtn Rd CITY: pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1.73ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

Potential Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

DOOR TO DOOR NEEDS SURVEY

203

Tax Parcel #: 18-06-2009.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: ~~Jon~~ Aaron Clauser

STREET: 312 Deerview CITY: Sch Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 6.3 No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Property currently for Sale.

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

204

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-02-0005.000

Municipality: North Manheim Township County: Schuylkill Survey Tech: S/Mc Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Gwen Gentile + Donald Helbig

STREET: 163 E. 2nd Mtn Rd CITY: Pottsville STATE: PA ZIP: 17901

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 3 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true. correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

205

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-02-0005.002

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Kline, Wm. R + Ex, Charles H.

STREET: 132 Deer Trail Dr. CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?_____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 1ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

SEPTIC TANK	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? ?

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

206

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-02-0005.005 Survey Tech: SMc

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

Was a Mail Survey form completed? Y / (N) If yes, attach.

NAME: Robert Stepenaskie PHONE NO: _____

ADDRESS: 126 Deer Trail Dr. CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 3

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 1ac. No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 5 years Was it permitted? (Y) / N When? 2013

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 2013 By permit? (Y) / N

What part? (TANK) (LINE) (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: Replaced System for house sale

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

207

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-03-00170.00 Survey Tech: SMC

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 (50-70) 70-85 ABOVE 85

Was a Mail Survey form completed? Y / (N) If yes, attach.

NAME: Steven Leymeister PHONE NO: _____

ADDRESS: 19 Ranch Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? 3.3ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? (Y) / N When? ?

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

208

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-07-0005.00

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMC Date: 10/23/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 32-50 50-70 70-85 ABOVE 85

NAME: Robert Cauley

STREET: 540 E. Second Mtn Rd CITY: Sch. Haven STATE: PA ZIP: 17972

Commercial/Residential? C / R Owner/Renter? O / R No. of Employees/Residents: 4

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? ±100' FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When?____ Any contamination? Y / N What?: TC FC N other:____

How large is your lot? 4.85 ac No. of dwelling units? 1 One or more sewage systems? 1

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When?_____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time?_____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part?_____

Has the system ever been repaired? Y / N When?_____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

209

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-05-0113.001 Survey Tech: SMc

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

Was a Mail Survey form completed? Y (N) If yes, attach.

NAME: Olga Spontak PHONE NO: _____

ADDRESS: 134 Old Mill Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	(INGROUND TRENCH)	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? N/A

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

210

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-05-0112.000 Survey Tech: _____

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

Was a Mail Survey form completed? Y / (N) If yes, attach.

NAME: Michael Thompson PHONE NO: _____

ADDRESS: 0 Old Mill Rd CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY) See permit File

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? 2 years Was it permitted? (Y) / N When? 2016

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/23/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

211

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 17-05-0122,000 Survey Tech: SMc

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85 10/26/18

Was a Mail Survey form completed? Y / (N) If yes, attach.

NAME: _____ PHONE NO: _____

ADDRESS: 52 Apple Lane CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / DRILLED How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

212

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY 10/26/18

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-05-0122.007 Survey Tech: SMC

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

Was a Mail Survey form completed? Y (N) If yes, attach.

NAME: _____ PHONE NO: _____

ADDRESS: 57 Apple Ln. CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C (R) Owner/Renter? (O) R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you ever noticed any of the following near your septic system? NO

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
WATER PONDING OR SURFACING	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME

OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Observation: ☑ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☐ **Confirmed Malfunction**

he undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

213

NORTH MANHEIM TOWNSHIP DOOR-TO-DOOR SEWAGE NEEDS SURVEY

10/26/18

Municipality: North Manheim Township County: Schuylkill Tax Parcel #: 18-10-0105.007 Survey Tech: SMc

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

Was a Mail Survey form completed? Y / (N) If yes, attach.

NAME: Jerry B. Hile PHONE NO: _____

ADDRESS: 1042 Woodland Dr. CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: 2

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? Y / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? _____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you ever noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS
(WATER PONDING OR SURFACING)	SYSTEM OVERFLOW
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: Has permit for ~~new~~ replacement system / New System installed 2019

Observation: ☐ **No Malfunction** ☐ **Potential Malfunction** ☐ **Suspected Malfunction** ☑ **Confirmed Malfunction**

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 9/26/19

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

214

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-05-0110.001

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/26/18

Weather: SUNNY OVERCAST RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: Keith Strouse

STREET: 43 Mengle St CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? (C) / R Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100 FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

~~SEPTIC TANK~~	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	~~INGROUND TRENCH~~	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 2003 By permit? (Y) / N

What part? (TANK) (LINE) (DRAIN FIELD) Was it repaired or replaced? REPAIRED (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

No Malfunction, Verified 4/25/23
Scot McCaffrey, SEO #3421

215

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0105.012

Municipality: North Manheim Township County: Schuylkill Survey Tech: MC Date: 10/26/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: Benjamin Sadusky

STREET: 1030 Woodland Dr CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? _____ FEET. Is the well: UPHILL / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? (Y) / N When? 2008 By permit? (Y) / N

What part? (TANK) LINE DRAIN FIELD Was it repaired or replaced? REPAIRED (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

Potential Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

216

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-10-0105.010

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/26/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: Michael Naydock

STREET: 1009 Woodland Dr. CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? (WELL) SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? 475 FEET. Is the well: (UPHILL) / DOWNHILL

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	(INGROUND BED)	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	ELEVATED SAND MOUND	STORM SEWER	OTHER: (specify)

How old is your system? _____ Was it permitted? Y / N When? _____

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? _____

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? TANK LINE DRAIN FIELD Was it repaired or replaced? REPAIRED / REPLACED

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** ✓ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

217

DOOR TO DOOR NEEDS SURVEY

Tax Parcel #: 18-01-003.004

Municipality: North Manheim Township County: Schuylkill Survey Tech: SMc Date: 10/26/18

Weather: SUNNY (OVERCAST) RAIN SNOW Temperature: BELOW 32 (32-50) 50-70 70-85 ABOVE 85

NAME: Dirk Berger

STREET: 139 Glenworth CITY: _____ STATE: PA ZIP: _____

Commercial/Residential? C / (R) Owner/Renter? (O) / R No. of Employees/Residents: _____

What kind of water system do you have (circle one)? WELL SPRING CISTERN PUBLIC OTHER

If you have a well (circle one): DUG / (DRILLED) How deep? _____ FEET Is it cased? (Y) / N

How far is the well or spring from the drain field? +100' FEET. Is the well: UPHILL / (DOWNHILL)

Do you treat your water? Y / N How? CL UV DISINFECTION SOFTENER ION OTHER

Was the water ever tested? Y / N When? _____ Any contamination? Y / N What?: TC FC N other: _____

How large is your lot? _____ No. of dwelling units? ____ One or more sewage systems? _____

What kind of sewage system do you have? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

Where does your laundry and/or sink water go? (CIRCLE ALL THAT APPLY)

(SEPTIC TANK)	PRIVY	SEEPAGE PIT	PIPE TO DITCH
CESSPOOL	INGROUND BED	BORE HOLE	PIPE TO STEAM
OLD WELL	INGROUND TRENCH	COMMUNITY SEWER	PIPE TO SURFACE
HOLDING TANK	(ELEVATED SAND MOUND)	STORM SEWER	OTHER: (specify)

How old is your system? 4 years Was it permitted? (Y) / N When? 2014

Have you every noticed any of the following near your septic system?

GREEN LUSH GRASS	WETNESS OR SPONGY AREAS ODORS	
WATER PONDING OR SURFACING	SYSTEM OVERFLOW	
SLUGGISH DRAINS	WASTEWATER BACKING INTO THE HOME	OTHER: (specify)

If you noticed any of the above, are they seasonal or year-round? NO

Have you ever had your system pumped out? Y / N How often? _____ Last time? _____

If it was pumped, was it inspected for cracks or broken baffles? Y / N What part? _____

Has the system ever been repaired? Y / N When? _____ By permit? Y / N

What part? (TANK) (LINE) (DRAIN FIELD) Was it repaired or replaced? REPAIRED / (REPLACED)

Comments: _____

Do I have your permission to confirm this information by looking around? Y / N

Observation: **No Malfunction** √ **Confirmed Malfunction** __ **Suspected Malfunction** __ **Potential Malfunction** __

The undersigned hereby represents that, to the best of his/ her knowledge and belief, all information listed above is true, correct and complete.

Signature: _____ Date 10/26/18

No Malfunction, Verified 10/25/23
Scot McCaffrey, SEO #3421

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix G ■ Proposed Sewage Management Ordinance

\

NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY,
PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF NORTH MANHEIM TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA, PROVIDING FOR THE MANAGEMENT OF ON-LOT SEWAGE DISPOSAL FACILITIES LOCATED WITHIN THE TOWNSHIP OP NORTH MANHEIM, SCHUYLKILL COUNTY, PENNSYLVANIA

BE IT ENACTED AND ORDAINED, and it is hereby enacted and ordained by the Board of Supervisors of North Manheim Township, Schuylkill County, Pennsylvania, as follows:

Section 1. Title; Introduction; Purpose.

1. This Ordinance shall be known as the North Manheim Township On-Lot Sewage Disposal System Management Ordinance.
2. As required by the Pennsylvania Second Class Township Code, as amended, (53 P.S. 65101), the Pennsylvania Clean Streams Law, amended, (35 P.S. 691.1 et seq.), and the Pennsylvania Sewage Facilities Act, as amended (35 P.S. 750.1, et seq., also known as Act 537), municipalities leave the authority and the obligation to provide for adequate sewage treatment facilities and for the protection of public health by preventing the discharge of untreated or inadequately treated sewage. The Official Sewage Facilities Plan for North Manheim Township requires the Township to enact an Ordinance to formulate and implement a sewage management program to

effectively prevent and abate water pollution and hazards to the public health caused by improper treatment and disposal of sewage.

3. The purpose of this Ordinance is to provide for the regulations, inspection, maintenance, and rehabilitation of on-lot sewage disposal systems within North Manheim Township; to further permit the Township to intervene in situations which are public nuisances or hazards to the public health; and to establish penalties and appeal procedures necessary for the proper administration of a sewage management program.

Section 2. Terms and Definitions.

1. General Terms. In the interpretation of this Ordinance, the singular shall include the plural, and the masculine shall) include the feminine and the neuter. When terms, phrases, or words herein are not defined, they shall have the meaning prescribed by the Township Zoning Ordinance, the Township Subdivision and Land Development Ordinance, any other Township ordinances or resolutions, or, in the absence of such, their ordinarily accepted meaning or such as the context may imply.
2. Specific Terms. For the purpose of this Ordinance, the terms used shall be construed to have the following meanings:

ACT - The Pennsylvania Sewage Facilities Act, Act of January 24, 1996, P.L. (1965) 1535, No. 537, as amended, 35 P.S. Section 750.1 et seq.

AUTHORIZED AGENT — A licensed or certified sewage enforcement officer, professional engineer or sanitarian, plumbing Inspector, soils scientist, or any other qualified or licensed person who Is delegated to function within the specified limits as the agent of the North Manheim Township to carry out the provisions of this Ordinance.

BOARD — The Board of Supervisors of North Manheim Township, Schuylkill County, Pennsylvania.

COMMUNITY SEWAGE SYSTEM — any system, whether publicly or privately owned, for the collection of sewage from two or more lots or uses, or two or more equivalent dwelling units, and the treatment and/or disposal of the sewage on one or more of the lots or at any other site and which shall comply with all applicable regulations to the DEP.

DEP – The Department of Environmental Protection of the Commonwealth of Pennsylvania or any delegated or successor agency.

INDIVIDUAL SEWAGE SYSTEM — Any system of piping, tanks, or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or any waters of the Commonwealth of Pennsylvania or by means of conveyance to another site for final disposal.

MALFUNCTION — The condition which occurs when an on-lot sewage disposal system causes pollution to the ground or surface waters, contamination of private or public drinking water supplies, nuisance problems, or hazards to public health. Indications of malfunctioning systems include, but are not limited to, foul odors, lush grass growing over the system, backup of wastewater in the attached buildings, soggy ground over the system, surfacing sewage effluent flowing over the ground and occurring at any time of the year.

OFFICIAL SEWAGE FACILITIES PLAN — A comprehensive plan for the provision of adequate sewage disposal systems adopted by the Township and approved by the DEP in accordance with the Act and with applicable DEP regulations.

ON-LOT SEWAGE DISPOSAL SYSTEM — Any system for disposal of domestic sewage involving pretreatment and subsequent disposal of the clarified sewage into a subsurface soil absorption area or retaining tank.

OWNER — Any person, corporation, partnership, etc. holding deed/title to lands within North Manheim Township.

PERSON – Any individual, association, partnership, public or private corporation whether for profit or not-for-profit, trust, estate, or other legally recognized entity. Whenever the term “person” is used in connection with any clause providing for the imposition of a fine or penalty or the ordering of action to comply with the terms of this Ordinance, the term “person” shall include the members of an association, partnership, or firm and the officers of any public or private corporation, whether for profit or not-for-profit.

PUMPER/HAULER — Any person, company, partnership, or corporation, approved and licensed by the Township, which engages in cleaning community or individual sewage systems and transporting the septage cleaned from these systems.

REHABILITATION — Work done to modify, alter, repair, enlarge, or replace an existing on-lot sewage disposal system,

REPLACEMENT AREA — An area designated as the future location of an individual on-lot sewage system that shall be installed should the initial individual on-lot system installed or to be installed fail or otherwise become inoperable and which shall meet all the regulations of the DEP and all applicable Township ordinances for an individual on-lot sewage system, and shall be protected from encroachment by an easement recorded in the Schuylkill County Recorder of Deeds (this easement requirement may be satisfied by the recording of the Final Plan of a subdivision or land development plan upon which the easement appears).

SEPTAGE — The residual scum and sludge pumped from septic systems.

SEWAGE – Any substance that contains any of the waste products or excrements or other discharge from the bodies of human beings or any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life or to the use of water for domestic water supply or for recreations.

SEWAGE ENFORCEMENT OFFICER (hereinafter called SEO) – A person appointed by the Board to administer various provisions of this Ordinance and authorized by the DEP in accordance with Chapter 71, Administration of Sewage Facilities Program of Title 25, Rules and Regulations, Department of Environmental Protection, of the Pennsylvania Code. Such person Is authorized to conduct investigations and inspections, review permit applications, issue or deny permits, and do all other activities as they may be provided for such person in the Act, the rules and regulations promulgated thereunder, and this or any other Ordinance adopted by the Board.

SEWAGE MANAGEMENT PROGRAM – A comprehensive set of legal and Administrative requirements encompassing the requirements of this Ordinance, the Act, The Clean Streams Law, the regulations promulgated thereunder and such other requirements adopted by the Board to effectively enforce and administer this Ordinance.

TOWNSHIP — North Manheim Township, Schuylkill County, Pennsylvania.
All other definitions of words and terms used in this Ordinance shall have the same meaning as set forth in the Act and the Regulations promulgated thereunder, currently founding Chapter 73, Standards for Sewage Disposal Facilities of Title 25, Rules and Regulations, Department of Environmental Protection, of the Pennsylvania Code.

Section 3. Applicability. From the effective date of this Ordinance, its provisions shall apply to all persons owning or residing on any property serviced by an on-lot sewage disposal system and to all persons installing or rehabilitating on-lot sewage disposal systems. Such persons shall have the obligation to comply with all applicable provisions herein.

Section 4. Sewage Permit Requirements.

1. No person shall request bid proposals for construction or alteration of an individual sewage system or community sewage system, install or construct an individual or community sewage system, or occupy any

building or structure for which an individual or community sewage system is to be installed, without first obtaining a permit indicating that the site and the plans and specifications of such system are in compliance with the provisions of the Act, and the standards adopted pursuant thereto.

2. No community sewage system shall be approved for installation or operation until and unless the owner enters into an agreement with the Township to be recorded with the Recorder of Deeds, specifying the duties of the owner, its successors and assigns, for the operation, maintenance and repair of said system, and posts with the Township financial security in the form of a bond, cash, or other financial instrument, equal to two and one-half (2½) times the cost of installation of the system. The financial security shall be in the name of Township as payee, except that if the community sewage system is to be owned and operated by a homeowners' association, then, in that event, the financial security shall be in the joint name of that homeowners' association and the Township. The financial instrument shall provide for the use of the annual income from the instrument, if any, to cover the costs of operation and inspection of the community sewage system if those costs are not paid directly by the owner or homeowners' association, If no annual income is derived, or if the annual income so derived is insufficient to cover the costs of operation and inspection of the system, the owner or homeowners' association shall provide the amount necessary to recover the costs of operation and inspection. In the event that the Board, or the Board's authorized agent, determines that there has been a malfunction of the system, and the owner or homeowners' association fails, after notice, to repair the malfunction, the principal of the financial security may be employed to fund the correction of the malfunctions. Payment will be made from the principal to the Township upon receipt of notification from the Township of the malfunction and delivery of a contract between the Township and the contractor for the repair of the malfunction. No such community sewage system shall be approved unless the owner evidences to the Township a legal contract

employing a qualified sewage plant operator, for regular maintenance and operation of the system, with the operator's annual fees being paid by the owner or homeowners' association and in default thereof, from the aforementioned financial security bond. Where the system is to be owned by a homeowners' association which has legal responsibility for the operation and maintenance of the system, the contract with the plant operator may be on an annual basis. Otherwise, the contract for the operation and maintenance shall cover a period representative of the anticipated life of the system.

3. No system or structure designed to provide individual or community sewage disposal shall be covered from view until approval to cover the same has been given by the Township SEO. If, after written notice has been reviewed by the SEO, seventy-two (72) hours, excepting weekends and holidays, have elapsed without inspection by the SEO, then the applicant may cover said system or structure, unless permission to do so has been specifically refused by the SEO.

4. Applicants for sewage permits shall be required to notify the Township's SEO of the schedule for construction of the permitted on-lot sewage disposal system, so that inspection(s) in addition to the final inspection required by Act 537 may be scheduled and performed by the Township's SEO at the cost of the applicant(s).

5. No building or occupancy permit shall be issued by the Township for a new building which will contain sewage generating facilities until a valid sewage permit has been obtained from the Township's SEO or from a Municipal Authority or other public entity if the building is serviced by public sewage.

6. No building or occupancy permit shall be issued and no work shall begin on any alteration or conversion of an existing structure which is served by an on-lot sewage disposal system if said alteration or conversion will result in the increase or potential increase in sewage flows from the structure, until the Township and the structure's owner receive from the Township's SEO either a permit for alteration or a replacement of the existing sewage disposal system or written notification that such a permit will not be required. In accordance with

the regulations contained in Chapter 73, Section 73-1, et seq., Title 25 of the Pennsylvania Code, the SEO shall determine whether the proposed alterations of the structure will result in increased sewage flows if on-site sewage disposal is being used.

7. Sewage permits for on-lot sewage disposal may be issued only by an SEO employed by the Township for that express purpose. The DEP shall be notified during January of each year after the effective date of this Ordinance by the Township as to the Identity (by name, address, and SEO Certification Number) of its currently-employed SEO.

Section 5. Inspections.

1. All on-lot sewage disposal systems shall be inspected every three (3) years in accordance with a schedule and regions to be established by the Township or at any other reasonable time as of the effective date of this Ordinance.
2. Persons conducting inspections of existing on-lot sewage systems shall be a certified sewage enforcement officer for the Commonwealth of Pennsylvania or a licensed and qualified installer of on-lot sewage disposal systems. Inspectors and Installers shall be registered with the Township so that they will be able to file notices of Certification Inspection Reports with the Township. Results of the inspection shall be submitted to the Township within thirty (30) days of completion.
3. The on-lot sewage disposal inspections may include a physical tour of the property, the taking of samples from surface water, wells, other ground water sources, the sampling of the contents of the sewage disposal system itself and/or the introduction of a traceable substance into the interior plumbing of the structure served to ascertain the path and ultimate destination of wastewater generated in the structure.
4. The Township's SEO shall have the right to enter upon land for the purposes of inspections and actively participate in the inspections described in this Section. In submitting an application to the Township for a permit required herein, Applicants shall affirm their

consent to the Township SEO's entry onto their land for the purposes of inspections.

5. The Township's SEO shall inspect on-lot sewage disposal systems known to be, or alleged to be, malfunctioning at any time, in addition to the routine scheduled inspections. Should said inspections reveal that the system is malfunctioning, the Township shall take action to notify the owner of the obligation to correct the malfunction. If total correction is not technically feasible in the opinion of the Township and/or a representative of the DEP, action by the Owner to mitigate the malfunctions shall be required, as approved by the SEO.
6. There may arise geographical areas within the Township where numerous on-lot sewage disposal systems are malfunctioning. A resolution of these area wide problems may necessitate detailed planning and a Township-sponsored revision to that area's Act 537 Official Sewages Facilities Plan. When a DEP authorized Official Sewage Facilities Plan Revision has been undertaken by the Township, mandatory repair or replacement of individual malfunctioning sewage disposal systems within the study area may be delayed at the discretion of the Township pending the outcome of the plan revision process. However, the Township may compel immediate corrective action whenever a malfunction, as determined by the Township and the DEP, represents a serious public health or environmental threat.

Section 6. Operation.

1. Only normal domestic wastes shall be discharged into any on-lot sewage disposal system. The following shall not be discharged into the system:

    A. Industrial waste.
    B. Automobile oil and other non-domestic oil.

C. Toxic or hazardous substances or chemicals, including, but not limited to, pesticides, disinfectants, acids, paints, paint thinners, herbicides, gasoline and other solvents,

D. Clean surface or ground water, including waste from roof or cellar drains, springs, basement sump pumps and French drains.

Section 7. Maintenance.

1. Any person owning a building served by an on-lot sewage disposal system shall have the septic tank pumped by a Commonwealth of Pennsylvania licensed Pumper/Hauler within three (3) years after the effective date of this Ordinance in accordance with a schedule and regions developed by the Township, Thereafter, that person shall have the tank pumped at least once every three (3) years in accordance with a schedule and regions developed by the Township or whenever inspection reveals the necessity to do so, including but not limited to solids or scum in excess of 1/3 of liquid depth of the tank. Receipts from the Pumper/Hauler shall be submitted to the Township by the tank owner within the prescribed pumping periods.
2. In order to assure that septic tanks are properly pumped, septic tank lids shall be exposed prior to pumping. The exposure of the septic tank lid shall be the responsibility of the tank owner.
3. In the event that a person provides a receipt or other written evidence demonstrating that the person's septic tank has been pumped within three (3) years prior to the effective date of this Ordinance, the Township may delay that person's initial required pumping.
4. The required pumping frequency may be increased at the discretion of the Authorized Agent if the septic tank is undersized, if solids buildup in the tank is above average, if the hydraulic load on the system increases significantly above average, if a garbage grinder is under in the building, if the system malfunctions, or for other good cause shown.

5. The Township may require additional maintenance activity as needed, including, but not limited to: cleaning and unclogging of piping; servicing and the repair of mechanical equipment; leveling of distribution boxes, tanks and lines; removal of obstructing roots or trees; the diversion of surface water away from the disposal area; etc. Repair permits issued by the SEO must be secured for these activities.

Section 8. System Rehabilitation.

1. No person shall operate and maintain an on-lot sewage disposal system in such a manner that it malfunctions. All liquid wastes, including kitchen and laundry wastes and water softened backwash, shall be discharged to a treatment tank. No sewage system shall discharge untreated or partially treated sewage to the surface of the ground or into the waters of the Commonwealth of Pennsylvania, unless a permit to discharge has been obtained from the DEP.
2. A written notice of violation shall be issued to any person who is the owner of any property which is found to be served by a malfunctioning on-lot sewage disposal system or which is discharging sewage without a permit.
3. Within seven (7) days of notification by the Township that a malfunction has been identified, the property owner shall make application to the SEO for a permit to repair or replace the malfunctioning system. Within thirty (30) days of initial notification by the Township, construction of the permitted repair or replacement shall commence. Within sixty (60) days of the original notification by the Township, the construction shall be completed unless seasonal or unique conditions mandate a longer period, in which case the Township shall set an extended completion date.
4. An SEO shall have the authority to require the repair of any malfunction by the following methods: cleaning, repair or replacement of components of the existing system, adding capacity or otherwise altering or replacing the system's treatment tank, expanding the

existing disposal area, replacing the existing disposal area, replacing a gravity distribution system with a pressurized system, replacing the system with a holding tank, or any other alternative appropriate for the specific site.

5. In lieu of, or in combination with, the remedies described in Paragraph 4 above, an SEO may require the installation of water conservation equipment and the institution of water conservation practices in structures served. Water using devices and appliances in the structure may be required to be retrofitted with water saving appurtenances or they may be required to be replaced by water conserving devices.

6. In the event that the rehabilitation measures set forth in the preceding 5 paragraphs are not feasible or do not prove effective, the Township may require the owner to apply for a permit to construct a holding tank in accordance with any applicable Township ordinance. Upon receipt of said permit, the owner shall complete construction of the system within thirty (30) days.

7. Should none of the remedies described above prove effective in eliminating the malfunction of an existing on-lot sewage disposal system, the owner is not absolved of responsibility for that malfunction. The Township may require whatever action ls necessary to lessen or mitigate the malfunction.

Section 9. Liens. The Township, upon written notice from the SEO that an imminent health hazard exists due to failure of a property owner to maintain, repair, or replace an on-lot sewage disposal system as provided under the terms of this Ordinance, shall have the authority and discretion to perform or contract to have performed, the work required by the SEO. The owner shall be charged for the work performed and, if necessary, a lien shall be entered against the property in accordance with the law.

Section 10. Disposal of Septage.

1. All septage shall be disposed of in accordance with the requirements of the Solid Waste Management Act (Act 97 of 1980, P.S. §§6018.101 et seq.) and all other applicable laws and at sites or facilities approved by DEP. Approved sites or facilities shall include the following: septage treatment facilities, wastewater treatment plants, composting sites, and approved farm lands.
2. Pumper/haulers of septage operating within the Township shall operate in a manner consistent with the provisions of the Pennsylvania Solid Waste Management Act (Act 97 of 1980, 35 P.S. §§6018.101-6018.1003) and all other applicable laws.
3. Pumps/haulers of septage operating within the Township shall be licensed by the Commonwealth of Pennsylvania.

Section 11. Administration.

1. The Township shall have the full authority to utilize those powers it possesses through enabling statutes and ordinances to effect the purposes of this Ordinance.
2. The Township shall have the full authority to employ qualified Individuals to carry out the provisions of this Ordinance. Those employees shall include an SEO and may include an administrator and such other persons as may be necessary. The Township may also contract with private qualified persons or firms as necessary to carry out the provisions of this Ordinance.
3. All permits, records, reports, files and other written material in the possession of the Township relating to the installation, operation, maintenance and malfunction of on-lot sewage disposal systems in the Township shall become the property of, and be maintained by, the Township. Existing and future records in possession of the Township shall be available for public inspection during regular business hours at the official office of the Township. All records pertaining to sewage

permits, building permits, occupancy permits and all other aspects of the sewage management program shall be made available upon request, for inspection by representatives of the DEP.

4. The Township shall establish all administrative procedures necessary to properly carry out the provisions of this Ordinance.

5. The Township Board shall establish a fee schedule, and authorize the collection of fees, to cover the cost to the Township of administering this program.

Section 12. Appeals.

1. Appeals from final decisions of the Township or any of its Authorized Agents under this Ordinance shall be made to the Board of Supervisors, in writing, within thirty (30) days from the date of written notification of the decision in question. The appeal shall be advertised in a publication with daily circulation in the Township as required by the Second Class Township Code or other law. The failure of an individual to file a timely appeal shall constitute a waiver of that individual's ability to challenge the final decision of the Township SEO or the Township's Authorized Agent.

2. The appellant shall be entitled to a hearing before the Board of Supervisors at its next regularly scheduled meeting, if a completed, written appeal is received at least 30 days prior to that meeting (except to the extent that the applicant consents to a time extension thereof or except to the extent that the application ls submitted in such a time as to authorize the advertisement for the same). In order to be considered a completed application, the appellant shall submit all requisite fees for such appeal application. An appeal application that fails to include the requisite appeal fees shall not be considered complete and will not be considered to be submitted until such time that the requisite appeal fee is submitted. If the appeal ls received within 30 days of the next regularly scheduled Meeting, the appeal shall be heard at the following regularly scheduled meeting. The municipality shall thereafter affirm, modify, or reverse the aforesaid

decision, which may be subject to conditions. The hearing may be postponed for a good cause shown by the appellant or the Township. Additional evidence may be introduced at the hearing, such as, but not limited to, the appellant's ability to improve conditions, provided that it is submitted with the written notice of appeal. Except as otherwise provided by law, the burden shall rest with the appellant to establish relief pursuant to the appeal.

2. A decision shall be rendered by the Board of Supervisors, in writing, within thirty (30) days of the date of the hearing.

Section 13. Penalties. For each violation of the provisions of this Ordinance, the owner, agent, lessee, or contractor or any other person who commits, takes part in, or assists in any such violation shall be liable upon conviction thereof in a summary proceeding to pay a fine of not less than Two Hundred and 00/100 Dollars ($200.00) dollars nor more than One Thousand and 00/100 Dollars ($1,000.00) dollars for each offense, together with the costs of prosecution. Each day or portion thereof in which a violation exists shall be considered to be a separate violation, and each Section of this Ordinance which is violated shall be considered a separate violation. In default of payment of such fine, such person shall be liable to imprisonment for a period not exceeding thirty (30) days. In addition, the Township may also institute an action at law or in equity to require compliance with the terms of this Ordinance, All such persons shall be required to correct or remedy such violations or noncompliance within the time period set forth in an enforcement notice. Any development initiated or any structure or building constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this Ordinance may be declared to be a public nuisance and abatable as such.

Section 14. Repealer. All ordinances or parts of ordinances inconsistent with the provisions of this Ordinance are hereby superseded to the extent of such inconsistency insofar as the same affects this Ordinance.

Section 15. Severability. If any section or clause of this Ordinance shall be adjudged Invalid, such adjudication shall not affect the validity of the remaining provisions which shall be deemed severable therefrom. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

Section 16. Effective Date. This Ordinance shall be effective five (5) days after enactment.

Section 17. Renumbering. The location and numerical designation of these revised Sections shall be delegated to the discretion of the General Code Publishers which may renumber or reorder these revised Sections as is necessary.

DULY ENACTED AND ORDAINED this _____ day of _____, 20____.

BOARD OF SUPERVISORS
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY,
PENNSYLVANIA

_____
Supervisor

_____
Supervisor

_____
Supervisor

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix H ■ PA Natural Diversity Inventory Search Results

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

BUREAU OF FORESTRY

February 20, 2020

PNDI Number: 703826
Version: Final_1; 2/18/20

Nicholas Volk
Systems Design Engineering, Inc.
1032 James Drive
Leesport, PA 19533
Email: n.volk@sdei.net (hard copy will not follow)

Re: North Manheim Twp – Act 537 – Future Sewer
Schuylkill, PA

Dear Mr. Volk,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **703826 (Final_1)** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Alexander Dogonniuck, Ecological Information Specialist, by phone (717-783-3913) or via email (c-adogonni@pa.gov).

Sincerely

Greg Podniesinski

Greg Podniesinski, Section Chief
Natural Heritage Section

North Manheim Twp - Act 537 - Future Sewer (PNDI-703826)

View (/project/north-manheim-twp-act-537-future-sewer-656465)

Edit Details/Finalize (/node/656465/edit) | Edit/View Shape (/node/656465/map)

Update Receipt (/node/656465/run-review)

This project has not yet been finalized and submitted for review.

Fields marked with red asterisks are required fields.

Project Title *

North Manheim Twp - Act 537 - Future Sewer

User Project Number(s)
Organization-specific project number(s) for user tracking purposes (optional)

17-0164-0113

Project Description
Enter a project description and/or upload a separate cover letter after the project has been submitted.

Project involves the extension of sanitary sewer mains on the locations indicated on the map in North Manheim Township, Schuylkill County, PA.

File attachments

Add a new file
Attach supporting documentation here. ***Please note:*** *This is a two-step process; first Choose the File and then Upload it to attach to the project. Files added to the project are not permanent until you save or submit this page.*

Choose File No file chosen

Upload

Files must be less than **10 MB** each.
Allowed file types: **doc jpg jpeg gif png txt doc xls pdf ppt pps odt ods odp docx xlsx zip kml kmz.**

I will mail my project documentation to the agencies requesting coordination on the PNDI reciept.

Check this box if you will NOT be uploading project documentation to DCNR, PGC or PFBC for environmental review.

☐ **No further review is required.**
*Check this box if the draft PNDI receipt indicates no impacts to threatened, endangered and/or species of special concern are present **and** (if applicable) you agree to comply with all avoidance measures listed on the receipt.*

Contact Information

Save Details | Submit Final Receipt for Review | Cancel

PA Conservation Explorer - Version 1.4.2 | Terms of Use (/legal) | Disclaimer Policy (/content/disclaimer-policy) | A Partner of the NatureServe Network (http://www.natureserve.org/natureserve-network) © 2020

POWERED BY NatureServe (https://www.natureserve.org)

Receipt Explanation

Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Results

The PNDI Project Environmental Review Receipt lists the search results for the four jurisdictional agencies: PA Department of Conservation and Natural Resources, PA Game Commission, PA Fish and Boat Commission, and the U.S. Fish and Wildlife Service. There are four possible results for each agency: No Known Impact, Potential Impact, Avoidance Measure or Conservation Measures. Projects will have different results depending on the search area, the project type, and the species and communities located in the area, therefore it is important to read each section of the ER Receipt.

No Known Impact
There are no potential impacts anticipated with special concern species or resources in the project area. No further coordination is required with PNDI jurisdictional agency within two years of the Receipt date unless project plans change.

If the search result for all four agencies is 'No Known Impact', no further coordination is required with the jurisdictional agencies. Print the receipt and send it to DEP for permit applications or for use for environmental assessments.

Potential Impact

There are potential impacts anticipated with threatened and endangered and/or special concern species and resources in the project area. The applicant must consult with the jurisdictional agency/agencies listed with Potential Impacts on the receipt for further review of the project. Please send the information requested on the receipt to the agency/agencies noted. The applicant will receive recommendation or clearance letters from the agency/agencies. If the search was conducted for a DEP permit, read the section below.

DEP instructions for projects with Potential Impacts

The Pennsylvania Department of Environmental Protection (DEP) requires that a signed copy of the receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review.

For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where “Potential Impact” to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a U.S.G.S. 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). The DEP PNDI Policy (http://www.gis.dcnr.state.pa.us/PNDI/021-0200-001%20PNDI%20Policy.pdf) is available on the Help>Resources page.

Avoidance Measure

There are special concern species or resources in the vicinity of the project area that could be impacted by the project. Avoidance Measures are intended to reduce the need for further coordination with Jurisdictional Agencies on projects that could be “No Known Impact” if the Avoidance Measures are carried out. If the Receipt lists Avoidance Measures, the PNDI review is not complete or satisfied until the applicant has signed indicating they can and will fulfill the Avoidance Measures for that project. If an Avoidance Measure cannot be met or if the applicant chooses not to fulfill it, the project is treated as a “Potential Impact” and must be sent to the Jurisdictional Agency indicated for further review. In the latter case, a clearance or recommendation letter will be required from the jurisdictional agency/agencies indicated, along with the PNDI Receipt, for submission with DEP permit applications.

Both Potential Impacts and Avoidance Measures may occur for the same project with different Jurisdictional Agencies. If there is an Avoidance Measure for one Jurisdictional Agency and a Potential Impact listed for a different agency, then the Avoidance Measure must be signed (if the measure can be fulfilled) and the project should be forwarded to the other Jurisdictional Agency/Agencies for clearance or recommendation letters.

Conservation Measure

There are special concern species and resources in the project area that may be impacted by the project, but the impacts could be minimized if certain measures were incorporated. Conservation Measures are suggestions meant to reduce further impact to the special concern species or resource in the vicinity of the project or to protect special concern species or resources that currently lack legal protection. If the Receipt contains a Conservation Measure, that measure can be pursued at the discretion of the DEP program based on their knowledge of the project and site. Conservation Measures are strongly recommended by the Jurisdictional Agencies but are not required.

PA Conservation Explorer - Version 1.4.2 | Terms of Use (/legal) | Disclaimer Policy (/content/disclaimer-policy) | A Partner of the NatureServe Network (http://www.natureserve.org/natureserve-network) © 2020

(https://www.natureserve.org)

1. PROJECT INFORMATION

Project Name: **North Manheim Twp - Act 537 - Future Sewer**
Date of Review: **2/18/2020 12:17:28 PM**
Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)**
Project Area: **158.28 acres**
County(s): **Schuylkill**
Township/Municipality(s): **CRESSONA; NORTH MANHEIM; NORWEGIAN; ORWIGSBURG; POTTSVILLE; SCHUYLKILL HAVEN; WEST BRUNSWICK**
ZIP Code: **17901; 17922; 17929; 17961; 17972**
Quadrangle Name(s): **FRIEDENSBURG; ORWIGSBURG; POTTSVILLE**
Watersheds HUC 8: **Schuylkill**
Watersheds HUC 12: **East Branch Schuylkill River; Headwaters Schuylkill River; Mahannon Creek-Schuylkill River**
Decimal Degrees: **40.644624, -76.143254**
Degrees Minutes Seconds: **40° 38' 40.6459" N, 76° 8' 35.7156" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

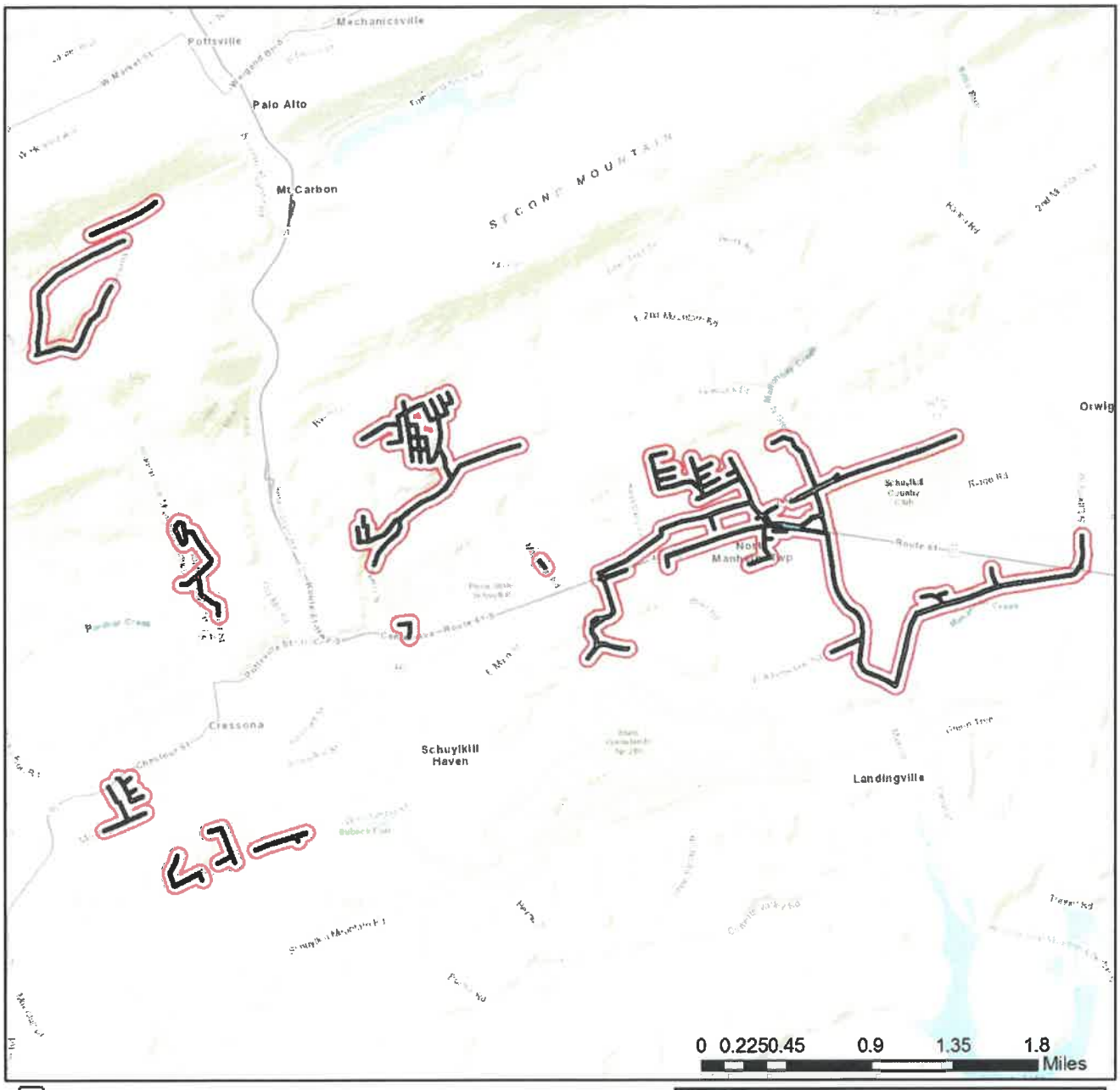
North Manheim Twp - Act 537 - Future Sewer

Project Boundary

Buffered Project Boundary

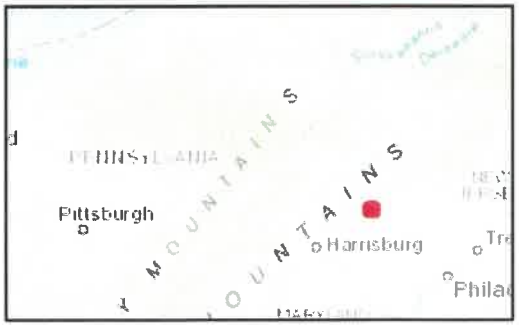
Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

North Manheim Twp - Act 537 - Future Sewer



Project Boundary

Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

RESPONSE TO QUESTION(S) ASKED

Q1: Will the entire project area (including any discharge), plus a 300 feet buffer around the project area, all occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, railroad bed, maintained (periodically mown) lawn, crop agriculture field or maintained orchard?
Your answer is: Unknown

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources
RESPONSE:
Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: https://conservationexplorer.dcnr.pa.gov/content/survey-protocols)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Paronychia fastigiata var. nuttallii	Forked-chickweed	Special Concern Species*	Endangered	Flowers July - September

PA Fish and Boat Commission
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service
RESPONSE:
No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.
** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found here. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).
***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:
_✓_ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
_✓_ A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
In addition to the materials listed above, USFWS REQUIRES the following
_✓_ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.
____ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
____ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Matthew J. Peleschak, P.E.
Company/Business Name: Systems Design Engineering, Inc.
Address: 1032 James Drive
City, State, Zip: Leesport, PA 19533
Phone: (610) 916-8500 Fax: (610) 916-8501
Email: m.paleschak@sdei.net

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Matthew J. Peleschak — applicant/project proponent signature

2/18/20 — date

NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
PNDI PROJECT NARRATIVE

The Pennsylvania Sewage Facilities Act requires that every municipality within the Commonwealth develop and maintain an up-to-date sewage facilities plan. The North Manheim Township Board of Supervisors, Schuylkill County, Pennsylvania, authorized the preparation of this report to serve as its Official Sewage Facilities Plan Update (Plan). The Township retained the services of Systems Design Engineering, Inc. to assist with preparation of the Plan. The Township last prepared an Act 537 Plan Update in 1994.

The planning area is the entire Township of North Manheim, and the planning period is through 2040. The Township is rural in character; however, portions of the Township along State Route 61 corridor, which traverses the Township north-south between the City of Pottsville and Schuylkill Haven Borough and east-west from Schuylkill Haven Borough to Orwigsburg Borough are more developed.

Wastewater generated in North Manheim Township that is discharged to the public sewer system is conveyed to and treated at one of three public WWTPs; the Schuylkill Haven WWTP, the Cressona WWTP, or the Pottsville WWTP. In addition, a portion of the Township is serviced by a private conveyance and treatment system, which is owned and operated by Seiders Hill, LLC.

Population and wastewater flow projections were developed in Chapter 4 for a 20-year planning period. Projections developed in Chapter 4 for those portions of North Manheim Township tributary to the each of the WWTPs indicates the existing facilities have sufficient capacity to handle the Township's projected growth.

Although more than 400 occupied parcels in the Township are served by public sewers, the majority of the developed properties in the Township rely on individual on-lot wastewater treatment and disposal systems. Collection system expansion alternatives from previous sewage facility planning that were not constructed are outlined below. In addition, expansion of sewage collection systems to address sewage needs are identified. A total of 11 collection system expansion alternatives were developed for the plan. Each of the alternatives are graphically outlined in the attached exhibits.

Wastewater management alternatives developed as part of the Act 537 planning process must be evaluated in terms of their relationship to the goals and objectives of various planning, environmental, and natural resource laws and policies of the Commonwealth of Pennsylvania; one of which is the Pennsylvania Natural Diversity Inventory. The Pennsylvania Natural Diversity Inventory (PNDI) maintains a database containing site information on regulated plant and animal

species, outstanding geological features, and significant natural communities. A search of the Pennsylvania Department of Conservation and Natural Resources PNDI database for the portions of the Township encompassing the area where new public sewerage facilities were proposed for each alternative was completed. A preliminary PNDI database search indicated that there is a potential impact to forked-chickweed (*Paronychia fastigiata var. nuttallii*) and further review is required.

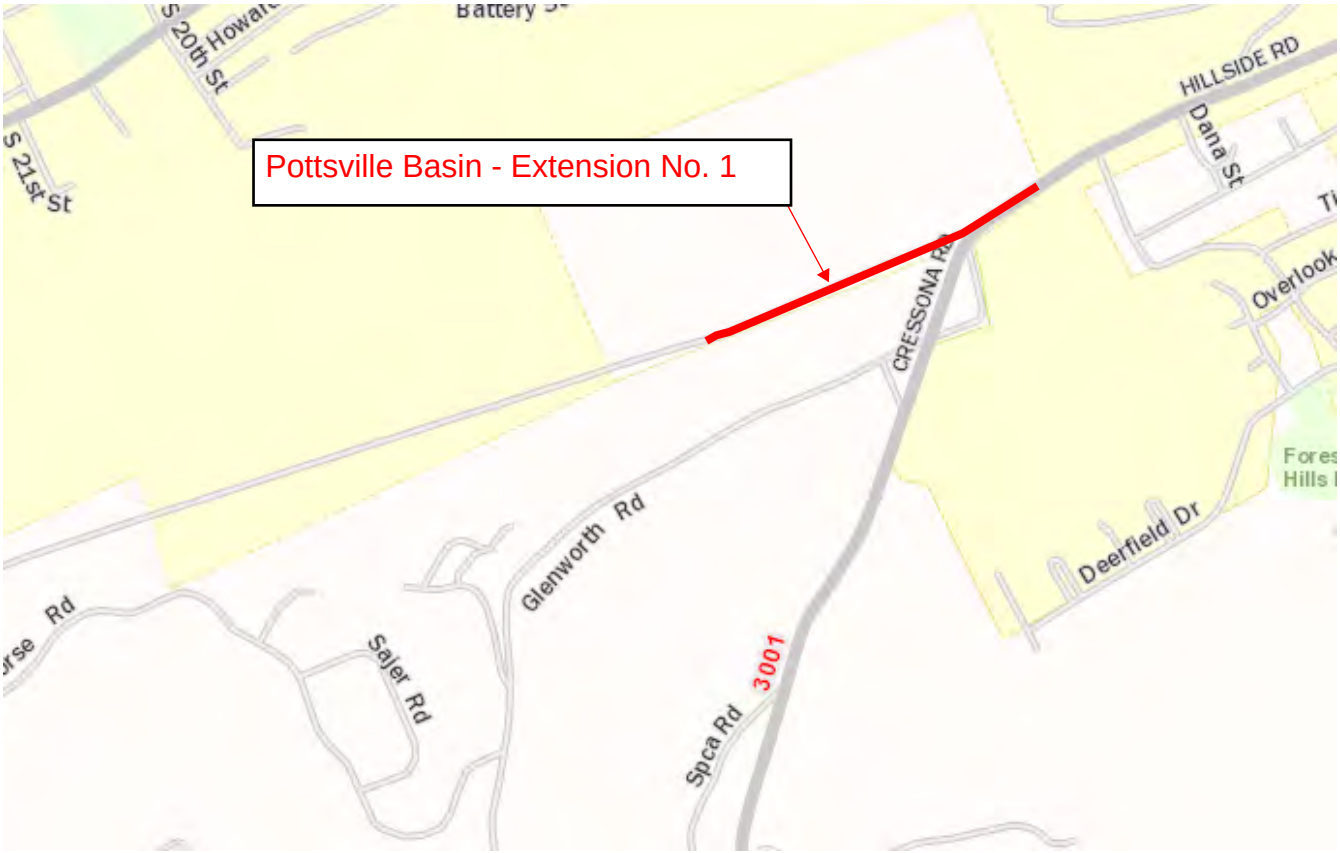
Construction of any of the alternatives identified in the plan involves temporary construction associate with laying of sewage collection systems to service existing residential/commercial properties within the Township. The Plan assumes that the location of the sewer mains will be within existing municipal/state right-of-ways as much as possible. Once constructed, the surface will be restored to as close to existing conditions as possible.

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix I ■ PA Historic and Museum Commission Cultural Resource Search Results

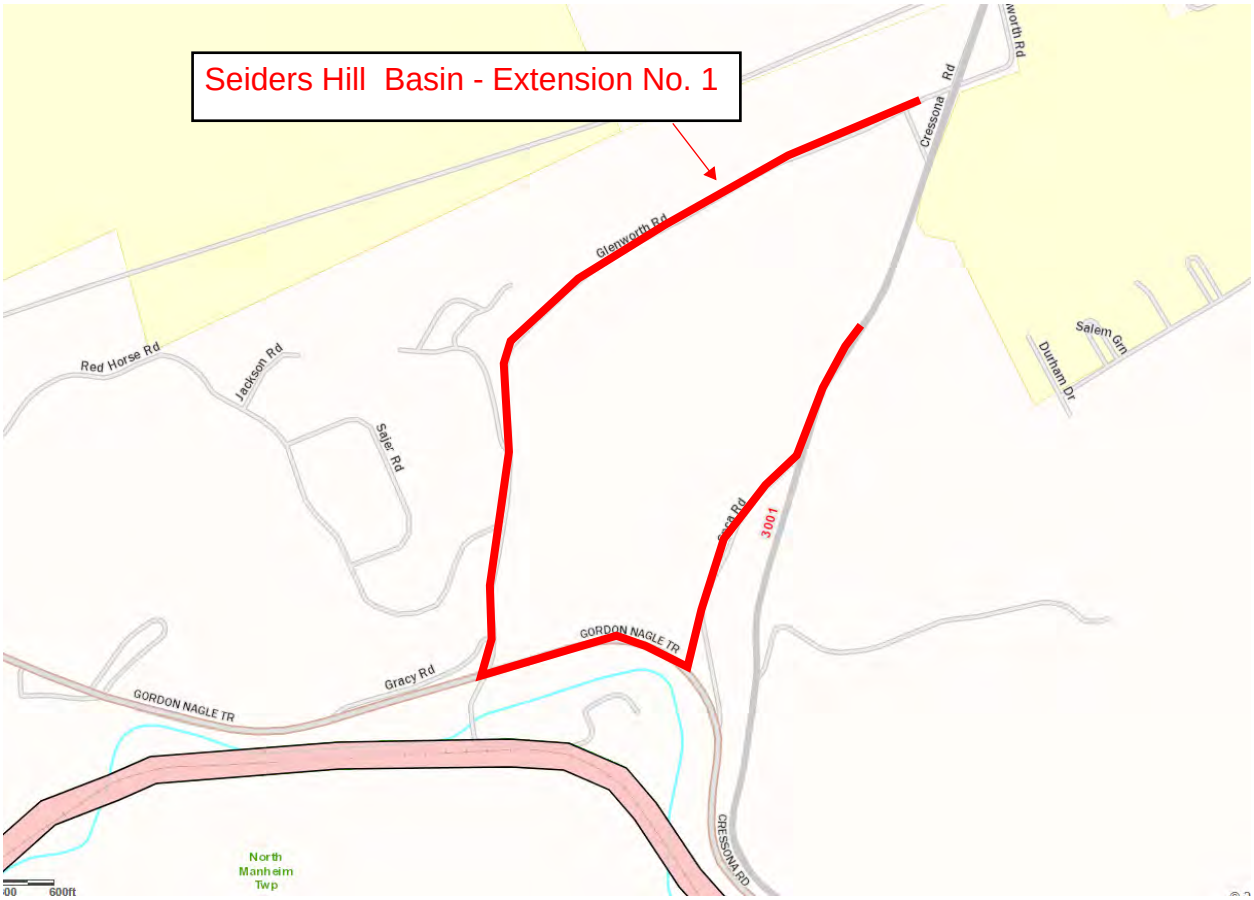
North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16B

No historical sites popped up on the CRGIS search for this section. Below is a map from the CRGIS of the road section (Hillside Drive) where the sewer extension will occur.



North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16C

No historical sites popped up on the CRGIS search for this section. Below is a map from the CRGIS of the road section (Glenworth Road, Gordon Nagle Road, Spca Road, & Cressona Road) where the sewer extension will occur.



Archaeological Site Information

Identification

Site Number: 36SC0088
Site Type: Historic Commercial Site;
Historic Domestic Site
ER #: 2014-8045-107A

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed D	Schuylkill River	Other

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: South
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Dh-Devonian Hamilton Group
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	5 m	555 ft	South	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 6/1/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

06/01/2016: Date Record Updated
06/01/2016: Date Record Added

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Site Area: 2132
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Poor Quality of Preservation
Vegetation Cover: Lawn
Stratified: No

Chronology

Placement	Frequency	Basis
1900-2000	Present	Ceramics

Archaeological Site Information

Historic	Present	Historical Documents
1800-1900	Present	Historical Documents
1850-1875	Present	Historical Documents
1875-1900	Present	Historical Documents
1900-1925	Present	Historical Documents
1925-1950	Present	Historical Documents
1950-1975	Present	Historical Documents
1975-2000	Present	Historical Documents

Features

Features	Count	Image
Water Well	1	
Standing Building or Structure	2	
Other, Historic	2	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
Hist Activities, Arms & Weapons	Metal	2	
Hist Unidentified	Biological	14	
X-Legacy, Activities	Metal	1	
X-Legacy, Architectural	Ceramic	9	
X-Legacy, Architectural	Glass	16	
X-Legacy, Architectural	Metal	21	
X-Legacy, Architectural	Geological	19	
X-Legacy, Industrial (Tools)	Metal	1	
X-Legacy, Industrial (Tools)	Geological	36	
X-Legacy, Kitchen	Ceramic	17	
X-Legacy, Kitchen	Glass	25	
X-Legacy, Personal	Metal	1	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Ammunition	Composite	Present	2	
Coin	Metal	Present	1	
Cut Nails	Metal	Present	8	
Pearlware (All Decoration Types)	Ceramic	Present	1	
Redware (All Types)	Ceramic	Present	4	
Transitional Whiteware	Ceramic	Present	5	
Wire Nails	Metal	Present	10	

Recovery Method: Controlled Excavation

National Register Information

No Data Present

Archaeological Site Information

Attachments	**No Data Present**
Comments	**No Data Present**
Phase 2 Methods	**No Data Present**
Phase 3 Methods	**No Data Present**

Archaeological Site Information

Identification

Site Number: 36SC0089
Site Type: Historic Farmstead
ER #: 2014-8045-107

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: Southwest
Slope Basis: Soil Survey or Map
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	45 m	554 ft	Southwest	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 6/1/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

06/01/2016: Date Record Updated
06/01/2016: Date Record Added

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Site Area: 1700
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Poor Quality of Preservation
Vegetation Cover: Grasses and Brush
Stratified: No

Chronology

Placement	Frequency	Basis
1900-2000	Present	Ceramics
Historic	Present	Ceramics

Archaeological Site Information

1800-1900	Present	Ceramics
1850-1875	Present	Ceramics
1875-1900	Present	Ceramics

Features

Features	Count	Image
Water Well	1	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
X-Legacy, Architectural	Ceramic	1	
X-Legacy, Architectural	Glass	63	
X-Legacy, Architectural	Metal	41	
X-Legacy, Industrial (Tools)	Glass	25	
X-Legacy, Industrial (Tools)	Metal	8	
X-Legacy, Industrial (Tools)	Geological	127	
X-Legacy, Industrial (Tools)	Composite	1	
X-Legacy, Kitchen	Ceramic	2	
X-Legacy, Kitchen	Glass	8	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Cut Nails	Metal	Present	33	
Transitional Whiteware	Ceramic	Present	1	
Wire Nails	Metal	Present	4	

Recovery Method: Controlled Excavation

National Register Information

No Data Present

Attachments

No Data Present

Comments

No Data Present

Phase 2 Methods

No Data Present

Phase 3 Methods

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0095
Site Type: Historic Domestic Site
ER #: 2014-8045-107

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: South
Slope Basis: Soil Survey or Map
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Dh-Devonian Hamilton Group
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	2 m	555 ft	South	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 7/6/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

03/12/2018: Date Record Updated
03/07/2018: Date Record Added
07/06/2016: Site Recorded

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Test Pits/Excavation Units
Site Area: 1040
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Good Quality of Preservation
Vegetation Cover: Lawn
Stratified: No

Chronology

Placement	Frequency	Basis

Archaeological Site Information

1800-2000	Present	Ceramics
1800-1900	Present	Ceramics
1850-1875	Present	Ceramics
1875-1900	Present	Ceramics
1900-1925	Present	Ceramics
1925-1950	Present	Ceramics
1950-1975	Present	Ceramics
1975-2000	Present	Ceramics

Features

Features	Count	Image
Pipeline	1	
Standing Building or Structure	1	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
Hist Domestic, Furnishings	Glass	86	
Hist Personal, Drugs/Alcohol/Tobacco	Ceramic	1	
X-Legacy, Activities	Ceramic	23	
X-Legacy, Activities	Glass	1	
X-Legacy, Activities	Metal	2	
X-Legacy, Architectural	Ceramic	15	
X-Legacy, Architectural	Glass	37	
X-Legacy, Architectural	Metal	20	
X-Legacy, Industrial (Tools)	Plastic	1	
X-Legacy, Industrial (Tools)	Metal	5	
X-Legacy, Industrial (Tools)	Biological	6	
X-Legacy, Kitchen	Plastic	7	
X-Legacy, Kitchen	Ceramic	72	
X-Legacy, Kitchen	Glass	34	
X-Legacy, Kitchen	Metal	2	
X-Legacy, Personal	Glass	6	
X-Legacy, Personal	Metal	3	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Clay pipes	Ceramic	Present	1	
Creamware	Ceramic	Present	1	
Cut Nails	Metal	Present	13	
English Porcelain	Ceramic	Present	1	
Ironstone	Ceramic	Present	46	
Pearlware (All Decoration Types)	Ceramic	Present	1	

Archaeological Site Information

Redware (All Types)	Ceramic	Present	4	
Toy	Unknown	Present	3	
Wire Nails	Metal	Present	10	

Recovery Method: Controlled Excavation

National Register Information **No Data Present**

Attachments **No Data Present**

Comments **No Data Present**

Phase 2 Methods **No Data Present**

Phase 3 Methods **No Data Present**

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2014-8045-107-B
Title: Phase I Archaeological Survey Report, S.R. 3005 Bridge over the West Branch of the Schuylkill River Project, North Manheim Township, Schuylkill County, Pennsylvania.
Author: Michael Lenert
Organization: A.D. Marble & Company
Date: 11/10/2014
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 56

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	2.3	2	
Geomorphological Report	2.3	0	

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0088	W. Beck House/ Hotel Site
36SC0089	W.Beck Farmstead Site

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

No Data Present

Comments

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2014-8045-107-E
Title: Phase I Archaeological Survey, Addendum Report, S. R. 3005 Bridge over the West Branch of the Schuylkill River Project, North Manheim Township, Schuylkill County, Pennsylvania
Author: White, R.
Organization: A. D. Marble
Date: 7/6/2016
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 36

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	.1	1	
Addendum Report	.1	1	Systematic Sub-Surface Testing

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office
Resource Forms	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0095	W. Strause

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

No Data Present

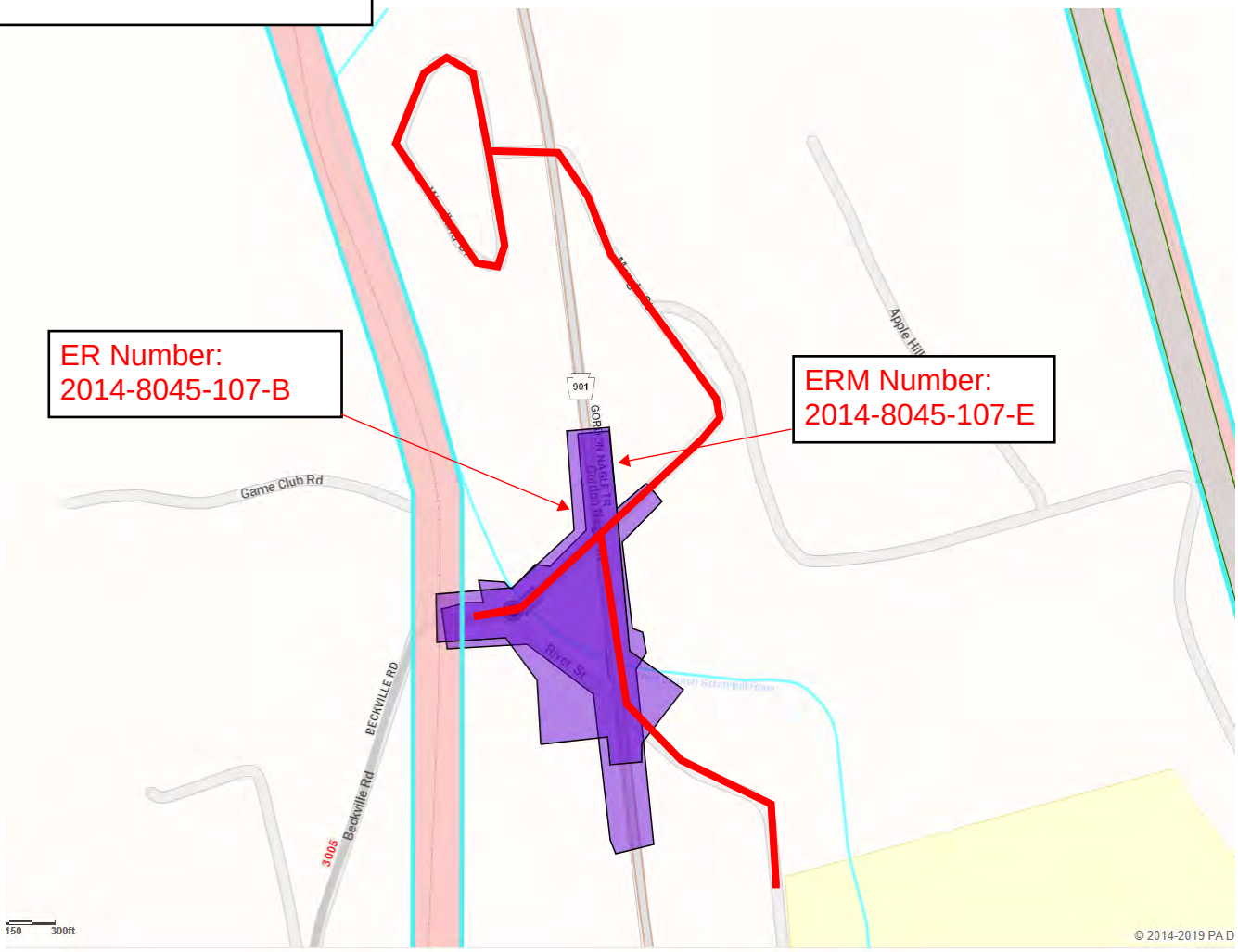
Comments

No Data Present

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16D

Below is a map from the CRGIS of the road section (Gordon Nagle Trail & Woodland Drive) where the sewer extension will occur. Attached are the reports from the two areas where an archeological survey was recorded.

Cressona Basin - Extension No. 1



Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2014-8045-107-B
Title: Phase I Archaeological Survey Report, S.R. 3005 Bridge over the West Branch of the Schuylkill River Project, North Manheim Township, Schuylkill County, Pennsylvania.
Author: Michael Lenert
Organization: A.D. Marble & Company
Date: 11/10/2014
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 56

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	2.3	2	
Geomorphological Report	2.3	0	

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0088	W. Beck House/ Hotel Site
36SC0089	W.Beck Farmstead Site

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

No Data Present

Comments

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0089
Site Type: Historic Farmstead
ER #: 2014-8045-107

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: Southwest
Slope Basis: Soil Survey or Map
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	45 m	554 ft	Southwest	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 6/1/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

06/01/2016: Date Record Updated
06/01/2016: Date Record Added

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Site Area: 1700
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Poor Quality of Preservation
Vegetation Cover: Grasses and Brush
Stratified: No

Chronology

Placement	Frequency	Basis
1900-2000	Present	Ceramics
Historic	Present	Ceramics

Archaeological Site Information

1800-1900	Present	Ceramics
1850-1875	Present	Ceramics
1875-1900	Present	Ceramics

Features

Features	Count	Image
Water Well	1	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
X-Legacy, Architectural	Ceramic	1	
X-Legacy, Architectural	Glass	63	
X-Legacy, Architectural	Metal	41	
X-Legacy, Industrial (Tools)	Glass	25	
X-Legacy, Industrial (Tools)	Metal	8	
X-Legacy, Industrial (Tools)	Geological	127	
X-Legacy, Industrial (Tools)	Composite	1	
X-Legacy, Kitchen	Ceramic	2	
X-Legacy, Kitchen	Glass	8	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Cut Nails	Metal	Present	33	
Transitional Whiteware	Ceramic	Present	1	
Wire Nails	Metal	Present	4	

Recovery Method: Controlled Excavation

National Register Information

No Data Present

Attachments

No Data Present

Comments

No Data Present

Phase 2 Methods

No Data Present

Phase 3 Methods

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0089
Site Type: Historic Farmstead
ER #: 2014-8045-107

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: Southwest
Slope Basis: Soil Survey or Map
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	45 m	554 ft	Southwest	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 6/1/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

06/01/2016: Date Record Updated
06/01/2016: Date Record Added

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Site Area: 1700
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Poor Quality of Preservation
Vegetation Cover: Grasses and Brush
Stratified: No

Chronology

Placement	Frequency	Basis
1900-2000	Present	Ceramics
Historic	Present	Ceramics

Archaeological Site Information

1800-1900	Present	Ceramics
1850-1875	Present	Ceramics
1875-1900	Present	Ceramics

Features

Features	Count	Image
Water Well	1	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
X-Legacy, Architectural	Ceramic	1	
X-Legacy, Architectural	Glass	63	
X-Legacy, Architectural	Metal	41	
X-Legacy, Industrial (Tools)	Glass	25	
X-Legacy, Industrial (Tools)	Metal	8	
X-Legacy, Industrial (Tools)	Geological	127	
X-Legacy, Industrial (Tools)	Composite	1	
X-Legacy, Kitchen	Ceramic	2	
X-Legacy, Kitchen	Glass	8	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Cut Nails	Metal	Present	33	
Transitional Whiteware	Ceramic	Present	1	
Wire Nails	Metal	Present	4	

Recovery Method: Controlled Excavation

National Register Information

No Data Present

Attachments

No Data Present

Comments

No Data Present

Phase 2 Methods

No Data Present

Phase 3 Methods

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2014-8045-107-E
Title: Phase I Archaeological Survey, Addendum Report, S. R. 3005 Bridge over the West Branch of the Schuylkill River Project, North Manheim Township, Schuylkill County, Pennsylvania
Author: White, R.
Organization: A. D. Marble
Date: 7/6/2016
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 36

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	.1	1	
Addendum Report	.1	1	Systematic Sub-Surface Testing

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office
Resource Forms	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0095	W. Strause

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

No Data Present

Comments

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0095
Site Type: Historic Domestic Site
ER #: 2014-8045-107

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Quadrangle: Pottsville
Soil Mapping Unit(s): UU, MeB
Site Elevation: 561
Slope Aspect: South
Slope Basis: Soil Survey or Map
Average Slope: 2
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Floodplain
Predominant Bedrock Formation(s): Dtr-Devonian Trimmers Rock Formation
Dh-Devonian Hamilton Group
Relationship to Confluence: Site Upstream from Confluence, but Not Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	2 m	555 ft	South	2	Perennial Stream
Nearest Confluence	721 m	535 ft	Southeast	2	Confluence

Status

NR Status: Unevaluated
NR Status Date: 7/6/2016
Owner: Private
Primary Disturbance: Private, Commercial, Industrial Development

Administrative Actions

03/12/2018: Date Record Updated
03/07/2018: Date Record Added
07/06/2016: Site Recorded

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Test Pits/Excavation Units
Site Area: 1040
Area Basis: From USGS Map
Organic Preservation: Organic Material Recovered, Good Quality of Preservation
Vegetation Cover: Lawn
Stratified: No

Chronology

Placement	Frequency	Basis

Archaeological Site Information

1800-2000	Present	Ceramics
1800-1900	Present	Ceramics
1850-1875	Present	Ceramics
1875-1900	Present	Ceramics
1900-1925	Present	Ceramics
1925-1950	Present	Ceramics
1950-1975	Present	Ceramics
1975-2000	Present	Ceramics

Features

Features	Count	Image
Pipeline	1	
Standing Building or Structure	1	

Lithic Materials

No Data Present

Artifacts

General Artifact Type	Material	Quantity	Image
Hist Domestic, Furnishings	Glass	86	
Hist Personal, Drugs/Alcohol/Tobacco	Ceramic	1	
X-Legacy, Activities	Ceramic	23	
X-Legacy, Activities	Glass	1	
X-Legacy, Activities	Metal	2	
X-Legacy, Architectural	Ceramic	15	
X-Legacy, Architectural	Glass	37	
X-Legacy, Architectural	Metal	20	
X-Legacy, Industrial (Tools)	Plastic	1	
X-Legacy, Industrial (Tools)	Metal	5	
X-Legacy, Industrial (Tools)	Biological	6	
X-Legacy, Kitchen	Plastic	7	
X-Legacy, Kitchen	Ceramic	72	
X-Legacy, Kitchen	Glass	34	
X-Legacy, Kitchen	Metal	2	
X-Legacy, Personal	Glass	6	
X-Legacy, Personal	Metal	3	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Clay pipes	Ceramic	Present	1	
Creamware	Ceramic	Present	1	
Cut Nails	Metal	Present	13	
English Porcelain	Ceramic	Present	1	
Ironstone	Ceramic	Present	46	
Pearlware (All Decoration Types)	Ceramic	Present	1	

Archaeological Site Information

Redware (All Types)	Ceramic	Present	4	
Toy	Unknown	Present	3	
Wire Nails	Metal	Present	10	

Recovery Method: Controlled Excavation

National Register Information **No Data Present**

Attachments **No Data Present**

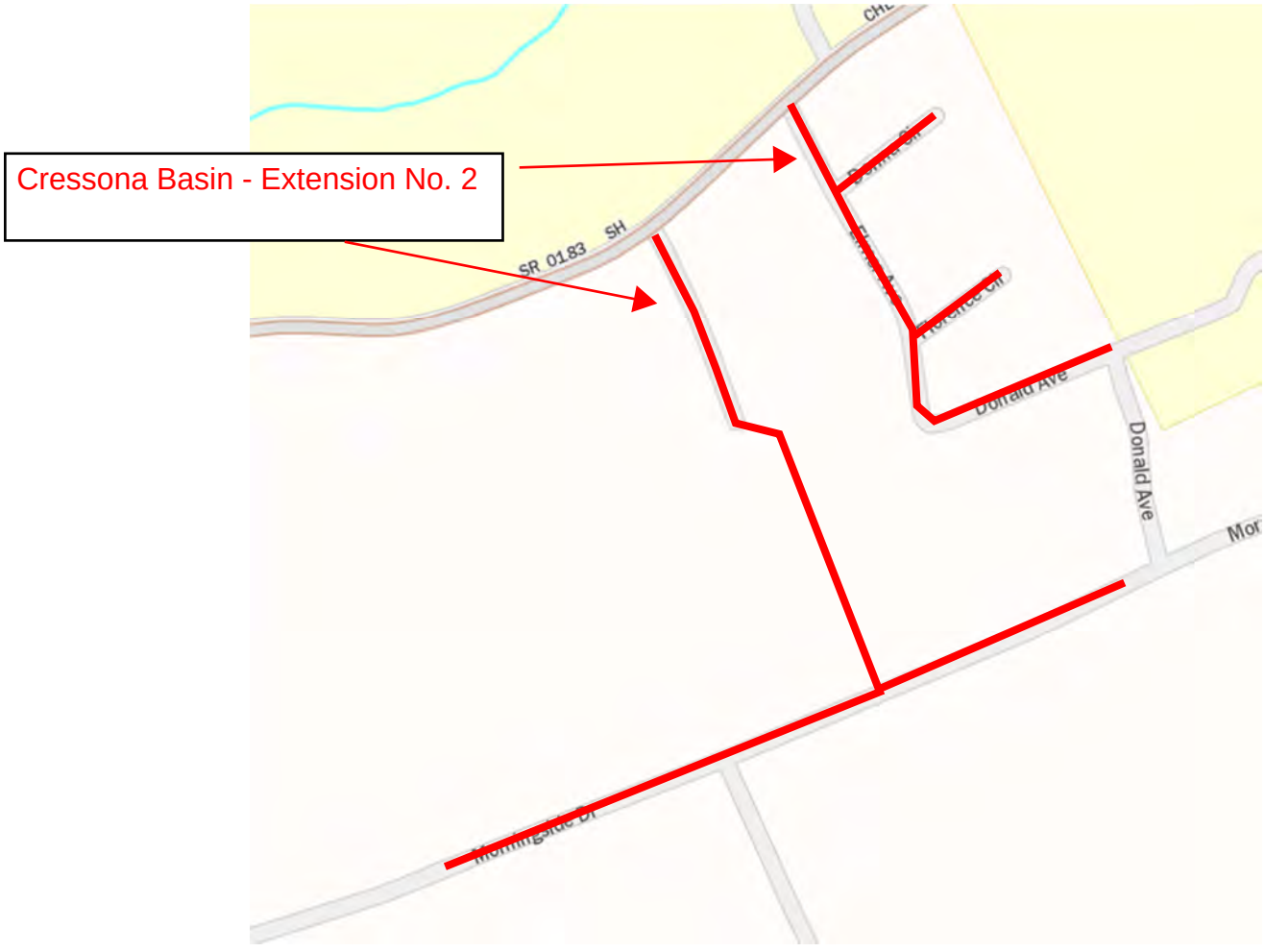
Comments **No Data Present**

Phase 2 Methods **No Data Present**

Phase 3 Methods **No Data Present**

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16E

No historical sites popped up on the CRGIS search for this section. Below is a map from the CRGIS of the road section (Elmer Avenue & Morningside Drive) where the sewer extension will occur.



Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1992-0126-107-F
Title: Ph I Cult. Res. Invest. Of The Route 443 Long Run Interceptor Project., N. Manheim Twp., Sc Co, PA
Author: P. Perazio, K. Joire, K. Joire
Organization: KAR
Date: 2/1/1994
Agency: PENNV
Agency Type: State Agency
No. of Pages: 34

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	9.18	1	Systematic Shovel Testing
Phase I	9.18	1	Systematic Shovel Testing
Phase I	9.18	1	Systematic Shovel Testing

Repository

No Data Present

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0057	Dominski

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

Type	Name
Abstract	19920126107F.PDF

Comments

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0057
Site Type: Open Pre-Contact Site, Unknown Function
ER #: 1992-0126-107-F

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A		Little Swatara Creek

Quadrangle: Friedensburg
Soil Mapping Unit(s): SHB, WAB, AT
Site Elevation: 560
Slope Aspect: Multiple
Slope Basis: Soil Survey or Map
Average Slope: 5
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Stream Bench
Predominant Bedrock Formation(s): Dh-Devonian Hamilton Group
DSop-Devon/Silurian Onondaga Formation thr Poxono Island Form undiv
Dtr-Devonian Trimmers Rock Formation
Relationship to Confluence: Site Upstream from Confluence and Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	30 m	560 ft	South	1	Perennial Stream
2nd Nearest Water	2160 m	520 ft	Northeast	5	Perennial Stream
Nearest Confluence	2160 m	520 ft	Northeast	5	Confluence

Status

NR Status: Unevaluated
Owner: Unknown

Administrative Actions

11/23/1993: Site Recorded

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Organic Preservation: Unknown
Vegetation Cover: Pasture
Stratified: Unknown

Chronology

Placement	Frequency	Basis
Pre-Contact	91% - 100%	Lithics

Features

Archaeological Site Information

Features	Count	Image
None found thus far		

Lithic Materials

Jasper: 91% - 100%

Artifacts

General Artifact Type	Material	Quantity	Image
PreC, Other, Stone Debitage	Unknown	Less than 25	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Unknown	Unknown	Present		

Repository	Item
Collection Retained by Consultant	

Recovery Method: Representative Sample of All Artifacts

National Register Information

No Data Present

Attachments

No Data Present

Comments

No Data Present

Phase 2 Methods

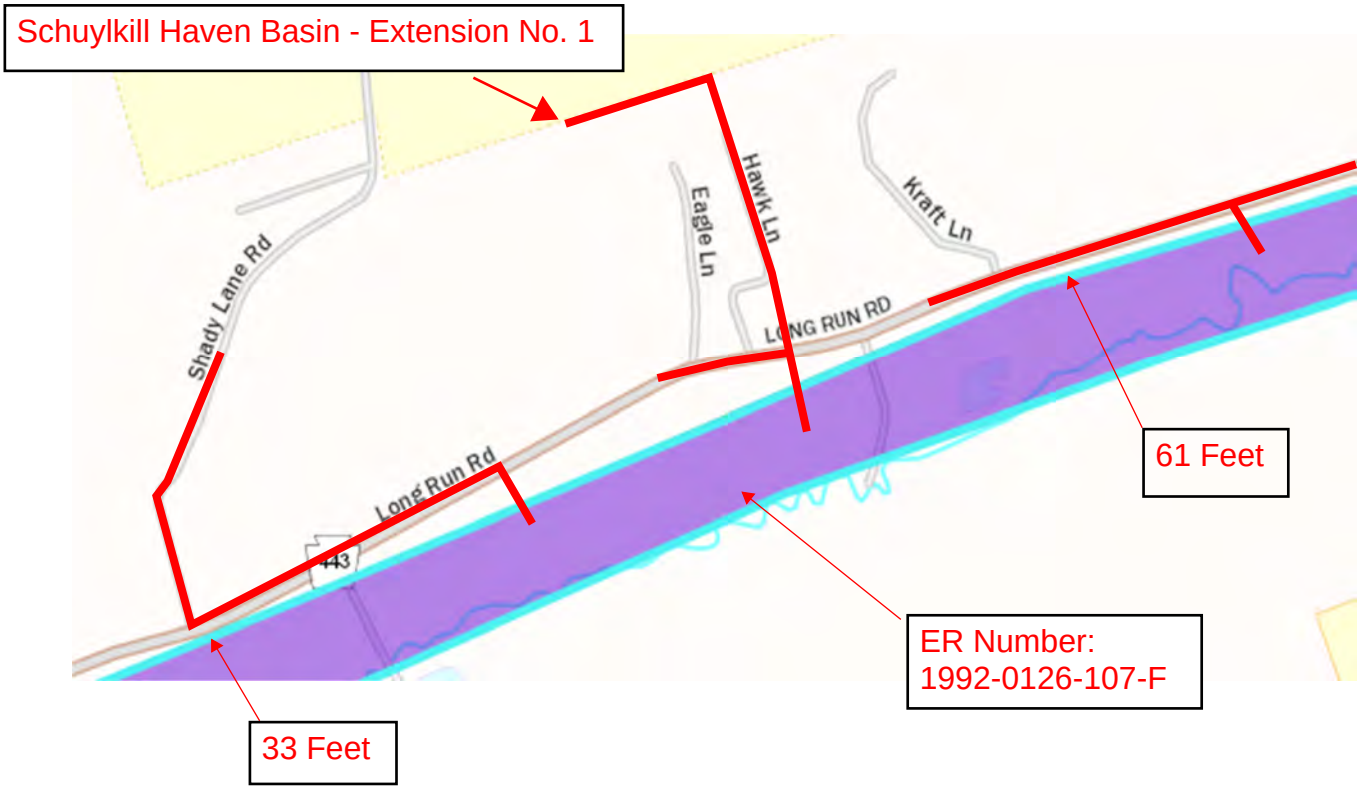
No Data Present

Phase 3 Methods

No Data Present

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16F

Below is a map from the CRGIS of the road section (Long Run Road & Shady Lane Road) where the sewer extension will occur. Attached are the reports from the area where a Long Run Road Interceptor Project was recorded.



Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1992-0126-107-F
Title: Ph I Cult. Res. Invest. Of The Route 443 Long Run Interceptor Project., N. Manheim Twp., Sc Co, PA
Author: P. Perazio, K. Joire, K. Joire
Organization: KAR
Date: 2/1/1994
Agency: PENNV
Agency Type: State Agency
No. of Pages: 34

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	9.18	1	Systematic Shovel Testing
Phase I	9.18	1	Systematic Shovel Testing
Phase I	9.18	1	Systematic Shovel Testing

Repository

No Data Present

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	West Branch of Schuylkill River

Resources Reported

ID Number	Name
36SC0057	Dominski

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

Type	Name
Abstract	19920126107F.PDF

Comments

No Data Present

Archaeological Site Information

Identification

Site Number: 36SC0057
Site Type: Open Pre-Contact Site, Unknown Function
ER #: 1992-0126-107-F

Location

Schuylkill: North Manheim Township

Subbasin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A		Little Swatara Creek

Quadrangle: Friedensburg
Soil Mapping Unit(s): SHB, WAB, AT
Site Elevation: 560
Slope Aspect: Multiple
Slope Basis: Soil Survey or Map
Average Slope: 5
Physiographic Zones: Blue Mountain Section(33)
Topographic Setting: Stream Bench
Predominant Bedrock Formation(s): Dh-Devonian Hamilton Group
DSop-Devon/Silurian Onondaga Formation thr Poxono Island Form undiv
Dtr-Devonian Trimmers Rock Formation
Relationship to Confluence: Site Upstream from Confluence and Between the 2 Water Sources

	Distance	Elevation	Direction	Order	Type
Nearest Water	30 m	560 ft	South	1	Perennial Stream
2nd Nearest Water	2160 m	520 ft	Northeast	5	Perennial Stream
Nearest Confluence	2160 m	520 ft	Northeast	5	Confluence

Status

NR Status: Unevaluated
Owner: Unknown

Administrative Actions

11/23/1993: Site Recorded

Site Characteristics

Recording Reason: State or Federal Compliance Survey
Discovery Method: Shovel Testing
Organic Preservation: Unknown
Vegetation Cover: Pasture
Stratified: Unknown

Chronology

Placement	Frequency	Basis
Pre-Contact	91% - 100%	Lithics

Features

Archaeological Site Information

Features	Count	Image
None found thus far		

Lithic Materials

Jasper: 91% - 100%

Artifacts

General Artifact Type	Material	Quantity	Image
PreC, Other, Stone Debitage	Unknown	Less than 25	

Diagnostic Artifact Type	Material	Frequency	Count	Image
Unknown	Unknown	Present		

Repository	Item
Collection Retained by Consultant	

Recovery Method: Representative Sample of All Artifacts

National Register Information

No Data Present

Attachments

No Data Present

Comments

No Data Present

Phase 2 Methods

No Data Present

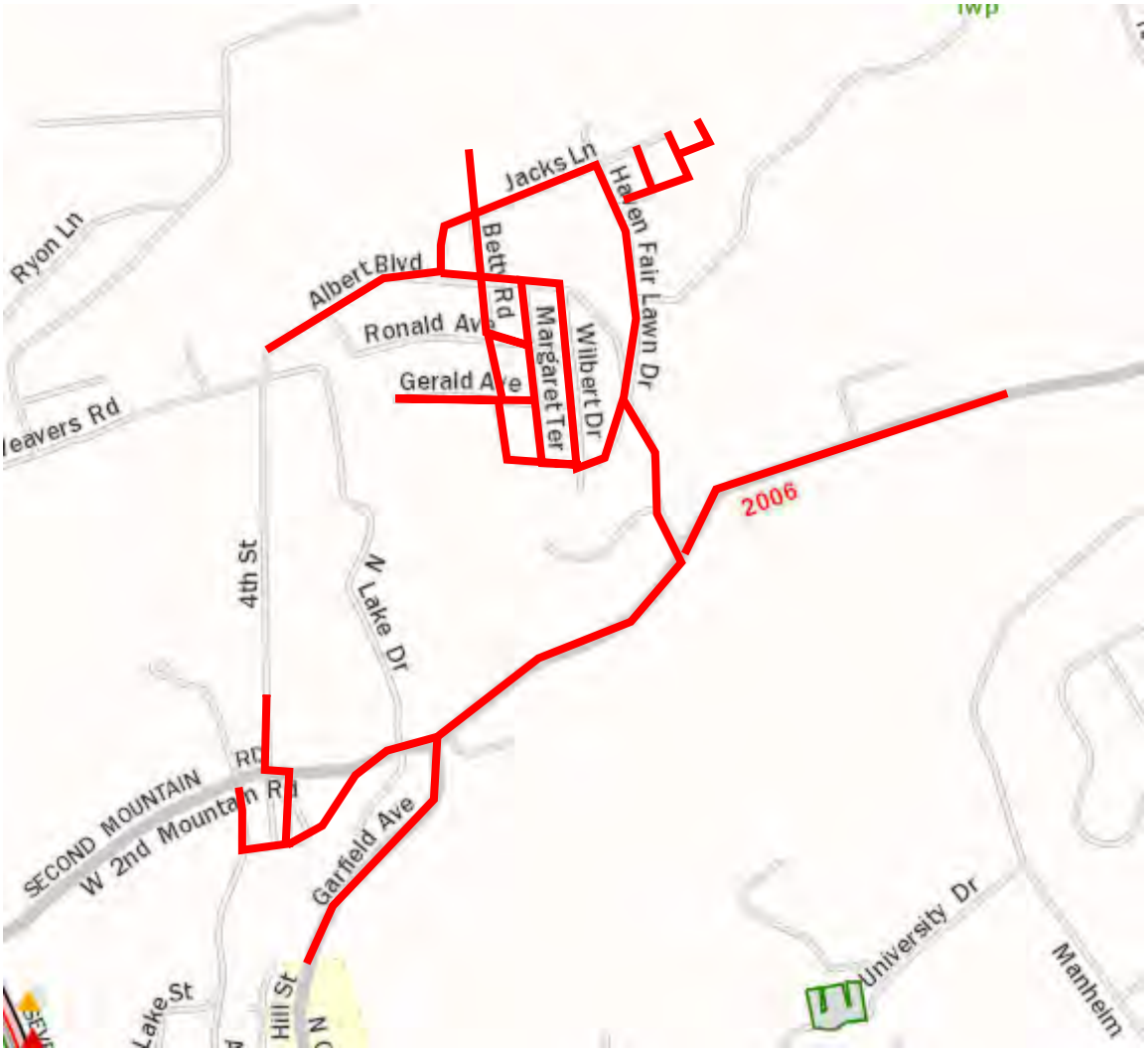
Phase 3 Methods

No Data Present

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16G

No historical sites popped up on the CRGIS search for this section. Below is a map from the CRGIS of the location (Fairlawn Road) where the sewer extension will occur.

Schuylkill Haven Basin - Extension No. 2



SCHUYLKILL COUNTY
S.R.61, SECTION O2S
AGREEMENT 05-01020
PHASE I CULTURAL RESOURCES

ABSTRACT

A Phase I cultural resources survey has been completed for a proposed road construction project in North Manheim Township, Schuylkill County, Pennsylvania. The proposed project consists of the construction of a jughandle near the intersection of Routes 61 and 443, and a connector road between Route 61 and Route 2008 near the town of Schuylkill Haven. The project has been designed to provide safe access for vehicular traffic which crosses Route 61.

The two areas which will be affected by the proposed construction lie approximately one mile apart. For the purposes of the Phase I survey, the area in which the jughandle is to be constructed near the intersection of Route 61 and Route 443 was designated as Project Area A, and the area in which the road connecting Route 61 and Route 2008 is to be constructed was designated as Project Area B.

Phase I survey consisted of background research, informant interviews, a geomorphology reconnaissance and field testing. Background research revealed that no prehistoric cultural resources were recorded in the vicinity of the project areas, and local informants knew of no prehistoric sites in either project area.

Historical background research revealed that farmsteads were recorded in both project areas on the map of North Manheim Township in the 1875 Beers Atlas of Schuylkill, Pennsylvania. Field inspection of Project Area A revealed the existence of a house foundation and the foundations of several outbuildings within the limits of the construction ROW. Field inspection of Project Area B revealed that no structures or foundations existed within the construction ROW, but that a late-nineteenth century house, barn and outbuilding were located immediately to the east. A Historic Structures Survey was performed in order to assess the significance of these structures. It was found that the structures lack architectural integrity and do not meet the criteria of eligibility for listing on the National Register of Historic Places. The results of the Historic Structures Survey are contained in a separate report.

Phase I testing was designed primarily to locate historic cultural resources. In Project Area A, 50x50 cm shovel test pits (STPs) were excavated at 6 meter intervals between the house and outbuilding foundations, in the area which was most likely to contain historic materials. STPS were placed at 15 meter intervals

throughout the remainder of the project area. STPs were also excavated at 15 meter intervals in Project Area B.

Only fragmentary modern debris was encountered in Project Area A. No prehistoric or historic materials were recovered either in Project Area A or Project Area B. Because no potentially significant structures, features or artifacts were encountered during Phase I survey, the proposed construction project will not affect cultural resources eligible for listing in the National Register of Historic Places. No further archaeological testing of either project area is recommended.

Bridge Resource Information

Identification

Key #: 137955
Bridge Key: 30527
BMS#: 53006102000351
Resource Type: Structure

Location

Schuylkill County: North Manheim Township
Address: SR 61 ,
Location: Sr 61/lr 141; 2 Miles South Of Sch Haven Boro
UTM: Zone 18 E 404171 N 4499756

General Characteristics

Predominant Material: Concrete
 # Spans: 1
Overall Length: 23

Spans

Span	Type	Survey Type	Material	Design	Length	Features
Main		T Beam		Simple		

Substructure

Material	Feature	Configuration

Status

NR Status: SHPO: Not Eligible
Owner: Unknown
Condition: Unreported

Historic Information

Year Built: 1937

Historic Function

Function	Sub Function	Particular Use
Transportation	Road-Related (Vehicular)	
Transportation		Bridge

Current Function

No Data Present

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources **No Data Present**

Bridge Resource Information

Administrative Actions

03/05/2007: SHPO: Not Eligible
08/13/2004: Date Record Added

National Register Information **No Data Present**

Attachments **No Data Present**

Comments **No Data Present**

Historic Resource Information

Identification

Key #: 110776
Resource Type: Building
Approximate # of Resources: 1

Location

Schuylkill County: North Manheim Township
Address: 1057 W Market St. ,
USGS Quadrangle: Pottsville
Tax Parcel: 18-7-45, 19981221

Status

NR Status: Unevaluated
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1835

Physical Description

Style: Early Republic
Walls: Stone; Vinyl
Foundation: Stone
Roof: Shingle
Other: Wood
Structural System: Timber-Post and Beam

Historic Function

Function	Sub Function	Particular Use
Domestic	Single Dwelling	

Current Function

Function	Sub Function	Particular Use
Domestic	Single Dwelling	

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources

No Data Present

Administrative Actions

12/29/1998: SHPO Staff Meeting
12/21/1998: Date Record Added

Historic Resource Information

12/21/1998: Date Record Updated
12/15/1998: HRSF/Nom. Req. Received

National Register Information — **No Data Present**

Attachments

Attachment	Name
Form	H110776_108490_D.pdf

Comments — **No Data Present**

Outbuildings — **No Data Present**

Observations — **No Data Present**

Historic Resource Information

Identification

Key #: 156109
Property Name: Lehigh Valley Railroad (aggregate file)
Resource Type: District
Approximate # of Resources: 1

Location

Luzerne County: Hazle Township
Bradford County: Ulster Township
Sullivan County: Colley Township
Luzerne County: Duryea Borough
Luzerne County: Yatesville Borough
Luzerne County: Newport Township
Luzerne County: Dennison Township
Luzerne County: Penn Lake Park Borough
Schuylkill County: Rush Township
Northumberland County: Mount Carmel Borough
Carbon County: Jim Thorpe Borough
Carbon County: Lehighton Borough
Schuylkill County: East Brunswick Township
Lehigh County: Whitehall Township
Lehigh County: Allentown City
Lehigh County: Fountain Hill Borough
Northampton County: Bethlehem City
Northampton County: Lower Saucon Township
Susquehanna County: Montrose Borough
Bradford County: Wyalusing Borough
Luzerne County: Exeter Borough
Wyoming County: Tunkhannock Township
Luzerne County: Pittston City
Luzerne County: Laurel Run Borough
Luzerne County: Wilkes-Barre City
Luzerne County: Fairview Township
Carbon County: Kidder Township
Schuylkill County: West Mahanoy Township
Carbon County: East Penn Township
Susquehanna County: Dimock Township
Susquehanna County: Bridgewater Township
Northampton County: Glendon Borough
Carbon County: Packer Township
Northampton County: Forks Township
Bradford County: Athens Township
Bradford County: Tuscarora Township
Sullivan County: Cherry Township
Luzerne County: Fairmount Township
Luzerne County: Kingston Township
Luzerne County: Pittston Township
Luzerne County: Plains Township
Luzerne County: Ashley Borough
Luzerne County: Wright Township

Historic Resource Information

Schuylkill County:	East Union Township
Northampton County:	West Easton Borough
Northampton County:	Palmer Township
Northampton County:	Tatamy Borough
Northampton County:	Stockertown Borough
Bradford County:	Sayre Borough
Bradford County:	Wysox Township
Sullivan County:	Dushore Borough
Luzerne County:	Lake Township
Wyoming County:	Noxen Township
Luzerne County:	Jenkins Township
Luzerne County:	Forty Fort Borough
Luzerne County:	Dupont Borough
Luzerne County:	Laflin Borough
Luzerne County:	Sugar Notch Borough
Luzerne County:	Bear Creek Village Borough
Schuylkill County:	Shenandoah Borough
Schuylkill County:	Union Township
Northumberland County:	Mount Carmel Township
Schuylkill County:	West Brunswick Township
Schuylkill County:	North Manheim Township
Lehigh County:	Slatington Borough
Luzerne County:	West Hazleton Borough
Luzerne County:	Sugarloaf Township
Bradford County:	Towanda Borough
Bradford County:	Towanda Township
Bradford County:	Monroe Township
Bradford County:	Monroe Borough
Bradford County:	Wyalusing Township
Bradford County:	Wilmot Township
Luzerne County:	Ross Township
Luzerne County:	Dallas Borough
Luzerne County:	West Wyoming Borough
Lackawanna County:	Newton Township
Wyoming County:	Tunkhannock Borough
Wyoming County:	Meshoppen Township
Wyoming County:	Braintrim Township
Luzerne County:	Bear Creek Township
Luzerne County:	White Haven Borough
Luzerne County:	Foster Township
Schuylkill County:	Delano Township
Columbia County:	Conyngham Township
Columbia County:	Centralia Borough
Schuylkill County:	Schuylkill Haven Borough
Lehigh County:	North Whitehall Township
Northampton County:	Easton City
Carbon County:	Banks Township
Bradford County:	North Towanda Township
Bradford County:	Standing Stone Township
Luzerne County:	Luzerne Borough
Luzerne County:	Swoyersville Borough
Carbon County:	Penn Forest Township
Luzerne County:	Jeddo Borough
Schuylkill County:	Mahanoy Township

Historic Resource Information

Carbon County:	Mahoning Township
Schuylkill County:	West Penn Township
Schuylkill County:	Orwigsburg Borough
Lehigh County:	Washington Township
Lehigh County:	Salisbury Township
Multi-County County:	Multi-Municips
Wyoming County:	Lemon Township
Northampton County:	Williams Township
Luzerne County:	Hazleton City
Northampton County:	Wilson Borough
Bradford County:	Athens Borough
Bradford County:	New Albany Borough
Luzerne County:	Harveys Lake Borough
Luzerne County:	Dallas Township
Wyoming County:	Falls Township
Wyoming County:	Washington Township
Wyoming County:	Meshoppen Borough
Luzerne County:	Hanover Township
Luzerne County:	Warrior Run Borough
Carbon County:	Lehigh Township
Carbon County:	Lausanne Township
Schuylkill County:	Kline Township
Susquehanna County:	Springville Township
Bradford County:	Albany Township
Wyoming County:	Forkston Township
Lackawanna County:	Ransom Township
Wyoming County:	Laceyville Borough
Luzerne County:	Avoca Borough
Carbon County:	Weatherly Borough
Lehigh County:	Coplay Borough
Location:	Lehigh Valley
USGS Quadrangle:	Allentown East - Ashland - Avoca - Catasauqua - Cementon - Center Moreland - Christmans - Conyngham - Delano - Dushore - Dutch Mountain - Easton (NJ) - Harveys Lake - Hazleton - Hellertown - Hickory Run - Jenningsville - Kingston - Laceyville - Laporte - Lehighton - Litchfield - Lopez - Meshoppen - Monroeton - Montrose East - Montrose West - Mount Carmel - Nanticoke - Nazareth - Nesquehoning - New Ringgold - New Tripoli - Noxen - Nuremberg - Orwigsburg - Palmerton - Pittston - Pleasant View Summit - Pottsville - Ransom - Red Rock - Rome - Sayre - Shenandoah - Slatedale - Springville - Sweet Valley - Tamaqua - Towanda - Tunkhannock - Ulster - Weatherly - White Haven - Wilkes-Barre East - Wilkes-Barre West - Wind Gap - Wyalusing - Barton (NY)

Status

NR Status:	Aggregate File (see comments)
Contributes:	Undetermined
Owner:	Unknown
Condition:	Unreported

Historic Information

No Data Present

Physical Description

No Data Present

Historic Function

Historic Resource Information

Function	Sub Function	Particular Use
Transportation	Rail-Related	

Current Function — No Data Present

Inventory Items — No Data Present

Ancillary Features — No Data Present

Associated Resources

Resource	Name	Association
078945	Lehigh Valley Railroad: Station (Sayre)	Historically Associated
083616	Lehigh Valley Railroad: Station	Historically Associated
086386	Lehigh Valley Railroad: Station (Bethlehem); Union Station	Historically Associated
086598	Lehigh Valley Railroad Headquarters Building; Lehigh Valley Railroad: Headquarters Building	Historically Associated
086698	Central Railroad of New Jersey: Car Shops	Historically Associated
097296	Packerton Railroad Repair Shops; Lehigh Valley Railroad: Shops	Historically Associated
103133	Lehigh Valley Railroad: State Line & Sullivan Branch (Towanda)	Historically Associated
104201	Lehigh Valley Railroad: Freight Depot	Historically Associated
104214	Lehigh Valley Railroad: Bridge (MP 178.27); Bridge 178.C	Historically Associated
104215	Lehigh Valley Railroad: Bridge; Bridge 178.22	Historically Associated
110630	Lehigh Valley Railroad: Depot	Historically Associated
111770	Lehigh Valley & Pennsylvania Railroad: Depot	Historically Associated
112381	Lehigh Valley Railroad (Allentown to Wilkes-Barre); Reading Railroad: Lehigh Line (Allentown Wilkes-Barre)	Historically Associated
116317	Lehigh Valley Railroad (Allentown to Whitehall Twp)	Historically Associated
119251	Lehigh Valley Railroad (Wilkes-Barre)	Historically Associated
126161	Lehigh Valley Railroad: Engine House; White Haven Engine House	Historically Associated
143075	Lehigh Valley Railroad (Jim Thorpe Section)	Historically Associated
143091	Lehigh Valley Railroad: Steel Mill	Historically Associated
155914	Lehigh Valley Railroad (Whitehall Twp. segment)	Historically Associated
156349	Lehigh Valley Railroad (Duryea to Ransom Twp. segment); Reading & Northern Railroad: Susquehanna Branch (Duryea to Ransom Twp. segment); Reading Blue Mountain & Northern (Duryea to Ransom Twp. segment)	Historically Associated
156350	Lehigh Valley Railroad: Bridge over Gardner Creek	Historically Associated
156351	Lehigh Valley Railroad: Bridge over unnamed stream	Historically Associated
211048	Hometown Bridge; High Bridge	Default

Administrative Actions

Historic Resource Information

11/12/2019: Date Record Updated
11/12/2019: Date Record Updated
06/22/2010: Aggregate File Created

National Register Information

No Data Present

Attachments

Attachment	Name
Railroad Lineage	H156109_01R.pdf

Report	Title
2016-1936-079-C	Harwood-East Hazelton 2 Line Rebuild Project (Phase 8) Above-Ground Resource Identification Study
2009-0592-042-T	Susquehanna to Roseland 500 kV Transmission Project, Preliminary Survey of Historic Architecture, Lackawanna County, Vol. I
2001-0382-015-D	Field Reconnaissance Historic Architectural Resources Survey, Monroe Borough Flood Protection Project, Monroe Borough and Monroe Township Bradford County
2003-1495-025-E	Determ. of Effect Report, Lehigh Rover and Pohopoco Creek Bridges Proj.NB-525 and NB-526, Paryville Borough,Franklin, Lower Towamensing, Mahoning, E.Penn Twps, Carbon Co,PA
2009-0592-042-X	PUC: Historic Architecture Evaluation & Effects, Luzerne Co., Susquehanna to Roseland 500kV Transmission Project, Lackawanna, Luzerne, Monroe, Pike, and Wayne Counties
2016-1937-079-C	Harwood-Valmont 69kV Line & Taps (Phase 5) Hazle Township Luzerne county PA Above Ground Resource Identification Study
2013-2072-115-B	Above-ground Resource Evaluation, Strickland Pipeline Project, Dimock Twp., Susquehanna County
2016-0149-079-A	Phase I Cultural Resources Report, PPL Humboldt Transmission Line Project, Hazle Township, Luzerne County

Comments

A BRIEF railroad lineage has been created from various sources. It is NOT definitive, but can help begin to understand the history of the line.

Key #s of any PREVIOUSLY SURVEYED components will appear in the “Associated Resources” section above.

TIP: Entire resource maps quicker if only Counties and Municipalities layers are selected. Add layers as you zoom in.

The railroad lineage file can be found in the “Links” section above.

This AGGREGATE FILE does NOT represent a historic resource survey, and will NOT have a determination of eligibility.

This AGGREGATE FILE illustrates the historic path of the railroad line based on research, but is in NO way definitive.

This AGGREGATE FILE is a means of collecting and displaying previously surveyed components(“associated resources”) of a particular railroad line.

Outbuildings

No Data Present

Observations

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1989-1646-107-C
Title: PhI Cultural Res. Survey,S.R. 61, Section 02S Agreement 05-01020, Schuylkill County,Pennsylvania
Author: K.Beckman
Organization: Skelly and Loy
Date: 3/1/1990
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 47

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	1.9	0	Systematic Shovel Testing
Phase I	1.9	0	Systematic Shovel Testing

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	None given

Resources Reported

No Data Present

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

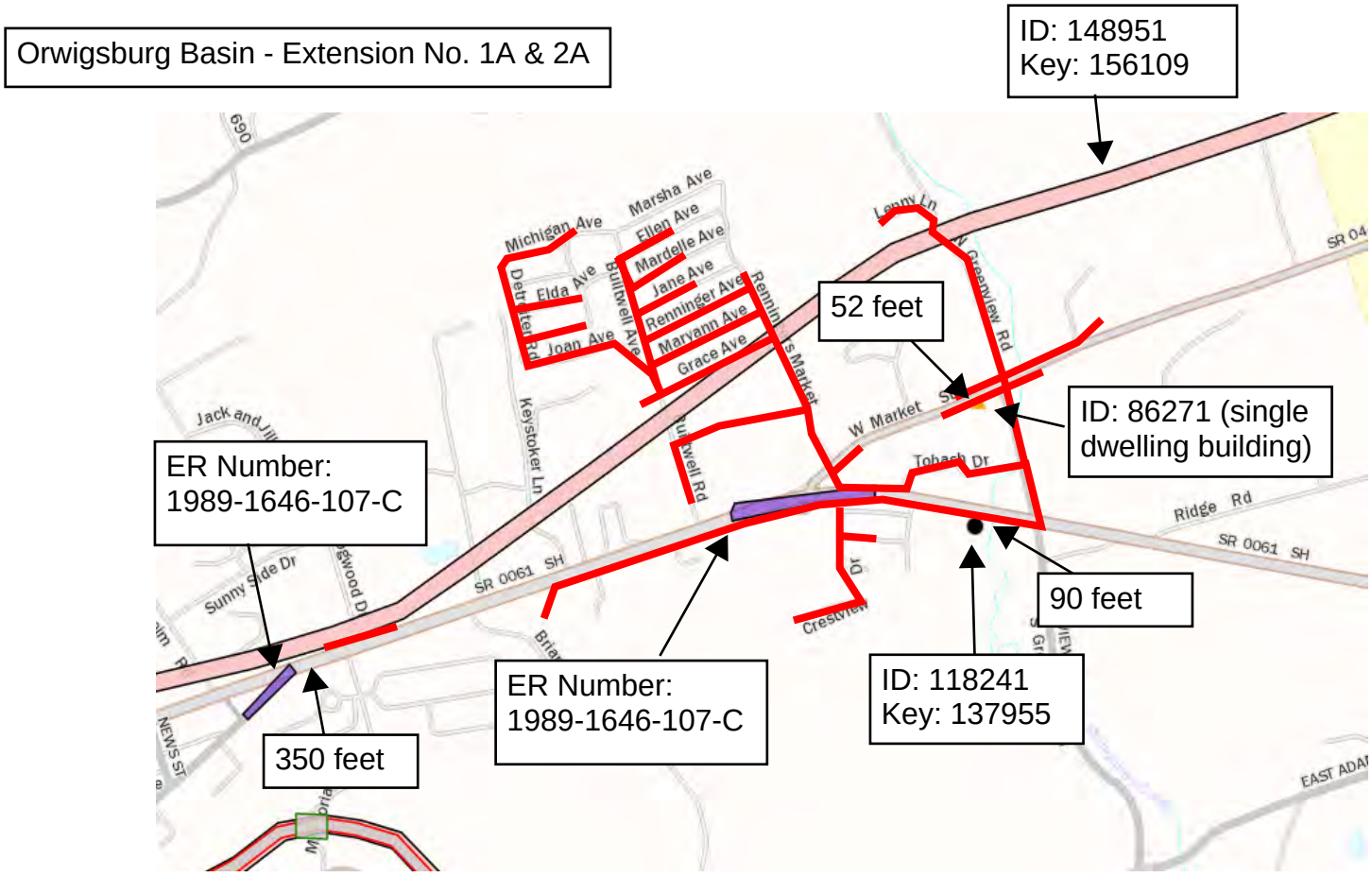
Type	Name
Abstract	19891646107C.PDF

Comments

No Data Present

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16H

Below is a map from the CRGIS pf the location (Renninger's to Schuylkill Haven) where the sewer extension will occur. Attached is one cultural resources survey, Lehigh Valley Railroad files, and a report for a building structure along Market Street.



Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1989-1646-107-C
Title: PhI Cultural Res. Survey,S.R. 61, Section 02S Agreement 05-01020, Schuylkill County,Pennsylvania
Author: K.Beckman
Organization: Skelly and Loy
Date: 3/1/1990
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 47

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	1.9	0	Systematic Shovel Testing
Phase I	1.9	0	Systematic Shovel Testing

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	None given

Resources Reported

No Data Present

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

Type	Name
Abstract	19891646107C.PDF

Comments

No Data Present

SCHUYLKILL COUNTY
S.R.61, SECTION O2S
AGREEMENT 05-01020
PHASE I CULTURAL RESOURCES

ABSTRACT

A Phase I cultural resources survey has been completed for a proposed road construction project in North Manheim Township, Schuylkill County, Pennsylvania. The proposed project consists of the construction of a jughandle near the intersection of Routes 61 and 443, and a connector road between Route 61 and Route 2008 near the town of Schuylkill Haven. The project has been designed to provide safe access for vehicular traffic which crosses Route 61.

The two areas which will be affected by the proposed construction lie approximately one mile apart. For the purposes of the Phase I survey, the area in which the jughandle is to be constructed near the intersection of Route 61 and Route 443 was designated as Project Area A, and the area in which the road connecting Route 61 and Route 2008 is to be constructed was designated as Project Area B.

Phase I survey consisted of background research, informant interviews, a geomorphology reconnaissance and field testing. Background research revealed that no prehistoric cultural resources were recorded in the vicinity of the project areas, and local informants knew of no prehistoric sites in either project area.

Historical background research revealed that farmsteads were recorded in both project areas on the map of North Manheim Township in the 1875 Beers Atlas of Schuylkill, Pennsylvania. Field inspection of Project Area A revealed the existence of a house foundation and the foundations of several outbuildings within the limits of the construction ROW. Field inspection of Project Area B revealed that no structures or foundations existed within the construction ROW, but that a late-nineteenth century house, barn and outbuilding were located immediately to the east. A Historic Structures Survey was performed in order to assess the significance of these structures. It was found that the structures lack architectural integrity and do not meet the criteria of eligibility for listing on the National Register of Historic Places. The results of the Historic Structures Survey are contained in a separate report.

Phase I testing was designed primarily to locate historic cultural resources. In Project Area A, 50x50 cm shovel test pits (STPs) were excavated at 6 meter intervals between the house and outbuilding foundations, in the area which was most likely to contain historic materials. STPS were placed at 15 meter intervals

throughout the remainder of the project area. STPs were also excavated at 15 meter intervals in Project Area B.

Only fragmentary modern debris was encountered in Project Area A. No prehistoric or historic materials were recovered either in Project Area A or Project Area B. Because no potentially significant structures, features or artifacts were encountered during Phase I survey, the proposed construction project will not affect cultural resources eligible for listing in the National Register of Historic Places. No further archaeological testing of either project area is recommended.

Historic Resource Information

Identification

Key #: 156109
Property Name: Lehigh Valley Railroad (aggregate file)
Resource Type: District
Approximate # of Resources: 1

Location

Luzerne County: Hazle Township
Bradford County: Ulster Township
Sullivan County: Colley Township
Luzerne County: Duryea Borough
Luzerne County: Yatesville Borough
Luzerne County: Newport Township
Luzerne County: Dennison Township
Luzerne County: Penn Lake Park Borough
Schuylkill County: Rush Township
Northumberland County: Mount Carmel Borough
Carbon County: Jim Thorpe Borough
Carbon County: Lehighton Borough
Schuylkill County: East Brunswick Township
Lehigh County: Whitehall Township
Lehigh County: Allentown City
Lehigh County: Fountain Hill Borough
Northampton County: Bethlehem City
Northampton County: Lower Saucon Township
Susquehanna County: Montrose Borough
Bradford County: Wyalusing Borough
Luzerne County: Exeter Borough
Wyoming County: Tunkhannock Township
Luzerne County: Pittston City
Luzerne County: Laurel Run Borough
Luzerne County: Wilkes-Barre City
Luzerne County: Fairview Township
Carbon County: Kidder Township
Schuylkill County: West Mahanoy Township
Carbon County: East Penn Township
Susquehanna County: Dimock Township
Susquehanna County: Bridgewater Township
Northampton County: Glendon Borough
Carbon County: Packer Township
Northampton County: Forks Township
Bradford County: Athens Township
Bradford County: Tuscarora Township
Sullivan County: Cherry Township
Luzerne County: Fairmount Township
Luzerne County: Kingston Township
Luzerne County: Pittston Township
Luzerne County: Plains Township
Luzerne County: Ashley Borough
Luzerne County: Wright Township

Historic Resource Information

Schuylkill County:	East Union Township
Northampton County:	West Easton Borough
Northampton County:	Palmer Township
Northampton County:	Tatamy Borough
Northampton County:	Stockertown Borough
Bradford County:	Sayre Borough
Bradford County:	Wysox Township
Sullivan County:	Dushore Borough
Luzerne County:	Lake Township
Wyoming County:	Noxen Township
Luzerne County:	Jenkins Township
Luzerne County:	Forty Fort Borough
Luzerne County:	Dupont Borough
Luzerne County:	Laflin Borough
Luzerne County:	Sugar Notch Borough
Luzerne County:	Bear Creek Village Borough
Schuylkill County:	Shenandoah Borough
Schuylkill County:	Union Township
Northumberland County:	Mount Carmel Township
Schuylkill County:	West Brunswick Township
Schuylkill County:	North Manheim Township
Lehigh County:	Slatington Borough
Luzerne County:	West Hazleton Borough
Luzerne County:	Sugarloaf Township
Bradford County:	Towanda Borough
Bradford County:	Towanda Township
Bradford County:	Monroe Township
Bradford County:	Monroe Borough
Bradford County:	Wyalusing Township
Bradford County:	Wilmot Township
Luzerne County:	Ross Township
Luzerne County:	Dallas Borough
Luzerne County:	West Wyoming Borough
Lackawanna County:	Newton Township
Wyoming County:	Tunkhannock Borough
Wyoming County:	Meshoppen Township
Wyoming County:	Braintrim Township
Luzerne County:	Bear Creek Township
Luzerne County:	White Haven Borough
Luzerne County:	Foster Township
Schuylkill County:	Delano Township
Columbia County:	Conyngham Township
Columbia County:	Centralia Borough
Schuylkill County:	Schuylkill Haven Borough
Lehigh County:	North Whitehall Township
Northampton County:	Easton City
Carbon County:	Banks Township
Bradford County:	North Towanda Township
Bradford County:	Standing Stone Township
Luzerne County:	Luzerne Borough
Luzerne County:	Swoyersville Borough
Carbon County:	Penn Forest Township
Luzerne County:	Jeddo Borough
Schuylkill County:	Mahanoy Township

Historic Resource Information

Carbon County:	Mahoning Township
Schuylkill County:	West Penn Township
Schuylkill County:	Orwigsburg Borough
Lehigh County:	Washington Township
Lehigh County:	Salisbury Township
Multi-County County:	Multi-Municips
Wyoming County:	Lemon Township
Northampton County:	Williams Township
Luzerne County:	Hazleton City
Northampton County:	Wilson Borough
Bradford County:	Athens Borough
Bradford County:	New Albany Borough
Luzerne County:	Harveys Lake Borough
Luzerne County:	Dallas Township
Wyoming County:	Falls Township
Wyoming County:	Washington Township
Wyoming County:	Meshoppen Borough
Luzerne County:	Hanover Township
Luzerne County:	Warrior Run Borough
Carbon County:	Lehigh Township
Carbon County:	Lausanne Township
Schuylkill County:	Kline Township
Susquehanna County:	Springville Township
Bradford County:	Albany Township
Wyoming County:	Forkston Township
Lackawanna County:	Ransom Township
Wyoming County:	Laceyville Borough
Luzerne County:	Avoca Borough
Carbon County:	Weatherly Borough
Lehigh County:	Coplay Borough
Location:	Lehigh Valley
USGS Quadrangle:	Allentown East - Ashland - Avoca - Catasauqua - Cementon - Center Moreland - Christmans - Conyngham - Delano - Dushore - Dutch Mountain - Easton (NJ) - Harveys Lake - Hazleton - Hellertown - Hickory Run - Jenningsville - Kingston - Laceyville - Laporte - Lehighton - Litchfield - Lopez - Meshoppen - Monroeton - Montrose East - Montrose West - Mount Carmel - Nanticoke - Nazareth - Nesquehoning - New Ringgold - New Tripoli - Noxen - Nuremberg - Orwigsburg - Palmerton - Pittston - Pleasant View Summit - Pottsville - Ransom - Red Rock - Rome - Sayre - Shenandoah - Slatedale - Springville - Sweet Valley - Tamaqua - Towanda - Tunkhannock - Ulster - Weatherly - White Haven - Wilkes-Barre East - Wilkes-Barre West - Wind Gap - Wyalusing - Barton (NY)

Status

NR Status:	Aggregate File (see comments)
Contributes:	Undetermined
Owner:	Unknown
Condition:	Unreported

Historic Information

No Data Present

Physical Description

No Data Present

Historic Function

Historic Resource Information

Function	Sub Function	Particular Use
Transportation	Rail-Related	

Current Function — No Data Present

Inventory Items — No Data Present

Ancillary Features — No Data Present

Associated Resources

Resource	Name	Association
078945	Lehigh Valley Railroad: Station (Sayre)	Historically Associated
083616	Lehigh Valley Railroad: Station	Historically Associated
086386	Lehigh Valley Railroad: Station (Bethlehem); Union Station	Historically Associated
086598	Lehigh Valley Railroad Headquarters Building; Lehigh Valley Railroad: Headquarters Building	Historically Associated
086698	Central Railroad of New Jersey: Car Shops	Historically Associated
097296	Packerton Railroad Repair Shops; Lehigh Valley Railroad: Shops	Historically Associated
103133	Lehigh Valley Railroad: State Line & Sullivan Branch (Towanda)	Historically Associated
104201	Lehigh Valley Railroad: Freight Depot	Historically Associated
104214	Lehigh Valley Railroad: Bridge (MP 178.27); Bridge 178.C	Historically Associated
104215	Lehigh Valley Railroad: Bridge; Bridge 178.22	Historically Associated
110630	Lehigh Valley Railroad: Depot	Historically Associated
111770	Lehigh Valley & Pennsylvania Railroad: Depot	Historically Associated
112381	Lehigh Valley Railroad (Allentown to Wilkes-Barre); Reading Railroad: Lehigh Line (Allentown Wilkes-Barre)	Historically Associated
116317	Lehigh Valley Railroad (Allentown to Whitehall Twp)	Historically Associated
119251	Lehigh Valley Railroad (Wilkes-Barre)	Historically Associated
126161	Lehigh Valley Railroad: Engine House; White Haven Engine House	Historically Associated
143075	Lehigh Valley Railroad (Jim Thorpe Section)	Historically Associated
143091	Lehigh Valley Railroad: Steel Mill	Historically Associated
155914	Lehigh Valley Railroad (Whitehall Twp. segment)	Historically Associated
156349	Lehigh Valley Railroad (Duryea to Ransom Twp. segment); Reading & Northern Railroad: Susquehanna Branch (Duryea to Ransom Twp. segment); Reading Blue Mountain & Northern (Duryea to Ransom Twp. segment)	Historically Associated
156350	Lehigh Valley Railroad: Bridge over Gardner Creek	Historically Associated
156351	Lehigh Valley Railroad: Bridge over unnamed stream	Historically Associated
211048	Hometown Bridge; High Bridge	Default

Administrative Actions

Historic Resource Information

11/12/2019: Date Record Updated
11/12/2019: Date Record Updated
06/22/2010: Aggregate File Created

National Register Information

No Data Present

Attachments

Attachment	Name
Railroad Lineage	H156109_01R.pdf

Report	Title
2016-1936-079-C	Harwood-East Hazelton 2 Line Rebuild Project (Phase 8) Above-Ground Resource Identification Study
2009-0592-042-T	Susquehanna to Roseland 500 kV Transmission Project, Preliminary Survey of Historic Architecture, Lackawanna County, Vol. I
2001-0382-015-D	Field Reconnaissance Historic Architectural Resources Survey, Monroe Borough Flood Protection Project, Monroe Borough and Monroe Township Bradford County
2003-1495-025-E	Determ. of Effect Report, Lehigh Rover and Pohopoco Creek Bridges Proj.NB-525 and NB-526, Paryville Borough,Franklin, Lower Towamensing, Mahoning, E.Penn Twps, Carbon Co,PA
2009-0592-042-X	PUC: Historic Architecture Evaluation & Effects, Luzerne Co., Susquehanna to Roseland 500kV Transmission Project, Lackawanna, Luzerne, Monroe, Pike, and Wayne Counties
2016-1937-079-C	Harwood-Valmont 69kV Line & Taps (Phase 5) Hazle Township Luzerne county PA Above Ground Resource Identification Study
2013-2072-115-B	Above-ground Resource Evaluation, Strickland Pipeline Project, Dimock Twp., Susquehanna County
2016-0149-079-A	Phase I Cultural Resources Report, PPL Humboldt Transmission Line Project, Hazle Township, Luzerne County

Comments

A BRIEF railroad lineage has been created from various sources. It is NOT definitive, but can help begin to understand the history of the line.

Key #s of any PREVIOUSLY SURVEYED components will appear in the “Associated Resources” section above.

TIP: Entire resource maps quicker if only Counties and Municipalities layers are selected. Add layers as you zoom in.

The railroad lineage file can be found in the “Links” section above.

This AGGREGATE FILE does NOT represent a historic resource survey, and will NOT have a determination of eligibility.

This AGGREGATE FILE illustrates the historic path of the railroad line based on research, but is in NO way definitive.

This AGGREGATE FILE is a means of collecting and displaying previously surveyed components(“associated resources”) of a particular railroad line.

Outbuildings

No Data Present

Observations

No Data Present

Historic Resource Information

Identification

Key #: 110776
Resource Type: Building
Approximate # of Resources: 1

Location

Schuylkill County: North Manheim Township
Address: 1057 W Market St. ,
USGS Quadrangle: Pottsville
Tax Parcel: 18-7-45, 19981221

Status

NR Status: Unevaluated
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1835

Physical Description

Style: Early Republic
Walls: Stone; Vinyl
Foundation: Stone
Roof: Shingle
Other: Wood
Structural System: Timber-Post and Beam

Historic Function

Function	Sub Function	Particular Use
Domestic	Single Dwelling	

Current Function

Function	Sub Function	Particular Use
Domestic	Single Dwelling	

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources

No Data Present

Administrative Actions

12/29/1998: SHPO Staff Meeting
12/21/1998: Date Record Added

Historic Resource Information

12/21/1998: Date Record Updated
12/15/1998: HRSF/Nom. Req. Received

National Register Information — **No Data Present**

Attachments

Attachment	Name
Form	H110776_108490_D.pdf

Comments — **No Data Present**

Outbuildings — **No Data Present**

Observations — **No Data Present**

Bridge Resource Information

Identification

Key #: 137955
Bridge Key: 30527
BMS#: 53006102000351
Resource Type: Structure

Location

Schuylkill County: North Manheim Township
Address: SR 61 ,
Location: Sr 61/lr 141; 2 Miles South Of Sch Haven Boro
UTM: Zone 18 E 404171 N 4499756

General Characteristics

Predominant Material: Concrete
 # Spans: 1
Overall Length: 23

Spans

Span	Type	Survey Type	Material	Design	Length	Features
Main		T Beam		Simple		

Substructure

Material	Feature	Configuration

Status

NR Status: SHPO: Not Eligible
Owner: Unknown
Condition: Unreported

Historic Information

Year Built: 1937

Historic Function

Function	Sub Function	Particular Use
Transportation	Road-Related (Vehicular)	
Transportation		Bridge

Current Function

No Data Present

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources **No Data Present**

Bridge Resource Information

Administrative Actions

03/05/2007: SHPO: Not Eligible
08/13/2004: Date Record Added

National Register Information **No Data Present**

Attachments **No Data Present**

Comments **No Data Present**

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2016-1458-042-G
Title: Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County
Author: Grandine, K
Organization: R Christopher Goodwin & Associates
Date: 1/13/2017
Agency: FERC
Agency Type: Federal Agency
No. of Pages: 20

Location

County	Municipality
Lancaster	Drumore Township
Lancaster	Eden Township
Multi-County	Multi-Municips
Chester	East Whiteland Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Historic Geographic Survey		12	

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

No Data Present

Resources Reported

ID Number	Name
101916	Chester Valley Running Track (Downingtown to Cedar Hollow); Philadelphia & Reading Railroad: Chester Valley Branch (Downingtown to Cedar Hollow)
098216	Ebenezer African Methodist Episcopal Church
098238	Jacob Brothers Farm
098251	Jacobs, Joseph B., House
098217	Lewis, Samuel Jr., House
098259	Malin, John & James, House
155997	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)
098226	Reitenbaugh, Adam, House
083403	Reittenbaugh, Adam, Barn No. 2
098248	Smith, Benjamin F., House

4098200	Zbek Timble Robertson Complex

Archaeological and Historical Survey Report Information

Physiographic Zone **No Data Present**

Attachments

Type	Name
Report	20161458042H_3.pdf
Report	20161458042G_3.pdf
Report	20161458042N_3.pdf
Report	20161458042L_3.pdf

Comments **No Data Present**

Historic Resource Information

Identification

Key #: 155997
Property Name: Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
Resource Type: District
Approximate # of Resources: 1
ER #: 2010-9001-091

Location

Berks County: Amity Township
Berks County: Muhlenberg Township
Chester County: East Pikeland Township
Montgomery County: Lower Pottsgrove Township
Berks County: Leesport Borough
Chester County: East Vincent Township
Montgomery County: West Pottsgrove Township
Schuylkill County: Mahanoy Township
Schuylkill County: South Manheim Township
Berks County: Hamburg Borough
Chester County: East Coventry Township
Montgomery County: Pottstown Borough
Montgomery County: Upper Providence Township
Schuylkill County: North Manheim Township
Schuylkill County: Palo Alto Borough
Schuylkill County: Port Carbon Borough
Berks County: Exeter Township
Berks County: Perry Township
Berks County: Reading City
Chester County: Phoenixville Borough
Montgomery County: Whitemarsh Township
Schuylkill County: Blythe Township
Schuylkill County: East Norwegian Township
Schuylkill County: Ryan Township
Berks County: Douglass Township
Montgomery County: Lower Providence Township
Schuylkill County: Landingville Borough
Schuylkill County: New Castle Township
Schuylkill County: St. Clair Borough
Schuylkill County: West Brunswick Township
Multi-County County: Multi-Municips
Berks County: Ontelaunee Township
Berks County: Tilden Township
Chester County: Spring City Borough
Montgomery County: Lower Merion Township
Montgomery County: Norristown Borough
Philadelphia County: Philadelphia City
Berks County: Cumru Township
Berks County: Lower Alsace Township
Berks County: Shoemakersville Borough
Montgomery County: West Norriton Township

Historic Resource Information

Montgomery County: Conshohocken Borough
Montgomery County: Plymouth Township
Schuylkill County: Schuylkill Haven Borough

Status

NR Status: SHPO: Not Eligible
Contributes: Undetermined
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1882, circa 1887

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad

Current Function

Function	Sub Function	Particular Use
Recreation and Culture	Outdoor Recreation	
Transportation	Rail-Related	
Vacant/Not in use		

Inventory Items

Report	Name
View	Pennsylvania Railroad: Schuylkill River Bridge (Reading)
View	Pennsylvania Railroad: Schuylkill River Bridge; Schuylkill River Trail: Schuylkill River Bridge
View	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction): Bridge

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
101699	Pennsylvania Railroad: Schuylkill Valley Division: overpass	Historically Associated
102978	Pennsylvania Railroad: Schuylkill Division (Muhlenberg Twp. to Hamburg) ; Blue Mountain & Reading Railroad (Leesport to Shoemakersville); Pennsylvania Schuykill Valley Railroad (Muhlenberg Twp. to Hamburg)	Historically Associated
118971	Pennsylvania Railroad: Schuylkill Valley Division (Phoenixville)	Historic District
121779	Pennsylvania Railroad: Schuylkill Valley Division: Bridge (Oaks)	Historically Associated
136713	Montgomery Ave. bridge over SEPTA	Historically Associated
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Historic Resource Information

Administrative Actions

12/27/2017: Date Record Updated
01/28/2010: SHPO: Not Eligible
01/25/2010: HRSF/DOE Received
12/23/2009: SHPO Site Visit

National Register Information

No Data Present

Attachments

Attachment	Name
Form	H155997_134641_D.pdf

Report	Title
2016-1458-042-G	Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County

Comments

No Data Present

Outbuildings

No Data Present

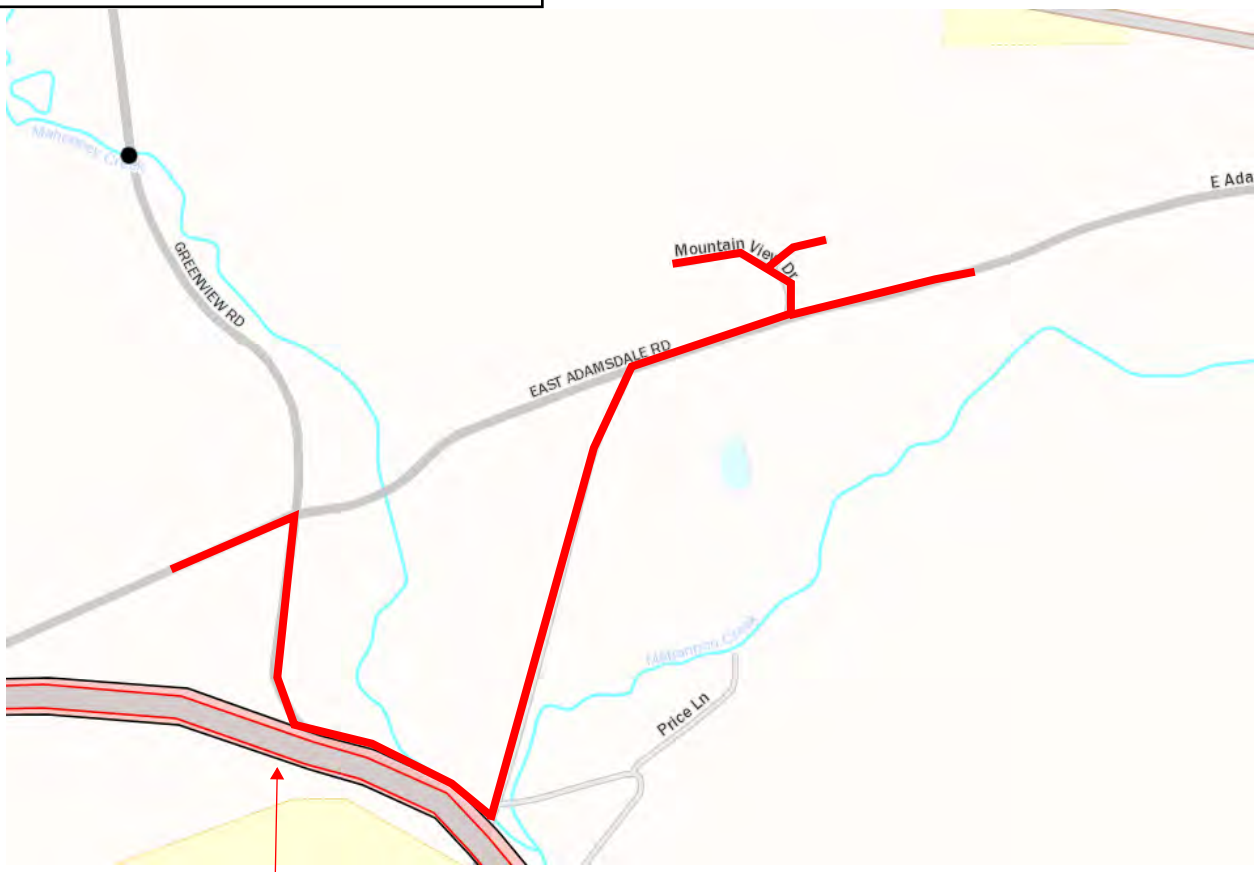
Observations

No Data Present

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16I & 16K

Below is a map from the CRGIS of the location (Adamsdale Road to Schuylkill Haven) where the sewer extension will occur. Attached is a report for Property Name: "Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)"

Orwigsburg Basin - Extension No. 1A & 2A



ID: 141041
Key: 155997

Historic Resource Information

Identification

Key #: 155997
Property Name: Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
Resource Type: District
Approximate # of Resources: 1
ER #: 2010-9001-091

Location

Berks County: Amity Township
Berks County: Muhlenberg Township
Chester County: East Pikeland Township
Montgomery County: Lower Pottsgrove Township
Berks County: Leesport Borough
Chester County: East Vincent Township
Montgomery County: West Pottsgrove Township
Schuylkill County: Mahanoy Township
Schuylkill County: South Manheim Township
Berks County: Hamburg Borough
Chester County: East Coventry Township
Montgomery County: Pottstown Borough
Montgomery County: Upper Providence Township
Schuylkill County: North Manheim Township
Schuylkill County: Palo Alto Borough
Schuylkill County: Port Carbon Borough
Berks County: Exeter Township
Berks County: Perry Township
Berks County: Reading City
Chester County: Phoenixville Borough
Montgomery County: Whitemarsh Township
Schuylkill County: Blythe Township
Schuylkill County: East Norwegian Township
Schuylkill County: Ryan Township
Berks County: Douglass Township
Montgomery County: Lower Providence Township
Schuylkill County: Landingville Borough
Schuylkill County: New Castle Township
Schuylkill County: St. Clair Borough
Schuylkill County: West Brunswick Township
Multi-County County: Multi-Municips
Berks County: Ontelaunee Township
Berks County: Tilden Township
Chester County: Spring City Borough
Montgomery County: Lower Merion Township
Montgomery County: Norristown Borough
Philadelphia County: Philadelphia City
Berks County: Cumru Township
Berks County: Lower Alsace Township
Berks County: Shoemakersville Borough
Montgomery County: West Norriton Township

Historic Resource Information

Montgomery County: Conshohocken Borough
Montgomery County: Plymouth Township
Schuylkill County: Schuylkill Haven Borough

Status

NR Status: SHPO: Not Eligible
Contributes: Undetermined
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1882, circa 1887

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad

Current Function

Function	Sub Function	Particular Use
Recreation and Culture	Outdoor Recreation	
Transportation	Rail-Related	
Vacant/Not in use		

Inventory Items

Report	Name
View	Pennsylvania Railroad: Schuylkill River Bridge (Reading)
View	Pennsylvania Railroad: Schuylkill River Bridge; Schuylkill River Trail: Schuylkill River Bridge
View	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction): Bridge

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
101699	Pennsylvania Railroad: Schuylkill Valley Division: overpass	Historically Associated
102978	Pennsylvania Railroad: Schuylkill Division (Muhlenberg Twp. to Hamburg) ; Blue Mountain & Reading Railroad (Leesport to Shoemakersville); Pennsylvania Schuykill Valley Railroad (Muhlenberg Twp. to Hamburg)	Historically Associated
118971	Pennsylvania Railroad: Schuylkill Valley Division (Phoenixville)	Historic District
121779	Pennsylvania Railroad: Schuylkill Valley Division: Bridge (Oaks)	Historically Associated
136713	Montgomery Ave. bridge over SEPTA	Historically Associated
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Historic Resource Information

Administrative Actions

12/27/2017: Date Record Updated
01/28/2010: SHPO: Not Eligible
01/25/2010: HRSF/DOE Received
12/23/2009: SHPO Site Visit

National Register Information

No Data Present

Attachments

Attachment	Name
Form	H155997_134641_D.pdf

Report	Title
2016-1458-042-G	Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County

Comments

No Data Present

Outbuildings

No Data Present

Observations

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2016-1458-042-G
Title: Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County
Author: Grandine, K
Organization: R Christopher Goodwin & Associates
Date: 1/13/2017
Agency: FERC
Agency Type: Federal Agency
No. of Pages: 20

Location

County	Municipality
Lancaster	Drumore Township
Lancaster	Eden Township
Multi-County	Multi-Municips
Chester	East Whiteland Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Historic Geographic Survey		12	

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

No Data Present

Resources Reported

ID Number	Name
101916	Chester Valley Running Track (Downingtown to Cedar Hollow); Philadelphia & Reading Railroad: Chester Valley Branch (Downingtown to Cedar Hollow)
098216	Ebenezer African Methodist Episcopal Church
098238	Jacob Brothers Farm
098251	Jacobs, Joseph B., House
098217	Lewis, Samuel Jr., House
098259	Malin, John & James, House
155997	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)
098226	Reitenbaugh, Adam, House
083403	Reittenbaugh, Adam, Barn No. 2
098248	Smith, Benjamin F., House

4098200	Zbek Timble Robertson Complex

Archaeological and Historical Survey Report Information

Physiographic Zone **No Data Present**

Attachments

Type	Name
Report	20161458042H_3.pdf
Report	20161458042G_3.pdf
Report	20161458042N_3.pdf
Report	20161458042L_3.pdf

Comments **No Data Present**

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16L

Refer to Map No. 16H & 16I

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2016-1458-042-G
Title: Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County
Author: Grandine, K
Organization: R Christopher Goodwin & Associates
Date: 1/13/2017
Agency: FERC
Agency Type: Federal Agency
No. of Pages: 20

Location

County	Municipality
Lancaster	Drumore Township
Lancaster	Eden Township
Multi-County	Multi-Municips
Chester	East Whiteland Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Historic Geographic Survey		12	

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

No Data Present

Resources Reported

ID Number	Name
101916	Chester Valley Running Track (Downingtown to Cedar Hollow); Philadelphia & Reading Railroad: Chester Valley Branch (Downingtown to Cedar Hollow)
098216	Ebenezer African Methodist Episcopal Church
098238	Jacob Brothers Farm
098251	Jacobs, Joseph B., House
098217	Lewis, Samuel Jr., House
098259	Malin, John & James, House
155997	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)
098226	Reitenbaugh, Adam, House
083403	Reittenbaugh, Adam, Barn No. 2
098248	Smith, Benjamin F., House

4098200	Zbek Timble Robertson Complex

Archaeological and Historical Survey Report Information

Physiographic Zone **No Data Present**

Attachments

Type	Name
Report	20161458042H_3.pdf
Report	20161458042G_3.pdf
Report	20161458042N_3.pdf
Report	20161458042L_3.pdf

Comments **No Data Present**

Historic Resource Information

Identification

Key #: 155997
Property Name: Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
Resource Type: District
Approximate # of Resources: 1
ER #: 2010-9001-091

Location

Berks County: Amity Township
Berks County: Muhlenberg Township
Chester County: East Pikeland Township
Montgomery County: Lower Pottsgrove Township
Berks County: Leesport Borough
Chester County: East Vincent Township
Montgomery County: West Pottsgrove Township
Schuylkill County: Mahanoy Township
Schuylkill County: South Manheim Township
Berks County: Hamburg Borough
Chester County: East Coventry Township
Montgomery County: Pottstown Borough
Montgomery County: Upper Providence Township
Schuylkill County: North Manheim Township
Schuylkill County: Palo Alto Borough
Schuylkill County: Port Carbon Borough
Berks County: Exeter Township
Berks County: Perry Township
Berks County: Reading City
Chester County: Phoenixville Borough
Montgomery County: Whitemarsh Township
Schuylkill County: Blythe Township
Schuylkill County: East Norwegian Township
Schuylkill County: Ryan Township
Berks County: Douglass Township
Montgomery County: Lower Providence Township
Schuylkill County: Landingville Borough
Schuylkill County: New Castle Township
Schuylkill County: St. Clair Borough
Schuylkill County: West Brunswick Township
Multi-County County: Multi-Municips
Berks County: Ontelaunee Township
Berks County: Tilden Township
Chester County: Spring City Borough
Montgomery County: Lower Merion Township
Montgomery County: Norristown Borough
Philadelphia County: Philadelphia City
Berks County: Cumru Township
Berks County: Lower Alsace Township
Berks County: Shoemakersville Borough
Montgomery County: West Norriton Township

Historic Resource Information

Montgomery County: Conshohocken Borough
Montgomery County: Plymouth Township
Schuylkill County: Schuylkill Haven Borough

Status

NR Status: SHPO: Not Eligible
Contributes: Undetermined
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1882, circa 1887

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad

Current Function

Function	Sub Function	Particular Use
Recreation and Culture	Outdoor Recreation	
Transportation	Rail-Related	
Vacant/Not in use		

Inventory Items

Report	Name
View	Pennsylvania Railroad: Schuylkill River Bridge (Reading)
View	Pennsylvania Railroad: Schuylkill River Bridge; Schuylkill River Trail: Schuylkill River Bridge
View	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction): Bridge

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
101699	Pennsylvania Railroad: Schuylkill Valley Division: overpass	Historically Associated
102978	Pennsylvania Railroad: Schuylkill Division (Muhlenberg Twp. to Hamburg) ; Blue Mountain & Reading Railroad (Leesport to Shoemakersville); Pennsylvania Schuykill Valley Railroad (Muhlenberg Twp. to Hamburg)	Historically Associated
118971	Pennsylvania Railroad: Schuylkill Valley Division (Phoenixville)	Historic District
121779	Pennsylvania Railroad: Schuylkill Valley Division: Bridge (Oaks)	Historically Associated
136713	Montgomery Ave. bridge over SEPTA	Historically Associated
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Historic Resource Information

Administrative Actions

12/27/2017: Date Record Updated
01/28/2010: SHPO: Not Eligible
01/25/2010: HRSF/DOE Received
12/23/2009: SHPO Site Visit

National Register Information

No Data Present

Attachments

Attachment	Name
Form	H155997_134641_D.pdf

Report	Title
2016-1458-042-G	Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County

Comments

No Data Present

Outbuildings

No Data Present

Observations

No Data Present

Pennsylvania Department of Transportation
Highway Project Development
Preliminary Cultural Resources Review Form

Logged In DOEQ 4/30/93
Pit 055304

To: Bureau of Design, Environmental Quality Division

From: Engineering District 5-0 Contact Person E. Jerry Neal
Telephone Number 8-379-6007

Initial PCRRF Submission? Yes X No _____

Project Information

Traffic Route(s) T-686 State Route(s) _____ Section(s) _____

Type of Funding: Federal _____ State X Local _____

Project Description (Attachments as necessary) Photos Enclosed
The project will consist of the demolition and removal of an abandoned overhead railroad structure, and the realignment and reconstruction of T-686, Memorial Drive, in Schuylkill County, North Manheim Township. North Manheim Township has given a free release of the right-of-way needed by the Department for slope easement. The earth disturbance required to remove the structure and provide slope easement lies within the fill area of the Penn Central Railroad, all earth to be removed from this project is the fill from the railroad.

If Bridge Involvement:

On System _____ Off System X PennDOT Survey _____ SHPO Decision _____ (etc.)

Study Area Information

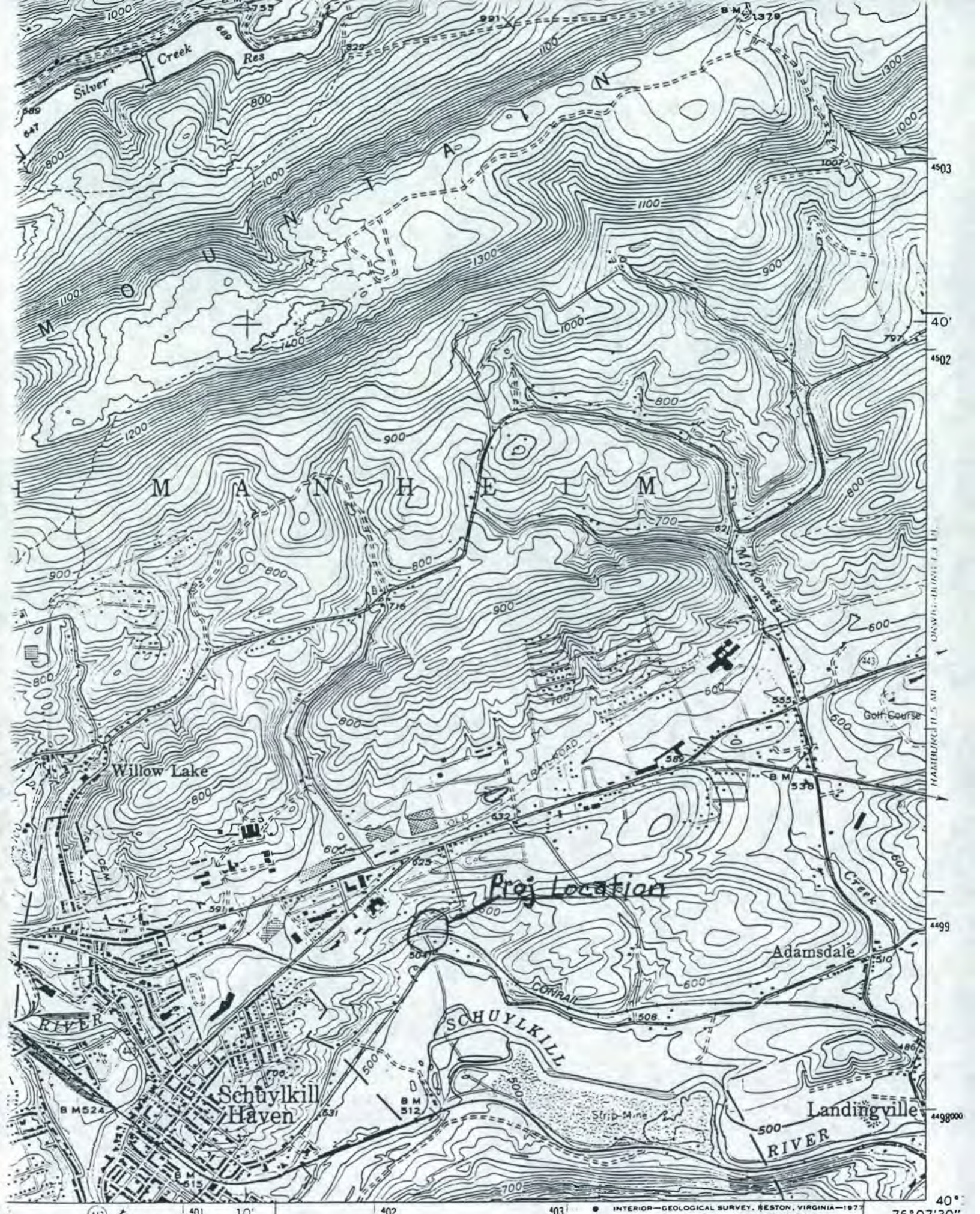
County(s) Schuylkill City or Township(s) Schuylkill Haven

USGS Quadrangle(s) Pottsville

UTM Coordinates: Northing 40°37'30" Easting 76°07'30"
(Attach USGS Quadrangle Showing Study Area)

Additional coordination via Central Office:

RECEIVED
APR 30 1993
ENVIRONMENTAL QUALITY



ROAD CLASSIFICATION

PHOTO 1
Shows the approach that is to be realigned (north Approach), and the northwest corner of the project. View is from north looking southwest.

PHOTO 2
Shows the north face of the railroad overpass. View is from north looking south.

PHOTO 3
Shows the northeast corner of the overpass.
View is from the north looking southeast.

PHOTO 4
Shows the south approach to the overpass. View is from the South looking North.

PHOTO 5
View is from South looking North showing the south face of the overpass.

PHOTO 6
View is from Southwest looking Northeast, showing the Southeast corner of the project.

PHOTO 7
View is from Southeast looking Northwest, showing the Southwest corner of the project.

PHOTO 8
Shows west face of Eckert Property located in Southeast corner of the project. There is no right-of-way acquisition from this property. View is from the Southwest looking East.

PHOTO 9
Shows the North face of the Eckert Property. View is from the Northwest looking Southeast.

PHOTO 10
Shows the brick and concrete tunnel of the overpass. (stone is only used on the faces of the overpass).

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

FILE

file 101697
N. Manheim
107

January 28, 2010

Brian G. Thompson, P.E., Director
Bureau of Design, Department of Transportation
P.O. Box 2966
Harrisburg, PA 17105

RE: ER 10-9001-091; MPMS 87091
Lower Merion Township PCTI – Cynwyd Heritage Trail
Lower Merion Township, Montgomery County
Determination of Eligibility: Pennsylvania Railroad: Schuylkill Valley Branch,
Key # 155997

Dear Mr. Thompson:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CRF Part 800) of the Advisory Council on Historic Preservation as revised in 1999 and 2004. These regulations require consideration of the project's potential effect upon both historic and archaeological resources.

On December 23, 2009, the BHP Transportation Enhancement Coordinator (TEC) attended a field view for the project with representatives from PennDOT District 6, Delaware Valley Regional Planning Commission, Pennoni Associates Inc. and Lower Merion Township.

PennDOT District 6 requested that the BHP TEC complete a Pennsylvania Historic Resource Form (PHRF) for the Pennsylvania Railroad Schuylkill Division rail corridor located within the Area of Potential Effect (APE).

The evaluation and determination of significance, when examining only a small portion of a railroad within the project APE, is problematic. Since PHRFs have been submitted for other portions of the line, and the BHP TEC generated additional documentation, our office was able to evaluate the line in its entirety.

It is the opinion of the State Historic Preservation Officer that the following resource is not eligible for listing in the National Register of Historic Places:

Pennsylvania Railroad: Schuylkill Valley Branch
(West Philadelphia to New Boston Junction)
Key # 155997

Therefore, the previous determinations of eligibility for the resources listed below have been rescinded:

Pennsylvania Railroad: Schuylkill Valley Branch
(Muhlenberg Township to Hamburg), Key # 102978

Pennsylvania Schuylkill Valley Branch
(Plymouth Township to Norristown), Key 124898

Please note that historically related resources such as bridges or stations that have either been individually listed, deemed individually eligible of the Pennsylvania Railroad: Schuylkill Valley Branch will remain as such. In addition, historically related resources may have the potential to be individually eligible.

If you have any questions, please contact Cheryl L. Nagle at 717-772-4519 or chnagle@state.pa.us.

Sincerely,

Andrea MacDonald

Andrea MacDonald, Chief
Division of Preservation Services

ALM/cln

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

October 11, 1994

Fred W. Bowser, Director
Bureau of Design
Department of Transportation
1118 Transportation & Safety Bldg.
Harrisburg, PA 17120

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 93-2351-107-D
Schuylkill County
T-686 Railroad Underpass Removal
Schuylkill ~~Haven~~ N. Manheim Twp

Dear Mr. Bowser:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau is in receipt of the latest PCRRF submission concerning the above listed project following a meeting held with your agency on July 25, 1994. The latest submission references an additional railroad underpass historically associated with the Reading Railroad known as the T-688 underpass. It appears from the photographs supplied for the T-688 underpass that this structure is also a contributing feature of the resource and meets the criteria for National Register of Historic Places. The plan to retain the T-688 underpass is acceptable. However, the proposed demolition of the T-686 underpass is still an adverse effect. Since the recent PCRRF submission references this as a 100% federally funded project, the next step in the process involves the preparation of a Memorandum of Agreement. Our July 14, 1993 letter (ER# 93-2351-107-B) outlines the specifications for recordation.

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt Carr, Chief
Division of Archaeology & Protection

cc: Federal Highway Administration
D. Suciu Smith, PDOT, Bureau of Environmental Quality
Bob Keller, Dept. of Transportation, District 5-0
KC/smz

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

July 14, 1993

Fred W. Bowser, Director
Bureau of Design
Department of Transportation
1118 Transportation & Safety Bldg.
Harrisburg, PA 17120

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: 93-2351-107-B
Schuylkill County
T-686 Realignment/Reconstruction
Schuylkill Haven

Dear Mr. Bowser:

The Bureau for Historic Preservation has reviewed this State funded, assisted or licensed project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 507 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

It is the opinion of the State Historic Preservation Officer that the following property is eligible for listing in the National Register of Historic Places: Reading Railroad Underpass, T-686, Schuylkill Haven, Schuylkill County. This structure, associated with a significant Pennsylvania railroad, is a fine example of its type and meets National Register criteria A and C.

In our opinion this project will have an effect on properties eligible for the National Register of Historic Places (listed above). Furthermore, it is our opinion that this project will adversely effect the historic and architectural qualities that make the property eligible. You will need to continue to consult with the Bureau for Historic Preservation to seek ways to avoid or reduce the effects on historic properties.

If demolition can not be avoided, a Memorandum of Agreement must be prepared for the project. We request that the following stipulation be added to the Memorandum. Due to the importance of the Reading Railroad and the intact condition of the underpass we request Historic American Building Survey/Historic American Engineering Record for the structure. This recordation should include a site plan, longitudinal and Latitudinal cross-sections of the tunnel and photographs of the entrance portals. For other

recordation details please contact the National Park Service, U.S. Custom House, Room 251, Philadelphia, PA 19106. (215)597-484.

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Brenda Barrett
Director

cc: Advisory Council on Historic Preservation
D. Suciu Smith, PDOT, Bureau of Environmental Quality
Bob Keller, Dept. of Transportation, District 5-0
BB/smz

Historic Resource Information

Identification

Key #: 101699
Property Name: Pennsylvania Railroad: Schuylkill Valley Division: overpass
Resource Type: Structure
Approximate # of Resources: 1
ER #: 1993-2351-107

Location

Schuylkill County: North Manheim Township
USGS Quadrangle: Pottsville

Status

NR Status: SHPO: Eligible
Contributes: Undetermined
Owner: Local Public
Condition: Unreported

Historic Information

No Data Present

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad overpass

Current Function

No Data Present

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Administrative Actions

03/10/2002: Date Record Updated
07/13/1993: SHPO Staff Meeting
07/13/1993: SHPO: Eligible
07/12/1993: HRSF/DOE Received

National Register Information

No Data Present

Attachments

Historic Resource Information

Attachment	Name
Form	H101699_101599_D.pdf

Comments

Re-evaluation of National Register eligibility may be necessary due to the date of the initial evaluation. Please contact the SHPO for guidance.

original survey incorrectly named this 'Reading Railroad'

Outbuildings

No Data Present

Observations

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1989-1646-107-C
Title: PhI Cultural Res. Survey,S.R. 61, Section 02S Agreement 05-01020, Schuylkill County,Pennsylvania
Author: K.Beckman
Organization: Skelly and Loy
Date: 3/1/1990
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 47

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	1.9	0	Systematic Shovel Testing
Phase I	1.9	0	Systematic Shovel Testing

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	None given

Resources Reported

No Data Present

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

Type	Name
Abstract	19891646107C.PDF

Comments

No Data Present

SCHUYLKILL COUNTY
S.R.61, SECTION O2S
AGREEMENT 05-01020
PHASE I CULTURAL RESOURCES

ABSTRACT

A Phase I cultural resources survey has been completed for a proposed road construction project in North Manheim Township, Schuylkill County, Pennsylvania. The proposed project consists of the construction of a jughandle near the intersection of Routes 61 and 443, and a connector road between Route 61 and Route 2008 near the town of Schuylkill Haven. The project has been designed to provide safe access for vehicular traffic which crosses Route 61.

The two areas which will be affected by the proposed construction lie approximately one mile apart. For the purposes of the Phase I survey, the area in which the jughandle is to be constructed near the intersection of Route 61 and Route 443 was designated as Project Area A, and the area in which the road connecting Route 61 and Route 2008 is to be constructed was designated as Project Area B.

Phase I survey consisted of background research, informant interviews, a geomorphology reconnaissance and field testing. Background research revealed that no prehistoric cultural resources were recorded in the vicinity of the project areas, and local informants knew of no prehistoric sites in either project area.

Historical background research revealed that farmsteads were recorded in both project areas on the map of North Manheim Township in the 1875 Beers Atlas of Schuylkill, Pennsylvania. Field inspection of Project Area A revealed the existence of a house foundation and the foundations of several outbuildings within the limits of the construction ROW. Field inspection of Project Area B revealed that no structures or foundations existed within the construction ROW, but that a late-nineteenth century house, barn and outbuilding were located immediately to the east. A Historic Structures Survey was performed in order to assess the significance of these structures. It was found that the structures lack architectural integrity and do not meet the criteria of eligibility for listing on the National Register of Historic Places. The results of the Historic Structures Survey are contained in a separate report.

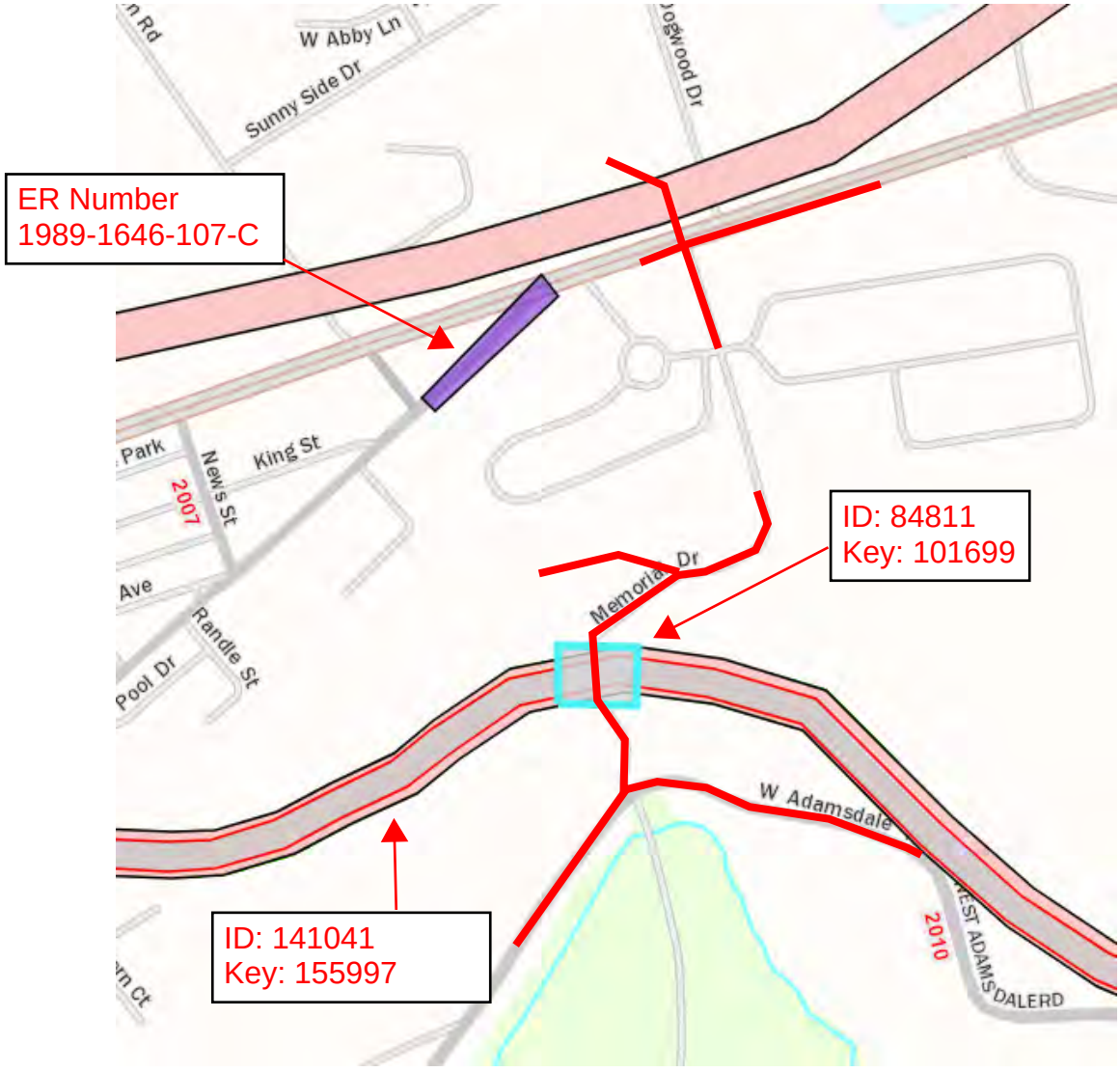
Phase I testing was designed primarily to locate historic cultural resources. In Project Area A, 50x50 cm shovel test pits (STPs) were excavated at 6 meter intervals between the house and outbuilding foundations, in the area which was most likely to contain historic materials. STPS were placed at 15 meter intervals

throughout the remainder of the project area. STPs were also excavated at 15 meter intervals in Project Area B.

Only fragmentary modern debris was encountered in Project Area A. No prehistoric or historic materials were recovered either in Project Area A or Project Area B. Because no potentially significant structures, features or artifacts were encountered during Phase I survey, the proposed construction project will not affect cultural resources eligible for listing in the National Register of Historic Places. No further archaeological testing of either project area is recommended.

North Manheim Township Act 537 Sewage Facilities Plan
Pennsylvania Historical Museum Commission
Cultural Resources Geographic Information System Search Results
Map No: 16M

Below is a map from the CRGIS of the location (Adamsdale Road & Memorial Drive) where the sewer extension will occur. Attached is a report for a cultural resources survey and a report for property name: "Pennsylvania Railroad: Schuylkill Valley Division: overpass"



Archaeological and Historical Survey Report Information

Survey Information

Report Number: 1989-1646-107-C
Title: PhI Cultural Res. Survey,S.R. 61, Section 02S Agreement 05-01020, Schuylkill County,Pennsylvania
Author: K.Beckman
Organization: Skelly and Loy
Date: 3/1/1990
Agency: FHWA
Agency Type: Federal Agency
No. of Pages: 47

Location

County	Municipality
Schuylkill	North Manheim Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Phase I	1.9	0	Systematic Shovel Testing
Phase I	1.9	0	Systematic Shovel Testing

Repository

Item	Location
Report (Digital)	PHMC-Historic Preservation Office

Hydrology

Sub-Basin	Watershed	Major Stream	Minor Stream
(3) Lower Delaware River	Watershed A	Schuylkill River	None given

Resources Reported

No Data Present

Physiographic Zone

Physiographic Zone: Blue Mountain Section(33)

Attachments

Type	Name
Abstract	19891646107C.PDF

Comments

No Data Present

SCHUYLKILL COUNTY
S.R.61, SECTION O2S
AGREEMENT 05-01020
PHASE I CULTURAL RESOURCES

ABSTRACT

A Phase I cultural resources survey has been completed for a proposed road construction project in North Manheim Township, Schuylkill County, Pennsylvania. The proposed project consists of the construction of a jughandle near the intersection of Routes 61 and 443, and a connector road between Route 61 and Route 2008 near the town of Schuylkill Haven. The project has been designed to provide safe access for vehicular traffic which crosses Route 61.

The two areas which will be affected by the proposed construction lie approximately one mile apart. For the purposes of the Phase I survey, the area in which the jughandle is to be constructed near the intersection of Route 61 and Route 443 was designated as Project Area A, and the area in which the road connecting Route 61 and Route 2008 is to be constructed was designated as Project Area B.

Phase I survey consisted of background research, informant interviews, a geomorphology reconnaissance and field testing. Background research revealed that no prehistoric cultural resources were recorded in the vicinity of the project areas, and local informants knew of no prehistoric sites in either project area.

Historical background research revealed that farmsteads were recorded in both project areas on the map of North Manheim Township in the 1875 Beers Atlas of Schuylkill, Pennsylvania. Field inspection of Project Area A revealed the existence of a house foundation and the foundations of several outbuildings within the limits of the construction ROW. Field inspection of Project Area B revealed that no structures or foundations existed within the construction ROW, but that a late-nineteenth century house, barn and outbuilding were located immediately to the east. A Historic Structures Survey was performed in order to assess the significance of these structures. It was found that the structures lack architectural integrity and do not meet the criteria of eligibility for listing on the National Register of Historic Places. The results of the Historic Structures Survey are contained in a separate report.

Phase I testing was designed primarily to locate historic cultural resources. In Project Area A, 50x50 cm shovel test pits (STPs) were excavated at 6 meter intervals between the house and outbuilding foundations, in the area which was most likely to contain historic materials. STPS were placed at 15 meter intervals

throughout the remainder of the project area. STPs were also excavated at 15 meter intervals in Project Area B.

Only fragmentary modern debris was encountered in Project Area A. No prehistoric or historic materials were recovered either in Project Area A or Project Area B. Because no potentially significant structures, features or artifacts were encountered during Phase I survey, the proposed construction project will not affect cultural resources eligible for listing in the National Register of Historic Places. No further archaeological testing of either project area is recommended.

Historic Resource Information

Identification

Key #: 101699
Property Name: Pennsylvania Railroad: Schuylkill Valley Division: overpass
Resource Type: Structure
Approximate # of Resources: 1
ER #: 1993-2351-107

Location

Schuylkill County: North Manheim Township
USGS Quadrangle: Pottsville

Status

NR Status: SHPO: Eligible
Contributes: Undetermined
Owner: Local Public
Condition: Unreported

Historic Information

No Data Present

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad overpass

Current Function

No Data Present

Inventory Items

No Data Present

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Administrative Actions

03/10/2002: Date Record Updated
07/13/1993: SHPO Staff Meeting
07/13/1993: SHPO: Eligible
07/12/1993: HRSF/DOE Received

National Register Information

No Data Present

Attachments

Historic Resource Information

Attachment	Name
Form	H101699_101599_D.pdf

Comments

Re-evaluation of National Register eligibility may be necessary due to the date of the initial evaluation. Please contact the SHPO for guidance.

original survey incorrectly named this 'Reading Railroad'

Outbuildings

No Data Present

Observations

No Data Present

Pennsylvania Department of Transportation
Highway Project Development
Preliminary Cultural Resources Review Form

Logged In DOEQ 4/30/93
Pit 055304

To: Bureau of Design, Environmental Quality Division

From: Engineering District 5-0 Contact Person E. Jerry Neal
Telephone Number 8-379-6007

Initial PCRRF Submission? Yes X No _____

Project Information

Traffic Route(s) T-686 State Route(s) _____ Section(s) _____

Type of Funding: Federal _____ State X Local _____

Project Description (Attachments as necessary) Photos Enclosed
The project will consist of the demolition and removal of an abandoned overhead railroad structure, and the realignment and reconstruction of T-686, Memorial Drive, in Schuylkill County, North Manheim Township. North Manheim Township has given a free release of the right-of-way needed by the Department for slope easement. The earth disturbance required to remove the structure and provide slope easement lies within the fill area of the Penn Central Railroad, all earth to be removed from this project is the fill from the railroad.

If Bridge Involvement:

On System _____ Off System X PennDOT Survey _____ SHPO Decision _____ (etc.)

Study Area Information

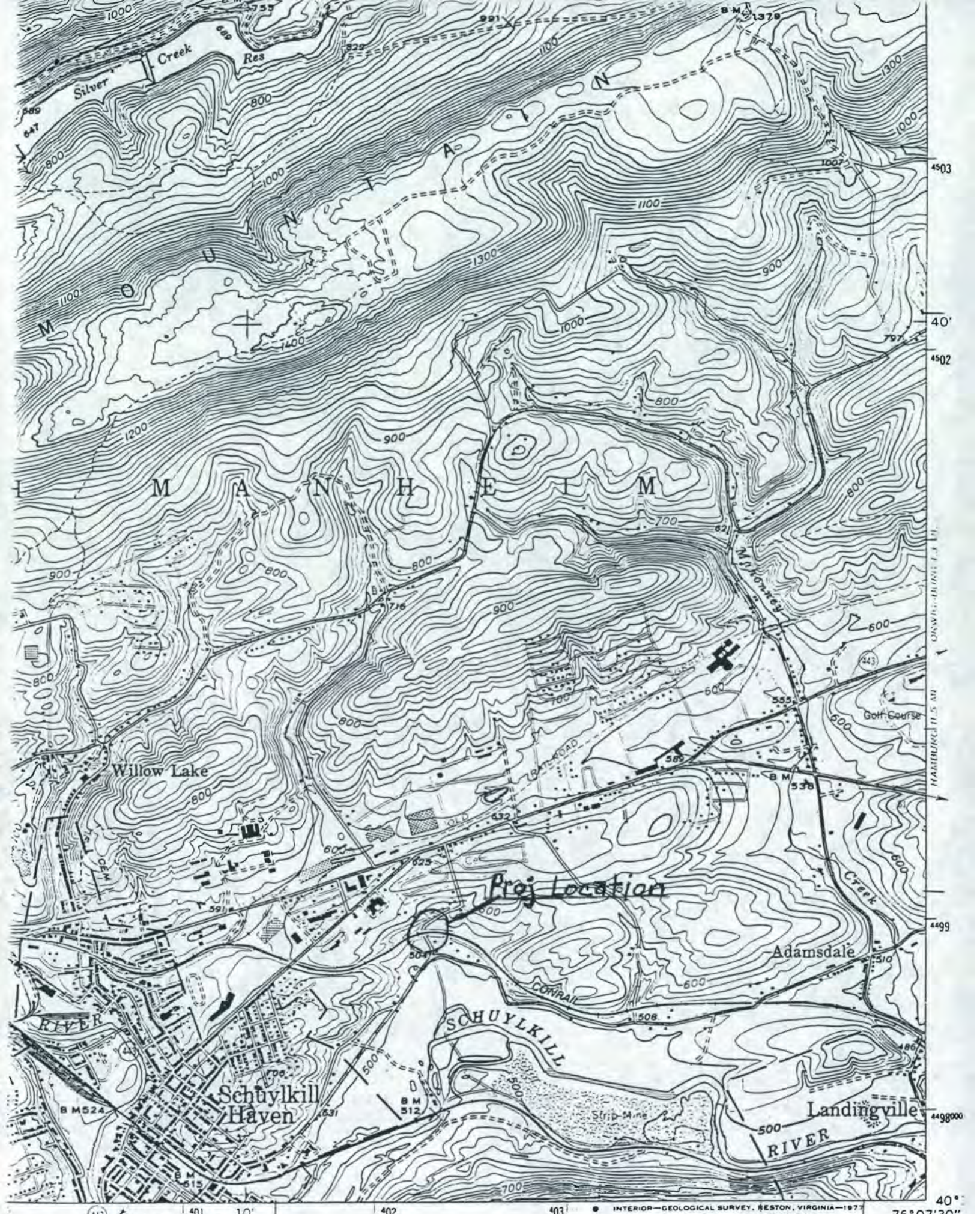
County(s) Schuylkill City or Township(s) Schuylkill Haven

USGS Quadrangle(s) Pottsville

UTM Coordinates: Northing 40°37'30" Easting 76°07'30"
(Attach USGS Quadrangle Showing Study Area)

Additional coordination via Central Office:

RECEIVED
APR 30 1993
ENVIRONMENTAL QUALITY



ROAD CLASSIFICATION

PHOTO 1
Shows the approach that is to be realigned (north Approach), and the northwest corner of the project. View is from north looking southwest.

PHOTO 2
Shows the north face of the railroad overpass. View is from north looking south.

PHOTO 3
Shows the northeast corner of the overpass.
View is from the north looking southeast.

PHOTO 4
Shows the south approach to the overpass. View is from the South looking North.

PHOTO 5
View is from South looking North showing the south face of the overpass.

PHOTO 6
View is from Southwest looking Northeast, showing the Southeast corner of the project.

PHOTO 7
View is from Southeast looking Northwest, showing the Southwest corner of the project.

PHOTO 8
Shows west face of Eckert Property located in Southeast corner of the project. There is no right-of-way acquisition from this property. View is from the Southwest looking East.

PHOTO 9
Shows the North face of the Eckert Property. View is from the Northwest looking Southeast.

PHOTO 10
Shows the brick and concrete tunnel of the overpass. (stone is only used on the faces of the overpass).

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

FILE

file 101697
N. Manheim
107

January 28, 2010

Brian G. Thompson, P.E., Director
Bureau of Design, Department of Transportation
P.O. Box 2966
Harrisburg, PA 17105

RE: ER 10-9001-091; MPMS 87091
Lower Merion Township PCTI – Cynwyd Heritage Trail
Lower Merion Township, Montgomery County
Determination of Eligibility: Pennsylvania Railroad: Schuylkill Valley Branch,
Key # 155997

Dear Mr. Thompson:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CRF Part 800) of the Advisory Council on Historic Preservation as revised in 1999 and 2004. These regulations require consideration of the project's potential effect upon both historic and archaeological resources.

On December 23, 2009, the BHP Transportation Enhancement Coordinator (TEC) attended a field view for the project with representatives from PennDOT District 6, Delaware Valley Regional Planning Commission, Pennoni Associates Inc. and Lower Merion Township.

PennDOT District 6 requested that the BHP TEC complete a Pennsylvania Historic Resource Form (PHRF) for the Pennsylvania Railroad Schuylkill Division rail corridor located within the Area of Potential Effect (APE).

The evaluation and determination of significance, when examining only a small portion of a railroad within the project APE, is problematic. Since PHRFs have been submitted for other portions of the line, and the BHP TEC generated additional documentation, our office was able to evaluate the line in its entirety.

It is the opinion of the State Historic Preservation Officer that the following resource is not eligible for listing in the National Register of Historic Places:

Pennsylvania Railroad: Schuylkill Valley Branch
(West Philadelphia to New Boston Junction)
Key # 155997

Therefore, the previous determinations of eligibility for the resources listed below have been rescinded:

Pennsylvania Railroad: Schuylkill Valley Branch
(Muhlenberg Township to Hamburg), Key # 102978

Pennsylvania Schuylkill Valley Branch
(Plymouth Township to Norristown), Key 124898

Please note that historically related resources such as bridges or stations that have either been individually listed, deemed individually eligible of the Pennsylvania Railroad: Schuylkill Valley Branch will remain as such. In addition, historically related resources may have the potential to be individually eligible.

If you have any questions, please contact Cheryl L. Nagle at 717-772-4519 or chnagle@state.pa.us.

Sincerely,

Andrea MacDonald

Andrea MacDonald, Chief
Division of Preservation Services

ALM/cln

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

October 11, 1994

Fred W. Bowser, Director
Bureau of Design
Department of Transportation
1118 Transportation & Safety Bldg.
Harrisburg, PA 17120

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 93-2351-107-D
Schuylkill County
T-686 Railroad Underpass Removal
Schuylkill ~~Haven~~ N. Manheim Twp

Dear Mr. Bowser:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau is in receipt of the latest PCRRF submission concerning the above listed project following a meeting held with your agency on July 25, 1994. The latest submission references an additional railroad underpass historically associated with the Reading Railroad known as the T-688 underpass. It appears from the photographs supplied for the T-688 underpass that this structure is also a contributing feature of the resource and meets the criteria for National Register of Historic Places. The plan to retain the T-688 underpass is acceptable. However, the proposed demolition of the T-686 underpass is still an adverse effect. Since the recent PCRRF submission references this as a 100% federally funded project, the next step in the process involves the preparation of a Memorandum of Agreement. Our July 14, 1993 letter (ER# 93-2351-107-B) outlines the specifications for recordation.

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt Carr, Chief
Division of Archaeology & Protection

cc: Federal Highway Administration
D. Suciu Smith, PDOT, Bureau of Environmental Quality
Bob Keller, Dept. of Transportation, District 5-0
KC/smz

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

July 14, 1993

Fred W. Bowser, Director
Bureau of Design
Department of Transportation
1118 Transportation & Safety Bldg.
Harrisburg, PA 17120

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: 93-2351-107-B
Schuylkill County
T-686 Realignment/Reconstruction
Schuylkill Haven

Dear Mr. Bowser:

The Bureau for Historic Preservation has reviewed this State funded, assisted or licensed project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 507 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

It is the opinion of the State Historic Preservation Officer that the following property is eligible for listing in the National Register of Historic Places: Reading Railroad Underpass, T-686, Schuylkill Haven, Schuylkill County. This structure, associated with a significant Pennsylvania railroad, is a fine example of its type and meets National Register criteria A and C.

In our opinion this project will have an effect on properties eligible for the National Register of Historic Places (listed above). Furthermore, it is our opinion that this project will adversely effect the historic and architectural qualities that make the property eligible. You will need to continue to consult with the Bureau for Historic Preservation to seek ways to avoid or reduce the effects on historic properties.

If demolition can not be avoided, a Memorandum of Agreement must be prepared for the project. We request that the following stipulation be added to the Memorandum. Due to the importance of the Reading Railroad and the intact condition of the underpass we request Historic American Building Survey/Historic American Engineering Record for the structure. This recordation should include a site plan, longitudinal and Latitudinal cross-sections of the tunnel and photographs of the entrance portals. For other

recordation details please contact the National Park Service, U.S. Custom House, Room 251, Philadelphia, PA 19106. (215)597-484.

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Brenda Barrett
Director

cc: Advisory Council on Historic Preservation
D. Suciu Smith, PDOT, Bureau of Environmental Quality
Bob Keller, Dept. of Transportation, District 5-0
BB/smz

Historic Resource Information

Identification

Key #: 155997
Property Name: Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
Resource Type: District
Approximate # of Resources: 1
ER #: 2010-9001-091

Location

Berks County: Amity Township
Berks County: Muhlenberg Township
Chester County: East Pikeland Township
Montgomery County: Lower Pottsgrove Township
Berks County: Leesport Borough
Chester County: East Vincent Township
Montgomery County: West Pottsgrove Township
Schuylkill County: Mahanoy Township
Schuylkill County: South Manheim Township
Berks County: Hamburg Borough
Chester County: East Coventry Township
Montgomery County: Pottstown Borough
Montgomery County: Upper Providence Township
Schuylkill County: North Manheim Township
Schuylkill County: Palo Alto Borough
Schuylkill County: Port Carbon Borough
Berks County: Exeter Township
Berks County: Perry Township
Berks County: Reading City
Chester County: Phoenixville Borough
Montgomery County: Whitemarsh Township
Schuylkill County: Blythe Township
Schuylkill County: East Norwegian Township
Schuylkill County: Ryan Township
Berks County: Douglass Township
Montgomery County: Lower Providence Township
Schuylkill County: Landingville Borough
Schuylkill County: New Castle Township
Schuylkill County: St. Clair Borough
Schuylkill County: West Brunswick Township
Multi-County County: Multi-Municips
Berks County: Ontelaunee Township
Berks County: Tilden Township
Chester County: Spring City Borough
Montgomery County: Lower Merion Township
Montgomery County: Norristown Borough
Philadelphia County: Philadelphia City
Berks County: Cumru Township
Berks County: Lower Alsace Township
Berks County: Shoemakersville Borough
Montgomery County: West Norriton Township

Historic Resource Information

Montgomery County: Conshohocken Borough
Montgomery County: Plymouth Township
Schuylkill County: Schuylkill Haven Borough

Status

NR Status: SHPO: Not Eligible
Contributes: Undetermined
Owner: Private
Condition: Unreported

Historic Information

Year Built: circa 1882, circa 1887

Physical Description

No Data Present

Historic Function

Function	Sub Function	Particular Use
Transportation	Rail-Related	Railroad

Current Function

Function	Sub Function	Particular Use
Recreation and Culture	Outdoor Recreation	
Transportation	Rail-Related	
Vacant/Not in use		

Inventory Items

Report	Name
View	Pennsylvania Railroad: Schuylkill River Bridge (Reading)
View	Pennsylvania Railroad: Schuylkill River Bridge; Schuylkill River Trail: Schuylkill River Bridge
View	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction): Bridge

Ancillary Features

No Data Present

Associated Resources

Resource	Name	Association
101699	Pennsylvania Railroad: Schuylkill Valley Division: overpass	Historically Associated
102978	Pennsylvania Railroad: Schuylkill Division (Muhlenberg Twp. to Hamburg) ; Blue Mountain & Reading Railroad (Leesport to Shoemakersville); Pennsylvania Schuykill Valley Railroad (Muhlenberg Twp. to Hamburg)	Historically Associated
118971	Pennsylvania Railroad: Schuylkill Valley Division (Phoenixville)	Historic District
121779	Pennsylvania Railroad: Schuylkill Valley Division: Bridge (Oaks)	Historically Associated
136713	Montgomery Ave. bridge over SEPTA	Historically Associated
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)	Historically Associated

Historic Resource Information

Administrative Actions

12/27/2017: Date Record Updated
01/28/2010: SHPO: Not Eligible
01/25/2010: HRSF/DOE Received
12/23/2009: SHPO Site Visit

National Register Information

No Data Present

Attachments

Attachment	Name
Form	H155997_134641_D.pdf

Report	Title
2016-1458-042-G	Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County

Comments

No Data Present

Outbuildings

No Data Present

Observations

No Data Present

Archaeological and Historical Survey Report Information

Survey Information

Report Number: 2016-1458-042-G
Title: Above Ground Resource Identification Northeast Supply Enhancement Project, East Whiteland Township, Chester County, Drumore, East Drumore, and Eden Townships, Lancaster County
Author: Grandine, K
Organization: R Christopher Goodwin & Associates
Date: 1/13/2017
Agency: FERC
Agency Type: Federal Agency
No. of Pages: 20

Location

County	Municipality
Lancaster	Drumore Township
Lancaster	Eden Township
Multi-County	Multi-Municips
Chester	East Whiteland Township

Report Types

Report Type	Area Surveyed (hectares)	No. of Properties/Sites	Method(s)
Historic Geographic Survey		12	

Repository

Item	Location
Report (Hardcopy)	PHMC-Historic Preservation Office

Hydrology

No Data Present

Resources Reported

ID Number	Name
101916	Chester Valley Running Track (Downingtown to Cedar Hollow); Philadelphia & Reading Railroad: Chester Valley Branch (Downingtown to Cedar Hollow)
098216	Ebenezer African Methodist Episcopal Church
098238	Jacob Brothers Farm
098251	Jacobs, Joseph B., House
098217	Lewis, Samuel Jr., House
098259	Malin, John & James, House
155997	Pennsylvania Railroad: Schuylkill Valley Branch (West Philadelphia to New Boston Junction)
155409	Pennsylvania Schuylkill Valley Railroad (aggregate file)
098226	Reitenbaugh, Adam, House
083403	Reittenbaugh, Adam, Barn No. 2
098248	Smith, Benjamin F., House

4098200	Zbek Timble Robertson Complex

Archaeological and Historical Survey Report Information

Physiographic Zone **No Data Present**

Attachments

Type	Name
Report	20161458042H_3.pdf
Report	20161458042G_3.pdf
Report	20161458042N_3.pdf
Report	20161458042L_3.pdf

Comments **No Data Present**

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix J ■ Opinion of Probable Project Costs and User Rate Analysis for Each Alternative

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 16A: 5-YEAR MAINTENANCE PROGRAM

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
TRENCHLESS REHABILITATION OF GPIDC LINE					
1	**Trenchless Rehabilitation of Pipelines**				
1A	8-inch diameter pipe liner	LF	5,850	$ 35.00	$ 204,750.00
1B	12-inch diameter pipe liner	LF	3,600	$ 40.00	$ 144,000.00
1C	Service lateral reinstatement by remote unit	EA	6	$ 150.00	$ 900.00
1D	Remotely cut protruding laterals	EA	2	$ 375.00	$ 750.00
1E	Remote sewer main root cutting	EA	10	$ 250.00	$ 2,500.00
1F	Heavy cleaning of sanitary sewer	LF	600	$ 7.50	$ 4,500.00
2	**Trenchless Rehabilitation of Manholes**				
2A	Manhole riser lining	EA	10	$ 600.00	$ 6,000.00
2B	Injection grout manhole leaks	EA	10	$ 725.00	$ 7,250.00
2C	Rehabiliation of wall joints	EA	10	$ 750.00	$ 7,500.00
3	**Miscellaneous Trenchless Rehabilitation Items**				
3A	Miscellaneous bypass pumping	DAYS	1	$ 750.00	$ 750.00
3B	Mobilization and Closeout	%	4.00	$ 15,156.00	$ 15,000.00

COSTRUCTION COST	**$ 393,900**
LEGAL/ADMINISTRATION/FINANCIAL (2%	$ 7,900
ENGINEERING (10%)	$ 39,300
INSPECTION (5%)	$ 19,600
CONTINGENCY (10%)	$ 39,300
PROJECT COST	**$ 500,000**

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	586	$ 140.00	$ 82,040.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	-	$ 160.00	$ -
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	2	$ 4,250.00	$ 8,500.00
4	**Restoration**				
4A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	455	$ 55.00	$ 25,025.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
5	**8-in SDR-26 Sanitary Sewer Pipe**				
5A	Township Cartway	LF	1,445	$ 120.00	$ 173,400.00
6	**6-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Right-of-Way (Assume 25 LF Each Building)	LF	175	$ 80.00	$ 14,000.00
7	**4-FT Diameter Standard Manhole**				
7A	Township Cartway	EA	4	$ 4,250.00	$ 17,000.00
8	**Restoration**				
8A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	1,190	$ 42.00	$ 49,980.00
8B	Unimproved Right-of-Way	SY	70	$ 25.00	$ 1,750.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
9	**Miscellaneous Construction Items**				
9A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
9B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
9C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
9D	Mobilization and Closeout	%	5.00	$ 18,690.00	$ 18,690.00

COSTRUCTION COST	**$ 392,445**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 7,900
ENGINEERING (10%)	$ 39,200
INSPECTION (5%)	$ 19,600
CONTINGENCY (10%)	$ 39,200
PROJECT COST	**$ 498,345**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)

Project		
Total Construction Cost	**$**	**392,445**
Legal / Administration / Financial (2%)	$	7,900
Engineering (10%)	$	39,200
Inspection (5%)	$	19,600
Contingency (10%)	$	39,200
Total Project Cost	**$**	**498,345**
Proportional Share of Project Cost (7/20)	**$**	**174,421**

Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
Total Cost to Finance	**$**	**171,621**

Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	42.50
Additional Monthly Cost for O&M	**$**	**44.50**

Notes:

(1) Treatment Costs per EDU per Month are based on GPASA current rate of $127.50 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$2,800	$0	$171,621	$113.22	$44.50	$157.72	2.89%
PENNVEST	1.000% for 25 yrs	$2,800	$0	$171,621	$92.77	$44.50	$137.27	2.52%
USDA Rural Development	2.5% for 40 yrs	$2,800	$0	$171,621	$81.39	$44.50	$125.89	2.31%
Conventional Bank Loan	4.000% for 20 yrs	$2,800	$0	$171,621	$150.34	$44.50	$194.84	3.57%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**392,445**
Legal / Administration / Financial (2%)	$	7,900
Engineering (10%)	$	39,200
Inspection (5%)	$	19,600
Contingency (10%)	$	39,200
Total Project Cost	**$**	**498,345**
Proportional Share of Project Cost (7/20)	**$**	**174,421**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**171,621**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	9,510
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	113.22
Quarterly Add'l Cost / EDU	$	339.66
Annual Add'l Cost / EDU	$	1,358.63
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	135,089
Annual Debt Service	$	10,310
Total Billing Units (EDUs) [(2)]		7
Monthly Add'l Cost / EDU	$	122.74
Quarterly Add'l Cost / EDU	**$**	**368.21**
Annual Add'l Cost / EDU	$	1,472.85
Administration	$	2.00
Treatment Cost per EDU per Month	$	42.50
Additional Monthly Cost for O&M	**$**	**44.50**
Total Monthly Cost (first 5 Years)	$	157.72
Total Quarterly Cost (first 5 Years)	**$**	**473.16**
Total Annual Cost (first 5 Years)	$	1,892.63
Total Monthly Cost (next 15 Years)	$	167.24
Total Quarterly Cost (next 15 Years)	**$**	**501.71**
Total Annual Cost (next 15 Years)	$	2,006.85
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.89%**
Percent of MHI for Sewer Bill (next 15 Years)		3.07%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**392,445**	**$**	**392,445**
Legal / Administration / Financial (2%)	$	7,900	$	7,900
Engineering (10%)	$	39,200	$	39,200
Inspection (5%)	$	19,600	$	19,600
Contingency (10%)	$	39,200	$	39,200
Total Project Cost	**$**	**498,345**	**$**	**498,345**
Proportional Share of Project Cost (7/20)	**$**	**174,421**	**$**	**174,421**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		7		7
Township Tapping Fee	$	2,800	$	2,800
PENNVEST Grant	$	-	$	52,161
PENNVEST Loan	**$**	**171,621**	**$**	**119,460**
Debt Service @ 1.000% for first 25 Yrs [(1)]				
Annual Debt Service	$	7,793	$	5,424
Total Billing Units (EDUs)		7		7
Monthly Add'l Cost / EDU	$	92.77	$	64.58
Quarterly Add'l Cost / EDU	**$**	**278.31**	**$**	**193.73**
Annual Add'l Cost / EDU	$	1,113.25	$	774.90
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	42.50	$	42.50
Additional Monthly Cost for O&M	**$**	**44.50**	**$**	**44.50**
Total Monthly Cost	$	137.27	$	109.08
Total Quarterly Cost	**$**	**411.81**	**$**	**327.23**
Total Annual Cost	$	1,647.25	$	1,308.90
Median Household Income [(2)]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.52%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**392,445**
Legal / Administration / Financial (2%)	$	7,900
Engineering (10%)	$	39,200
Inspection (5%)	$	19,600
Contingency (10%)	$	39,200
Total Project Cost	**$**	**498,345**
Proportional Share of Project Cost (7/20)	**$**	**174,421**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**171,621**
Debt Service @ 2.5% for first 40 Yrs [(1)]		
Annual Debt Service	$	6,837
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	81.39
Quarterly Add'l Cost / EDU	**$**	**244.17**
Annual Add'l Cost / EDU	$	976.67
Administration	$	2.00
Treatment Cost per EDU per Month	$	42.50
Additional Monthly Cost for O&M	**$**	**44.50**
Total Monthly Cost	$	125.89
Total Quarterly Cost	**$**	**377.67**
Total Annual Cost	$	1,510.67
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**2.31%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17A: POTTSVILLE BASIN - EXTENSION NO 1 (Hillside Drive / Cressona Road)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**392,445**
Legal / Administration / Financial (2%)	$	7,900
Engineering (10%)	$	39,200
Inspection (5%)	$	19,600
Contingency (10%)	$	39,200
Total Project Cost	**$**	**498,345**
Proportional Share of Project Cost (7/20)	**$**	**174,421**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
Conventional Bank Loan	**$**	**171,621**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	12,628
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	150.34
Quarterly Add'l Cost / EDU	**$**	**451.01**
Annual Add'l Cost / EDU	$	1,804.02
Administration	$	2.00
Treatment Cost per EDU per Month	$	42.50
Additional Monthly Cost for O&M	**$**	**44.50**
Total Monthly Cost	$	194.84
Total Quarterly Cost	**$**	**584.51**
Total Annual Cost	$	2,338.02
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**3.57%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	1,960	$ 140.00	$ 274,400.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	175	$ 160.00	$ 28,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	9	$ 4,250.00	$ 38,250.00
4	**Restoration**				
4A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	1,590	$ 55.00	$ 87,450.00
4B	Unimproved Right-of-Way	SY	70	$ 30.00	$ 2,100.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
5	**8-in SDR-26 Sanitary Sewer Pipe**				
5A	Township Cartway	LF	5,715	$ 120.00	$ 685,800.00
6	**6-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Right-of-Way (Assume 25 LF Each Building)	LF	800	$ 80.00	$ 64,000.00
7	**4-FT Diameter Standard Manhole**				
7A	Township Cartway	EA	17	$ 4,250.00	$ 72,250.00
8	**Restoration**				
8A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	4,640	$ 42.00	$ 194,880.00
8B	Unimproved Right-of-Way	SY	200	$ 25.00	$ 5,000.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
9	**8-in SDR-26 Sanitary Sewer Pipe**				
9A	Lawn/Open Space	LF	250	$ 100.00	$ 25,000.00
9B	Unimproved Easement	SY	195	$ 25.00	$ 4,875.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
10	**Miscellaneous Construction Items**				
10A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
10B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
10C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
10D	Mobilization and Closeout	%	5.00	$ 74,210.00	$ 74,210.00

COSTRUCTION COST	**$ 1,558,275**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 31,200
ENGINEERING (10%)	$ 155,800
INSPECTION (5%)	$ 77,900
CONTINGENCY (10%)	$ 155,800
PROJECT COST	**$ 1,978,975**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**

Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
Total Cost to Finance	**$**	**1,969,775**

Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**

Notes:

(1) Treatment Costs per EDU per Month are based on SCMA current rate of $160.00 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$9,200	$0	$1,969,775	$395.49	$55.33	$450.82	8.27%
PENNVEST	1.000% for 25 yrs	$9,200	$0	$1,969,775	$324.06	$55.33	$379.39	6.96%
USDA Rural Development	2.5% for 40 yrs	$9,200	$0	$1,969,775	$284.31	$55.33	$339.64	6.23%
Conventional Bank Loan	4.000% for 20 yrs	$9,200	$0	$1,969,775	$525.14	$55.33	$580.47	10.64%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**1,969,775**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	109,156
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	395.49
Quarterly Add'l Cost / EDU	$	1,186.48
Annual Add'l Cost / EDU	$	4,745.90
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	1,550,484
Annual Debt Service	$	118,333
Total Billing Units (EDUs) [(2)]		23
Monthly Add'l Cost / EDU	$	428.74
Quarterly Add'l Cost / EDU	**$**	**1,286.22**
Annual Add'l Cost / EDU	$	5,144.90
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost (first 5 Years)	$	450.82
Total Quarterly Cost (first 5 Years)	**$**	**1,352.47**
Total Annual Cost (first 5 Years)	$	5,409.86
Total Monthly Cost (next 15 Years)	$	484.07
Total Quarterly Cost (next 15 Years)	**$**	**1,452.21**
Total Annual Cost (next 15 Years)	$	5,808.86
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**8.27%**
Percent of MHI for Sewer Bill (next 15 Years)		8.88%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**1,558,275**	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200	$	31,200
Engineering (10%)	$	155,800	$	155,800
Inspection (5%)	$	77,900	$	77,900
Contingency (10%)	$	155,800	$	155,800
Total Project Cost	**$**	**1,978,975**	**$**	**1,978,975**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		23		23
Township Tapping Fee	$	9,200	$	9,200
PENNVEST Grant	$	-	$	1,643,092
PENNVEST Loan	**$**	**1,969,775**	**$**	**326,683**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	89,441	$	14,834
Total Billing Units (EDUs)		23		23
Monthly Add'l Cost / EDU	$	324.06	$	53.75
Quarterly Add'l Cost / EDU	**$**	**972.19**	**$**	**161.24**
Annual Add'l Cost / EDU	$	3,888.74	$	644.94
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	53.33	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**	**$**	**55.33**
Total Monthly Cost	$	379.39	$	109.08
Total Quarterly Cost	**$**	**1,138.18**	**$**	**327.23**
Total Annual Cost	$	4,552.70	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**6.96%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**1,969,775**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	78,468
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	284.31
Quarterly Add'l Cost / EDU	**$**	**852.92**
Annual Add'l Cost / EDU	$	3,411.67
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost	$	339.64
Total Quarterly Cost	**$**	**1,018.91**
Total Annual Cost	$	4,075.63
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**6.23%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
Conventional Bank Loan	**$**	**1,969,775**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	144,939
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	525.14
Quarterly Add'l Cost / EDU	**$**	**1,575.43**
Annual Add'l Cost / EDU	$	6,301.72
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost	$	580.47
Total Quarterly Cost	**$**	**1,741.42**
Total Annual Cost	$	6,965.68
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**10.64%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	470	$ 140.00	$ 65,800.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	25	$ 160.00	$ 4,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	6	$ 4,250.00	$ 25,500.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	120	$ 600.00	$ 72,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	375	$ 55.00	$ 20,625.00
5B	Unimproved Right-of-Way	SY	10	$ 30.00	$ 300.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	4,375	$ 120.00	$ 525,000.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	775	$ 80.00	$ 62,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	18	$ 4,250.00	$ 76,500.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	3,690	$ 42.00	$ 154,980.00
9B	Unimproved Right-of-Way	SY	313	$ 25.00	$ 7,825.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in DIP Sanitary Sewer Pipe**				
10A	Stream Crossing	LF	160	$ 200.00	$ 32,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
11	**Miscellaneous Construction Items**				
11A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
11B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
11C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
11D	Mobilization and Closeout	%	5.00	$ 52,430.00	$ 52,430.00

COSTRUCTION COST	**$ 1,101,020**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 22,100
ENGINEERING (10%)	$ 110,100
INSPECTION (5%)	$ 55,000
CONTINGENCY (10%)	$ 110,100
PROJECT COST	**$ 1,398,320**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)

Project		
Total Construction Cost	**$**	**1,101,020**
Legal / Administration / Financial (2%)	$	22,100
Engineering (10%)	$	110,100
Inspection (5%)	$	55,000
Contingency (10%)	$	110,100
Total Project Cost	**$**	**1,398,320**

Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		34
Township Tapping Fee	$	13,600
Total Cost to Finance	**$**	**1,384,720**

Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**

Notes:

(1) Treatment Costs per EDU per Month are based on CBA current rate of $115.00 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$13,600	$0	$1,384,720	$188.08	$40.33	$228.41	4.19%
PENNVEST	1.000% for 25 yrs	$13,600	$0	$1,384,720	$154.11	$40.33	$194.44	3.57%
USDA Rural Development	2.5% for 40 yrs	$13,600	$0	$1,384,720	$135.20	$40.33	$175.53	3.22%
Conventional Bank Loan	4.000% for 20 yrs	$13,600	$0	$1,384,720	$249.73	$40.33	$290.06	5.32%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,101,020**
Legal / Administration / Financial (2%)	$	22,100
Engineering (10%)	$	110,100
Inspection (5%)	$	55,000
Contingency (10%)	$	110,100
Total Project Cost	**$**	**1,398,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		34
Township Tapping Fee	$	13,600
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**1,384,720**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	76,735
Total Billing Units (EDUs)		34
Monthly Add'l Cost / EDU	$	188.08
Quarterly Add'l Cost / EDU	$	564.23
Annual Add'l Cost / EDU	$	2,256.90
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	1,089,966
Annual Debt Service	$	83,186
Total Billing Units (EDUs) [(2)]		23
Monthly Add'l Cost / EDU	$	301.40
Quarterly Add'l Cost / EDU	**$**	**904.19**
Annual Add'l Cost / EDU	$	3,616.78
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost (first 5 Years)	$	228.41
Total Quarterly Cost (first 5 Years)	**$**	**685.22**
Total Annual Cost (first 5 Years)	$	2,740.86
Total Monthly Cost (next 15 Years)	$	341.73
Total Quarterly Cost (next 15 Years)	**$**	**1,025.18**
Total Annual Cost (next 15 Years)	$	4,100.74
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**4.19%**
Percent of MHI for Sewer Bill (next 15 Years)		6.27%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**1,101,020**	**$**	**1,101,020**
Legal / Administration / Financial (2%)	$	22,100	$	22,100
Engineering (10%)	$	110,100	$	110,100
Inspection (5%)	$	55,000	$	55,000
Contingency (10%)	$	110,100	$	110,100
Total Project Cost	**$**	**1,398,320**	**$**	**1,398,320**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		34		34
Township Tapping Fee	$	13,600	$	13,600
PENNVEST Grant	$	-	$	767,015
PENNVEST Loan	**$**	**1,384,720**	**$**	**617,705**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	62,876	$	28,048
Total Billing Units (EDUs)		34		34
Monthly Add'l Cost / EDU	$	154.11	$	68.75
Quarterly Add'l Cost / EDU	**$**	**462.32**	**$**	**206.24**
Annual Add'l Cost / EDU	$	1,849.28	$	824.94
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	38.33	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**	**$**	**40.33**
Total Monthly Cost	$	194.44	$	109.08
Total Quarterly Cost	**$**	**583.31**	**$**	**327.23**
Total Annual Cost	$	2,333.24	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**3.57%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,101,020**
Legal / Administration / Financial (2%)	$	22,100
Engineering (10%)	$	110,100
Inspection (5%)	$	55,000
Contingency (10%)	$	110,100
Total Project Cost	**$**	**1,398,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		34
Township Tapping Fee	$	13,600
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**1,384,720**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	55,162
Total Billing Units (EDUs)		34
Monthly Add'l Cost / EDU	$	135.20
Quarterly Add'l Cost / EDU	**$**	**405.60**
Annual Add'l Cost / EDU	$	1,622.41
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost	$	175.53
Total Quarterly Cost	**$**	**526.59**
Total Annual Cost	$	2,106.37
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**3.22%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17C: CRESSONA BASIN - EXTENSION NO 1 (Gordon Nagle Trail / Woodlawn Drive)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,101,020**
Legal / Administration / Financial (2%)	$	22,100
Engineering (10%)	$	110,100
Inspection (5%)	$	55,000
Contingency (10%)	$	110,100
Total Project Cost	**$**	**1,398,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		34
Township Tapping Fee	$	13,600
Conventional Bank Loan	**$**	**1,384,720**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	101,890
Total Billing Units (EDUs)		34
Monthly Add'l Cost / EDU	$	249.73
Quarterly Add'l Cost / EDU	**$**	**749.19**
Annual Add'l Cost / EDU	$	2,996.77
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost	$	290.06
Total Quarterly Cost	**$**	**870.18**
Total Annual Cost	$	3,480.73
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**5.32%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	85	$ 140.00	$ 11,900.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	-	$ 160.00	$ -
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	1	$ 4,250.00	$ 4,250.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	-	$ 600.00	$ -
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	70	$ 55.00	$ 3,850.00
5B	Unimproved Right-of-Way	SY	-	$ 30.00	$ -
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	2,880	$ 120.00	$ 345,600.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	925	$ 80.00	$ 74,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	18	$ 4,250.00	$ 76,500.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	2,585	$ 42.00	$ 108,570.00
9B	Unimproved Right-of-Way	SY	375	$ 25.00	$ 9,375.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	1,115	$ 100.00	$ 111,500.00
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	75	$ 80.00	$ 6,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	4	$ 4,250.00	$ 17,000.00
13	**Restoration**				
13A	Unimproved Easement	SY	925	$ 25.00	$ 23,125.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
14	**Miscellaneous Construction Items**				
14A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
14B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
14C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
14D	Mobilization and Closeout	%	5.00	$ 39,690.00	$ 39,690.00

COSTRUCTION COST	**$ 833,420**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 16,700
ENGINEERING (10%)	$ 83,300
INSPECTION (5%)	$ 41,600
CONTINGENCY (10%)	$ 83,300
PROJECT COST	**$ 1,058,320**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)

Project		
Total Construction Cost	**$**	**833,420**
Legal / Administration / Financial (2%)	$	16,700
Engineering (10%)	$	83,300
Inspection (5%)	$	41,600
Contingency (10%)	$	83,300
Total Project Cost	**$**	**1,058,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		38
Township Tapping Fee	$	15,200
Total Cost to Finance	**$**	**1,043,120**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**

Notes:

(1) Treatment Costs per EDU per Month are based on CBA current rate of $115.00 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$15,200	$0	$1,043,120	$126.76	$40.33	$167.09	3.06%
PENNVEST	1.000% for 25 yrs	$15,200	$0	$1,043,120	$103.87	$40.33	$144.20	2.64%
USDA Rural Development	2.5% for 40 yrs	$15,200	$0	$1,043,120	$91.13	$40.33	$131.46	2.41%
Conventional Bank Loan	4.000% for 20 yrs	$15,200	$0	$1,043,120	$168.32	$40.33	$208.65	3.83%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**833,420**
Legal / Administration / Financial (2%)	$	16,700
Engineering (10%)	$	83,300
Inspection (5%)	$	41,600
Contingency (10%)	$	83,300
Total Project Cost	**$**	**1,058,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		38
Township Tapping Fee	$	15,200
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**1,043,120**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	57,805
Total Billing Units (EDUs)		38
Monthly Add'l Cost / EDU	$	126.76
Quarterly Add'l Cost / EDU	$	380.29
Annual Add'l Cost / EDU	$	1,521.18
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	821,079
Annual Debt Service	$	62,665
Total Billing Units (EDUs) [(2)]		23
Monthly Add'l Cost / EDU	$	227.05
Quarterly Add'l Cost / EDU	**$**	**681.14**
Annual Add'l Cost / EDU	$	2,724.55
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost (first 5 Years)	$	167.09
Total Quarterly Cost (first 5 Years)	**$**	**501.28**
Total Annual Cost (first 5 Years)	$	2,005.14
Total Monthly Cost (next 15 Years)	$	267.38
Total Quarterly Cost (next 15 Years)	**$**	**802.13**
Total Annual Cost (next 15 Years)	$	3,208.51
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**3.06%**
Percent of MHI for Sewer Bill (next 15 Years)		4.90%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**833,420**	**$**	**833,420**
Legal / Administration / Financial (2%)	$	16,700	$	16,700
Engineering (10%)	$	83,300	$	83,300
Inspection (5%)	$	41,600	$	41,600
Contingency (10%)	$	83,300	$	83,300
Total Project Cost	**$**	**1,058,320**	**$**	**1,058,320**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		38		38
Township Tapping Fee	$	15,200	$	15,200
PENNVEST Grant	$	-	$	352,744
PENNVEST Loan	**$**	**1,043,120**	**$**	**690,376**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	47,365	$	31,348
Total Billing Units (EDUs)		38		38
Monthly Add'l Cost / EDU	$	103.87	$	68.75
Quarterly Add'l Cost / EDU	**$**	**311.61**	**$**	**206.24**
Annual Add'l Cost / EDU	$	1,246.44	$	824.94
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	38.33	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**	**$**	**40.33**
Total Monthly Cost	$	144.20	$	109.08
Total Quarterly Cost	**$**	**432.60**	**$**	**327.23**
Total Annual Cost	$	1,730.40	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.64%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**833,420**
Legal / Administration / Financial (2%)	$	16,700
Engineering (10%)	$	83,300
Inspection (5%)	$	41,600
Contingency (10%)	$	83,300
Total Project Cost	**$**	**1,058,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		38
Township Tapping Fee	$	15,200
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**1,043,120**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	41,554
Total Billing Units (EDUs)		38
Monthly Add'l Cost / EDU	$	91.13
Quarterly Add'l Cost / EDU	**$**	**273.38**
Annual Add'l Cost / EDU	$	1,093.53
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost	$	131.46
Total Quarterly Cost	**$**	**394.37**
Total Annual Cost	$	1,577.49
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**2.41%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17D: CRESSONA BASIN - EXTENSION NO 2 (Elmer Avenue / Morningside Drive)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**833,420**
Legal / Administration / Financial (2%)	$	16,700
Engineering (10%)	$	83,300
Inspection (5%)	$	41,600
Contingency (10%)	$	83,300
Total Project Cost	**$**	**1,058,320**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		38
Township Tapping Fee	$	15,200
Conventional Bank Loan	**$**	**1,043,120**
Debt Service @ 4.00% for first 20 Yrs [1]		
Annual Debt Service	$	76,755
Total Billing Units (EDUs)		38
Monthly Add'l Cost / EDU	$	168.32
Quarterly Add'l Cost / EDU	**$**	**504.96**
Annual Add'l Cost / EDU	$	2,019.86
Administration	$	2.00
Treatment Cost per EDU per Month	$	38.33
Additional Monthly Cost for O&M	**$**	**40.33**
Total Monthly Cost	$	208.65
Total Quarterly Cost	**$**	**625.95**
Total Annual Cost	$	2,503.82
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**3.83%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17E : SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	2,905	$ 140.00	$ 406,700.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	400	$ 160.00	$ 64,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	14	$ 4,250.00	$ 59,500.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	150	$ 600.00	$ 90,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	2,410	$ 55.00	$ 132,550.00
5B	Unimproved Right-of-Way	SY	160	$ 30.00	$ 4,800.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	925	$ 120.00	$ 111,000.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	100	$ 80.00	$ 8,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	5	$ 4,250.00	$ 21,250.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	760	$ 42.00	$ 31,920.00
9B	Unimproved Right-of-Way	SY	40	$ 25.00	$ 1,000.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	1,485	$ 100.00	$ 148,500.00
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	150	$ 80.00	$ 12,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	4	$ 4,250.00	$ 17,000.00
13	**Restoration**				
13A	Unimproved Easement	SY	1,275	$ 25.00	$ 31,875.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
14	**Miscellaneous Construction Items**				
14A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
14B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
14C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
14D	Mobilization and Closeout	%	5.00	$ 57,110.00	$ 57,110.00

COSTRUCTION COST	**$ 1,199,265**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 24,000
ENGINEERING (10%)	$ 119,900
INSPECTION (5%)	$ 59,900
CONTINGENCY (10%)	$ 119,900
PROJECT COST	**$ 1,522,965**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)

Project		
Total Construction Cost	**$**	**1,199,265**
Legal / Administration / Financial (2%)	$	24,000
Engineering (10%)	$	119,900
Inspection (5%)	$	59,900
Contingency (10%)	$	119,900
Total Project Cost	**$**	**1,522,965**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		25
Township Tapping Fee	$	10,000
Total Cost to Finance	**$**	**1,512,965**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$10,000	$0	$1,512,965	$279.47	$49.92	$329.39	6.04%
PENNVEST	1.000% for 25 yrs	$10,000	$0	$1,512,965	$229.00	$49.92	$278.92	5.11%
USDA Rural Development	2.5% for 40 yrs	$10,000	$0	$1,512,965	$200.90	$49.92	$250.82	4.60%
Conventional Bank Loan	4.000% for 20 yrs	$10,000	$0	$1,512,965	$371.09	$49.92	$421.01	7.72%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,199,265**
Legal / Administration / Financial (2%)	$	24,000
Engineering (10%)	$	119,900
Inspection (5%)	$	59,900
Contingency (10%)	$	119,900
Total Project Cost	**$**	**1,522,965**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		25
Township Tapping Fee	$	10,000
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**1,512,965**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	83,841
Total Billing Units (EDUs)		25
Monthly Add'l Cost / EDU	$	279.47
Quarterly Add'l Cost / EDU	$	838.41
Annual Add'l Cost / EDU	$	3,353.66
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	1,190,912
Annual Debt Service	$	90,890
Total Billing Units (EDUs) [(2)]		25
Monthly Add'l Cost / EDU	$	302.97
Quarterly Add'l Cost / EDU	**$**	**908.90**
Annual Add'l Cost / EDU	$	3,635.61
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	329.39
Total Quarterly Cost (first 5 Years)	**$**	**988.17**
Total Annual Cost (first 5 Years)	$	3,952.70
Total Monthly Cost (next 15 Years)	$	352.89
Total Quarterly Cost (next 15 Years)	**$**	**1,058.66**
Total Annual Cost (next 15 Years)	$	4,234.65
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**6.04%**
Percent of MHI for Sewer Bill (next 15 Years)		6.47%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**1,199,265**	**$**	**1,199,265**
Legal / Administration / Financial (2%)	$	24,000	$	24,000
Engineering (10%)	$	119,900	$	119,900
Inspection (5%)	$	59,900	$	59,900
Contingency (10%)	$	119,900	$	119,900
Total Project Cost	**$**	**1,522,965**	**$**	**1,522,965**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		25		25
Township Tapping Fee	$	10,000	$	10,000
PENNVEST Grant	$	-	$	1,122,131
PENNVEST Loan	**$**	**1,512,965**	**$**	**390,834**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	68,699	$	17,747
Total Billing Units (EDUs)		25		25
Monthly Add'l Cost / EDU	$	229.00	$	59.16
Quarterly Add'l Cost / EDU	**$**	**686.99**	**$**	**177.47**
Annual Add'l Cost / EDU	$	2,747.95	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	278.92	$	109.08
Total Quarterly Cost	**$**	**836.75**	**$**	**327.23**
Total Annual Cost	$	3,346.99	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**5.11%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,199,265**
Legal / Administration / Financial (2%)	$	24,000
Engineering (10%)	$	119,900
Inspection (5%)	$	59,900
Contingency (10%)	$	119,900
Total Project Cost	**$**	**1,522,965**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		25
Township Tapping Fee	$	10,000
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**1,512,965**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	60,271
Total Billing Units (EDUs)		25
Monthly Add'l Cost / EDU	$	200.90
Quarterly Add'l Cost / EDU	**$**	**602.71**
Annual Add'l Cost / EDU	$	2,410.83
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	250.82
Total Quarterly Cost	**$**	**752.47**
Total Annual Cost	$	3,009.87
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**4.60%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17E: SCHUYLKILL HAVEN BASIN - EXTENSION NO 1 (Long Run Road)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,199,265**
Legal / Administration / Financial (2%)	$	24,000
Engineering (10%)	$	119,900
Inspection (5%)	$	59,900
Contingency (10%)	$	119,900
Total Project Cost	**$**	**1,522,965**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		25
Township Tapping Fee	$	10,000
Conventional Bank Loan	**$**	**1,512,965**
Debt Service @ 4.00% for first 20 Yrs [1]		
Annual Debt Service	$	111,327
Total Billing Units (EDUs)		25
Monthly Add'l Cost / EDU	$	371.09
Quarterly Add'l Cost / EDU	**$**	**1,113.27**
Annual Add'l Cost / EDU	$	4,453.06
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	421.01
Total Quarterly Cost	**$**	**1,263.03**
Total Annual Cost	$	5,052.10
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**7.72%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17F : SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	4,325	$ 140.00	$ 605,500.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	950	$ 160.00	$ 152,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	15	$ 4,250.00	$ 63,750.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	-	$ 600.00	$ -
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	3,720	$ 55.00	$ 204,600.00
5B	Unimproved Right-of-Way	SY	385	$ 30.00	$ 11,550.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	15,065	$ 120.00	$ 1,807,800.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	2,150	$ 80.00	$ 172,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	53	$ 4,250.00	$ 225,250.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	12,525	$ 42.00	$ 526,050.00
9B	Unimproved Right-of-Way	SY	875	$ 25.00	$ 21,875.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	1,275	$ 100.00	$ 127,500.00
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	350	$ 80.00	$ 28,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	4	$ 4,250.00	$ 17,000.00
13	**Restoration**				
13A	Unimproved Easement	SY	1,265	$ 25.00	$ 31,625.00
SPECIAL CONSTRUCTION					
14	**Metering Manhole**				
14A	Palmer-Bowles Flume with Flow Metering / Datalogging Capabilities	EA	1	$ 35,000.00	$ 35,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
15	**Miscellaneous Construction Items**				
15A	Miscellaneous Unclassified Excavation	CY	100	$ 40.00	$ 4,000.00
15B	Mescellaneous Stone in Place	TN	40	$ 37.00	$ 1,480.00
15C	Miscellaneous Plain Concrete	CY	15	$ 230.00	$ 3,450.00
15D	Mobilization and Closeout	%	5.00	$ 201,930.00	$ 201,930.00

COSTRUCTION COST	**$ 4,240,360**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 84,900
ENGINEERING (10%)	$ 424,000
INSPECTION (5%)	$ 212,000
CONTINGENCY (10%)	$ 424,000
PROJECT COST	**$ 5,385,260**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)

Project		
Total Construction Cost	**$**	**4,240,360**
Legal / Administration / Financial (2%)	$	84,900
Engineering (10%)	$	424,000
Inspection (5%)	$	4,240,360
Contingency (10%)	$	424,000
Total Project Cost	**$**	**9,413,620**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		138
Township Tapping Fee	$	55,200
Total Cost to Finance	**$**	**9,358,420**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$55,200	$0	$9,358,420	$313.16	$49.92	$363.08	6.66%
PENNVEST	1.000% for 25 yrs	$55,200	$0	$9,358,420	$256.60	$49.92	$306.52	5.62%
USDA Rural Development	2.5% for 40 yrs	$55,200	$0	$9,358,420	$225.12	$49.92	$275.04	5.04%
Conventional Bank Loan	4.000% for 20 yrs	$55,200	$0	$9,358,420	$415.83	$49.92	$465.75	8.54%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**4,240,360**
Legal / Administration / Financial (2%)	$	84,900
Engineering (10%)	$	424,000
Inspection (5%)	$	4,240,360
Contingency (10%)	$	424,000
Total Project Cost	**$**	**9,413,620**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		138
Township Tapping Fee	$	55,200
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**9,358,420**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	518,600
Total Billing Units (EDUs)		138
Monthly Add'l Cost / EDU	$	313.16
Quarterly Add'l Cost / EDU	$	939.49
Annual Add'l Cost / EDU	$	3,757.97
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	7,366,367
Annual Debt Service	$	562,199
Total Billing Units (EDUs) [(2)]		138
Monthly Add'l Cost / EDU	$	339.49
Quarterly Add'l Cost / EDU	**$**	**1,018.48**
Annual Add'l Cost / EDU	$	4,073.91
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	363.08
Total Quarterly Cost (first 5 Years)	**$**	**1,089.25**
Total Annual Cost (first 5 Years)	$	4,357.01
Total Monthly Cost (next 15 Years)	$	389.41
Total Quarterly Cost (next 15 Years)	**$**	**1,168.24**
Total Annual Cost (next 15 Years)	$	4,672.95
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**6.66%**
Percent of MHI for Sewer Bill (next 15 Years)		7.14%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**4,240,360**	**$**	**4,240,360**
Legal / Administration / Financial (2%)	$	84,900	$	84,900
Engineering (10%)	$	424,000	$	424,000
Inspection (5%)	$	4,240,360	$	4,240,360
Contingency (10%)	$	424,000	$	424,000
Total Project Cost	**$**	**9,413,620**	**$**	**9,413,620**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		138		138
Township Tapping Fee	$	55,200	$	55,200
PENNVEST Grant	$	-	$	7,201,017
PENNVEST Loan	**$**	**9,358,420**	**$**	**2,157,403**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	424,935	$	97,961
Total Billing Units (EDUs)		138		138
Monthly Add'l Cost / EDU	$	256.60	$	59.16
Quarterly Add'l Cost / EDU	**$**	**769.81**	**$**	**177.47**
Annual Add'l Cost / EDU	$	3,079.24	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	306.52	$	109.08
Total Quarterly Cost	**$**	**919.57**	**$**	**327.23**
Total Annual Cost	$	3,678.28	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**5.62%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**4,240,360**
Legal / Administration / Financial (2%)	$	84,900
Engineering (10%)	$	424,000
Inspection (5%)	$	4,240,360
Contingency (10%)	$	424,000
Total Project Cost	**$**	**9,413,620**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		138
Township Tapping Fee	$	55,200
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**9,358,420**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	372,804
Total Billing Units (EDUs)		138
Monthly Add'l Cost / EDU	$	225.12
Quarterly Add'l Cost / EDU	**$**	**675.37**
Annual Add'l Cost / EDU	$	2,701.48
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	275.04
Total Quarterly Cost	**$**	**825.13**
Total Annual Cost	$	3,300.52
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**5.04%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17F: SCHUYLKILL HAVEN BASIN - EXTENSION NO 2 (Schuylkill Haven / Fairlawn)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**4,240,360**
Legal / Administration / Financial (2%)	$	84,900
Engineering (10%)	$	424,000
Inspection (5%)	$	4,240,360
Contingency (10%)	$	424,000
Total Project Cost	**$**	**9,413,620**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		138
Township Tapping Fee	$	55,200
Conventional Bank Loan	**$**	**9,358,420**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	688,609
Total Billing Units (EDUs)		138
Monthly Add'l Cost / EDU	$	415.83
Quarterly Add'l Cost / EDU	**$**	**1,247.48**
Annual Add'l Cost / EDU	$	4,989.92
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	465.75
Total Quarterly Cost	**$**	**1,397.24**
Total Annual Cost	$	5,588.96
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**8.54%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17G: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsburg)

Client: North Manheim Township Authority **Prepared By:** MJP **Date:** 12/12/2017
Project No.: **Checked By:** **Date:**
Project Name: Manheim Road Extension

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	-	$ 140.00	$ -
1B	Township Cartway/Private Driveway	LF	45	$ 120.00	$ 5,400.00
1C	Lawn/Open Space	LF	192	$ 100.00	$ 19,200.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	Township Right-of-Way (Assume 10 LF Each Building)	LF	40	$ 80.00	$ 3,200.00
5	**4-FT Diameter Standard Manhole**				
5A	PENNDOT Cartway, Unclassified Depth	EA	-	$ 5,000.00	$ -
5B	Township Cartway/Private Driveway, Unclassified Depth	EA	-	$ 4,250.00	$ -
5C	Lawn/Open Space, Unclassified Depth	EA	1	$ 4,000.00	$ 4,000.00
6	**Restoration**				
6A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	-	$ 55.00	$ -
6B	Township Cartway/Private Driveway (5.5-in Base Course + 1.5-in Wearing)	SY	33	$ 42.00	$ 1,400.00
6C	Unimproved Right-of-Way	SY	190	$ 25.00	$ 4,800.00
GENERAL CONSTRUCTION					
6	**Miscellaneous Construction Items**				
6A	Miscellaneous Unclassified Excavation	CY	5	$ 40.00	$ 200.00
6B	Mescellaneous Stone in Place	TN	1	$ 37.00	$ 100.00
6C	Miscellaneous Plain Concrete	CY	-	$ 230.00	$ -
6D	Mobilization and Closeout	%	14.00	$ 5,370.00	$ 5,400.00

COSTRUCTION COST	**$ 43,700**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 900
ENGINEERING (10%)	$ 4,300
INSPECTION (5%)	$ 2,100
CONTINGENCY (10%)	$ 4,300
PROJECT COST	**$ 55,300**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)

Project		
Total Construction Cost	**$**	**159,600**
Legal / Administration / Financial (2%)	$	3,200
Engineering (10%)	$	15,900
Inspection (5%)	$	7,900
Contingency (10%)	$	15,900
Total Project Cost	**$**	**202,500**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
Total Cost to Finance	**$**	**199,700**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$2,800	$0	$199,700	$131.74	$49.92	$181.66	3.33%
PENNVEST	1.000% for 25 yrs	$2,800	$0	$199,700	$107.95	$49.92	$157.87	2.89%
USDA Rural Development	2.5% for 40 yrs	$2,800	$0	$199,700	$94.71	$49.92	$144.63	2.65%
Conventional Bank Loan	4.000% for 20 yrs	$2,800	$0	$199,700	$174.93	$49.92	$224.85	4.12%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**159,600**
Legal / Administration / Financial (2%)	$	3,200
Engineering (10%)	$	15,900
Inspection (5%)	$	7,900
Contingency (10%)	$	15,900
Total Project Cost	**$**	**202,500**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**199,700**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	11,066
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	131.74
Quarterly Add'l Cost / EDU	$	395.23
Annual Add'l Cost / EDU	$	1,580.92
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	157,191
Annual Debt Service	$	11,997
Total Billing Units (EDUs) [(2)]		7
Monthly Add'l Cost / EDU	$	142.82
Quarterly Add'l Cost / EDU	**$**	**428.46**
Annual Add'l Cost / EDU	$	1,713.83
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	181.66
Total Quarterly Cost (first 5 Years)	**$**	**544.99**
Total Annual Cost (first 5 Years)	$	2,179.96
Total Monthly Cost (next 15 Years)	$	192.74
Total Quarterly Cost (next 15 Years)	**$**	**578.22**
Total Annual Cost (next 15 Years)	$	2,312.87
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**3.33%**
Percent of MHI for Sewer Bill (next 15 Years)		3.53%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**159,600**	**$**	**159,600**
Legal / Administration / Financial (2%)	$	3,200	$	3,200
Engineering (10%)	$	15,900	$	15,900
Inspection (5%)	$	7,900	$	7,900
Contingency (10%)	$	15,900	$	15,900
Total Project Cost	**$**	**202,500**	**$**	**202,500**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		7		7
Township Tapping Fee	$	2,800	$	2,800
PENNVEST Grant	$	-	$	90,266
PENNVEST Loan	**$**	**199,700**	**$**	**109,434**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	9,068	$	4,969
Total Billing Units (EDUs)		7		7
Monthly Add'l Cost / EDU	$	107.95	$	59.16
Quarterly Add'l Cost / EDU	**$**	**323.85**	**$**	**177.47**
Annual Add'l Cost / EDU	$	1,295.39	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	157.87	$	109.08
Total Quarterly Cost	**$**	**473.61**	**$**	**327.23**
Total Annual Cost	$	1,894.43	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.89%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**159,600**
Legal / Administration / Financial (2%)	$	3,200
Engineering (10%)	$	15,900
Inspection (5%)	$	7,900
Contingency (10%)	$	15,900
Total Project Cost	**$**	**202,500**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**199,700**
Debt Service @ 2.5% for first 40 Yrs [(1)]		
Annual Debt Service	$	7,955
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	94.71
Quarterly Add'l Cost / EDU	**$**	**284.12**
Annual Add'l Cost / EDU	$	1,136.47
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	144.63
Total Quarterly Cost	**$**	**433.88**
Total Annual Cost	$	1,735.51
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**2.65%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17G: SCHUYLKILL HAVEN BASIN - EXTENSION NO 3 (Spring Street)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**159,600**
Legal / Administration / Financial (2%)	$	3,200
Engineering (10%)	$	15,900
Inspection (5%)	$	7,900
Contingency (10%)	$	15,900
Total Project Cost	**$**	**202,500**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		7
Township Tapping Fee	$	2,800
Conventional Bank Loan	**$**	**199,700**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	14,694
Total Billing Units (EDUs)		7
Monthly Add'l Cost / EDU	$	174.93
Quarterly Add'l Cost / EDU	**$**	**524.80**
Annual Add'l Cost / EDU	$	2,099.18
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	224.85
Total Quarterly Cost	**$**	**674.56**
Total Annual Cost	$	2,698.22
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**4.12%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17H: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsburg)

Client: North Manheim Township Authority **Prepared By:** MJP **Date:** 12/12/2017
Project No.: **Checked By:** **Date:**
Project Name: Manheim Road Extension

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	-	$ 140.00	$ -
1B	Township Cartway/Private Driveway	LF	695	$ 120.00	$ 83,400.00
1C	Lawn/Open Space	LF	-	$ 100.00	$ -
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	Township Right-of-Way (Assume 25 LF Each Building)	LF	175	$ 80.00	$ 14,000.00
5	**4-FT Diameter Standard Manhole**				
5A	PENNDOT Cartway, Unclassified Depth	EA	1	$ 5,000.00	$ 5,000.00
5B	Township Cartway/Private Driveway, Unclassified Depth	EA	3	$ 4,250.00	$ 12,800.00
5C	Lawn/Open Space, Unclassified Depth	EA	-	$ 4,000.00	$ -
6	**Restoration**				
6A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	-	$ 55.00	$ -
6B	Township Cartway/Private Driveway (5.5-in Base Course + 1.5-in Wearing)	SY	561	$ 42.00	$ 23,600.00
6C	Unimproved Right-of-Way	SY	34	$ 25.00	$ 900.00
GENERAL CONSTRUCTION					
6	**Miscellaneous Construction Items**				
6A	Miscellaneous Unclassified Excavation	CY	5	$ 40.00	$ 200.00
6B	Mescellaneous Stone in Place	TN	1	$ 37.00	$ 100.00
6C	Miscellaneous Plain Concrete	CY	-	$ 230.00	$ -
6D	Mobilization and Closeout	%	14.00	$ 19,600.00	$ 19,600.00

COSTRUCTION COST	**$ 159,600**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 3,200
ENGINEERING (10%)	$ 15,900
INSPECTION (5%)	$ 7,900
CONTINGENCY (10%)	$ 15,900
PROJECT COST	**$ 202,500**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)

Project		
Total Construction Cost	**$**	**43,700**
Legal / Administration / Financial (2%)	$	900
Engineering (10%)	$	4,300
Inspection (5%)	$	2,100
Contingency (10%)	$	4,300
Total Project Cost	**$**	**55,300**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		3
Township Tapping Fee	$	1,200
Total Cost to Finance	**$**	**54,100**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$1,200	$0	$54,100	$83.28	$49.92	$133.20	2.44%
PENNVEST	1.000% for 25 yrs	$1,200	$0	$54,100	$68.24	$49.92	$118.16	2.17%
USDA Rural Development	2.5% for 40 yrs	$1,200	$0	$54,100	$59.87	$49.92	$109.79	2.01%
Conventional Bank Loan	4.000% for 20 yrs	$1,200	$0	$54,100	$110.58	$49.92	$160.50	2.94%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**43,700**
Legal / Administration / Financial (2%)	$	900
Engineering (10%)	$	4,300
Inspection (5%)	$	2,100
Contingency (10%)	$	4,300
Total Project Cost	**$**	**55,300**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		3
Township Tapping Fee	$	1,200
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**54,100**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	2,998
Total Billing Units (EDUs)		3
Monthly Add'l Cost / EDU	$	83.28
Quarterly Add'l Cost / EDU	$	249.83
Annual Add'l Cost / EDU	$	999.32
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	42,584
Annual Debt Service	$	3,250
Total Billing Units (EDUs) [(2)]		3
Monthly Add'l Cost / EDU	$	90.28
Quarterly Add'l Cost / EDU	**$**	**270.83**
Annual Add'l Cost / EDU	$	1,083.34
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	133.20
Total Quarterly Cost (first 5 Years)	**$**	**399.59**
Total Annual Cost (first 5 Years)	$	1,598.36
Total Monthly Cost (next 15 Years)	$	140.20
Total Quarterly Cost (next 15 Years)	**$**	**420.59**
Total Annual Cost (next 15 Years)	$	1,682.38
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.44%**
Percent of MHI for Sewer Bill (next 15 Years)		2.57%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)
1 PERCENT FOR 25 YEAR TERM

	WITHOUT GRANT FUNDING	WITH GRANT FUNDING
Project		
Total Construction Cost	**$ 43,700**	**$ 43,700**
Legal / Administration / Financial (2%)	$ 900	$ 900
Engineering (10%)	$ 4,300	$ 4,300
Inspection (5%)	$ 2,100	$ 2,100
Contingency (10%)	$ 4,300	$ 4,300
Total Project Cost	**$ 55,300**	**$ 55,300**
Funding Sources		
Tapping Fee Rate	$ 400.00	$ 400.00
Equivalent Dwelling Units	3	3
Township Tapping Fee	$ 1,200	$ 1,200
PENNVEST Grant	$ -	$ 7,196
PENNVEST Loan	**$ 54,100**	**$ 46,904**
Debt Service @ 1.000% for first 25 Yrs [1]		
Annual Debt Service	$ 2,457	$ 2,130
Total Billing Units (EDUs)	3	3
Monthly Add'l Cost / EDU	$ 68.24	$ 59.16
Quarterly Add'l Cost / EDU	**$ 204.71**	**$ 177.48**
Annual Add'l Cost / EDU	$ 818.84	$ 709.92
Administration	$ 2.00	$ 2.00
Treatment Cost per EDU per Month	$ 47.92	$ 47.92
Additional Monthly Cost for O&M	**$ 49.92**	**$ 49.92**
Total Monthly Cost	$ 118.16	$ 109.08
Total Quarterly Cost	**$ 354.47**	**$ 327.24**
Total Annual Cost	$ 1,417.88	$ 1,308.96
Median Household Income [2]	$ 65,445	$ 65,445
Percent of MHI for Sewer Bill	**2.17%**	**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**43,700**
Legal / Administration / Financial (2%)	$	900
Engineering (10%)	$	4,300
Inspection (5%)	$	2,100
Contingency (10%)	$	4,300
Total Project Cost	**$**	**55,300**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		3
Township Tapping Fee	$	1,200
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**54,100**
Debt Service @ 2.5% for first 40 Yrs [(1)]		
Annual Debt Service	$	2,155
Total Billing Units (EDUs)		3
Monthly Add'l Cost / EDU	$	59.87
Quarterly Add'l Cost / EDU	**$**	**179.60**
Annual Add'l Cost / EDU	$	718.38
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	109.79
Total Quarterly Cost	**$**	**329.36**
Total Annual Cost	$	1,317.42
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**2.01%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17H: SCHUYLKILL HAVEN BASIN - EXTENSION NO 4 (Manheim Road)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**43,700**
Legal / Administration / Financial (2%)	$	900
Engineering (10%)	$	4,300
Inspection (5%)	$	2,100
Contingency (10%)	$	4,300
Total Project Cost	**$**	**55,300**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		3
Township Tapping Fee	$	1,200
Conventional Bank Loan	**$**	**54,100**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	3,981
Total Billing Units (EDUs)		3
Monthly Add'l Cost / EDU	$	110.58
Quarterly Add'l Cost / EDU	**$**	**331.73**
Annual Add'l Cost / EDU	$	1,326.92
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	160.50
Total Quarterly Cost	**$**	**481.49**
Total Annual Cost	$	1,925.96
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**2.94%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	800	$ 140.00	$ 112,000.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	200	$ 160.00	$ 32,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	5	$ 4,250.00	$ 21,250.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	95	$ 600.00	$ 57,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	700	$ 55.00	$ 38,500.00
5B	Unimproved Right-of-Way	SY	80	$ 30.00	$ 2,400.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	3,685	$ 120.00	$ 442,200.00
7	**6-in DIP Force Main Pipe**				
7A	Township Cartway	LF	2,925	$ 110.00	$ 321,750.00
8	**6-in SDR-26 Sanitary Sewer Pipe**				
8A	Township Right-of-Way (Assume 25 LF Each Building)	LF	400	$ 80.00	$ 32,000.00
9	**4-FT Diameter Standard Manhole**				
9A	Township Cartway	EA	20	$ 4,250.00	$ 85,000.00
10	**Restoration**				
10A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	5,290	$ 42.00	$ 222,180.00
10B	Unimproved Right-of-Way	SY	160	$ 25.00	$ 4,000.00
SPECIAL CONSTRUCTION					
11	**Pump Station**				
11A	Admansdale PS (Submersible Grinder Station with Generator, Metering, etc.)	LS	1	$ 175,000.00	$ 175,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
12	**Miscellaneous Construction Items**				
12A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
12B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
12C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
12D	Mobilization and Closeout	%	5.00	$ 77,370.00	$ 77,370.00

COSTRUCTION COST	**$ 1,624,710**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 32,500
ENGINEERING (10%)	$ 162,400
INSPECTION (5%)	$ 81,200
CONTINGENCY (10%)	$ 162,400
PROJECT COST	**$ 2,063,210**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive)

Project		
Total Construction Cost	**$**	**1,624,710**
Legal / Administration / Financial (2%)	$	32,500
Engineering (10%)	$	162,400
Inspection (5%)	$	81,200
Contingency (10%)	$	162,400
Total Project Cost	**$**	**2,063,210**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		26
Township Tapping Fee	$	10,400
Total Cost to Finance	**$**	**2,052,810**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$10,400	$0	$2,052,810	$364.61	$49.92	$414.53	7.60%
PENNVEST	1.000% for 25 yrs	$10,400	$0	$2,052,810	$298.75	$49.92	$348.67	6.39%
USDA Rural Development	2.5% for 40 yrs	$10,400	$0	$2,052,810	$262.10	$49.92	$312.02	5.72%
Conventional Bank Loan	4.000% for 20 yrs	$10,400	$0	$2,052,810	$484.13	$49.92	$534.05	9.79%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

AP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Dri
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,624,710**
Legal / Administration / Financial (2%)	$	32,500
Engineering (10%)	$	162,400
Inspection (5%)	$	81,200
Contingency (10%)	$	162,400
Total Project Cost	**$**	**2,063,210**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		26
Township Tapping Fee	$	10,400
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**2,052,810**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	113,757
Total Billing Units (EDUs)		26
Monthly Add'l Cost / EDU	$	364.61
Quarterly Add'l Cost / EDU	$	1,093.82
Annual Add'l Cost / EDU	$	4,375.27
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	1,615,844
Annual Debt Service	$	123,321
Total Billing Units (EDUs) [(2)]		26
Monthly Add'l Cost / EDU	$	395.26
Quarterly Add'l Cost / EDU	**$**	**1,185.78**
Annual Add'l Cost / EDU	$	4,743.11
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	414.53
Total Quarterly Cost (first 5 Years)	**$**	**1,243.58**
Total Annual Cost (first 5 Years)	$	4,974.31
Total Monthly Cost (next 15 Years)	$	445.18
Total Quarterly Cost (next 15 Years)	**$**	**1,335.54**
Total Annual Cost (next 15 Years)	$	5,342.15
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**7.60%**
Percent of MHI for Sewer Bill (next 15 Years)		8.16%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**1,624,710**	**$**	**1,624,710**
Legal / Administration / Financial (2%)	$	32,500	$	32,500
Engineering (10%)	$	162,400	$	162,400
Inspection (5%)	$	81,200	$	81,200
Contingency (10%)	$	162,400	$	162,400
Total Project Cost	**$**	**2,063,210**	**$**	**2,063,210**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		26		26
Township Tapping Fee	$	10,400	$	10,400
PENNVEST Grant	$	-	$	1,646,343
PENNVEST Loan	**$**	**2,052,810**	**$**	**406,467**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	93,211	$	18,456
Total Billing Units (EDUs)		26		26
Monthly Add'l Cost / EDU	$	298.75	$	59.16
Quarterly Add'l Cost / EDU	**$**	**896.26**	**$**	**177.47**
Annual Add'l Cost / EDU	$	3,585.06	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	348.67	$	109.08
Total Quarterly Cost	**$**	**1,046.02**	**$**	**327.23**
Total Annual Cost	$	4,184.10	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**6.39%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,624,710**
Legal / Administration / Financial (2%)	$	32,500
Engineering (10%)	$	162,400
Inspection (5%)	$	81,200
Contingency (10%)	$	162,400
Total Project Cost	**$**	**2,063,210**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		26
Township Tapping Fee	$	10,400
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**2,052,810**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	81,776
Total Billing Units (EDUs)		26
Monthly Add'l Cost / EDU	$	262.10
Quarterly Add'l Cost / EDU	**$**	**786.31**
Annual Add'l Cost / EDU	$	3,145.24
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	312.02
Total Quarterly Cost	**$**	**936.07**
Total Annual Cost	$	3,744.28
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**5.72%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17I: SCHUYLKILL HAVEN BASIN - EXTENSION NO 5 (Adamsdale Road/Memorial Drive)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,624,710**
Legal / Administration / Financial (2%)	$	32,500
Engineering (10%)	$	162,400
Inspection (5%)	$	81,200
Contingency (10%)	$	162,400
Total Project Cost	**$**	**2,063,210**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		26
Township Tapping Fee	$	10,400
Conventional Bank Loan	**$**	**2,052,810**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	151,049
Total Billing Units (EDUs)		26
Monthly Add'l Cost / EDU	$	484.13
Quarterly Add'l Cost / EDU	**$**	**1,452.40**
Annual Add'l Cost / EDU	$	5,809.59
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	534.05
Total Quarterly Cost	**$**	**1,602.16**
Total Annual Cost	$	6,408.63
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**9.79%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	8,085	$ 140.00	$ 1,131,900.00
1	**6-in DIP Force Main Pipe**				
1A	PENNDOT Cartway	LF	950	$ 135.00	$ 128,250.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	675	$ 160.00	$ 108,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	33	$ 4,250.00	$ 140,250.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	160	$ 600.00	$ 96,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	6,615	$ 55.00	$ 363,825.00
5B	Unimproved Right-of-Way	SY	275	$ 30.00	$ 8,250.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	16,155	$ 120.00	$ 1,938,600.00
1	**6-in DIP Force Main Pipe**				
1A	Township Cartway	LF	475	$ 110.00	$ 52,250.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	2,675	$ 80.00	$ 214,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	62	$ 4,250.00	$ 263,500.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	13,935	$ 42.00	$ 585,270.00
9B	Unimproved Right-of-Way	SY	1,080	$ 25.00	$ 27,000.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	2,470	$ 100.00	$ 247,000.00
1	**6-in DIP Force Main Pipe**				
1A	Unimproved Easement	LF	5,155	$ 85.00	$ 438,175.00
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	100	$ 80.00	$ 8,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	5	$ 4,250.00	$ 21,250.00
13	**Restoration**				
13A	Unimproved Easement	SY	6,000	$ 25.00	$ 150,000.00
SPECIAL CONSTRUCTION					
14	**Pump Station**				
14A	Submersible Grinder Pump Station with Generator, Flow Metering, etc.	LS	1	$ 525,000.00	$ 525,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
15	**Miscellaneous Construction Items**				
15A	Miscellaneous Unclassified Excavation	CY	100	$ 40.00	$ 4,000.00
15B	Mescellaneous Stone in Place	TN	40	$ 37.00	$ 1,480.00
15C	Miscellaneous Plain Concrete	CY	15	$ 230.00	$ 3,450.00
15D	Mobilization and Closeout	%	5.00	$ 322,780.00	$ 322,780.00

COSTRUCTION COST	**$ 6,778,230**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 135,600
ENGINEERING (10%)	$ 677,800
INSPECTION (5%)	$ 338,900
CONTINGENCY (10%)	$ 677,800
PROJECT COST	**$ 8,608,330**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)

Project		
Total Construction Cost	**$**	**6,778,230**
Legal / Administration / Financial (2%)	$	135,600
Engineering (10%)	$	677,800
Inspection (5%)	$	338,900
Contingency (10%)	$	677,800
Total Project Cost	**$**	**8,608,330**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
Total Cost to Finance	**$**	**8,411,530**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$196,800	$0	$8,411,530	$78.95	$49.92	$128.87	2.36%
PENNVEST	1.000% for 25 yrs	$196,800	$0	$8,411,530	$64.69	$49.92	$114.61	2.10%
USDA Rural Development	2.5% for 40 yrs	$196,800	$0	$8,411,530	$56.76	$49.92	$106.68	1.96%
Conventional Bank Loan	4.000% for 20 yrs	$196,800	$0	$8,411,530	$104.83	$49.92	$154.75	2.84%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,778,230**
Legal / Administration / Financial (2%)	$	135,600
Engineering (10%)	$	677,800
Inspection (5%)	$	338,900
Contingency (10%)	$	677,800
Total Project Cost	**$**	**8,608,330**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**8,411,530**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	466,128
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	78.95
Quarterly Add'l Cost / EDU	$	236.85
Annual Add'l Cost / EDU	$	947.41
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	6,621,034
Annual Debt Service	$	505,316
Total Billing Units (EDUs) [(2)]		492
Monthly Add'l Cost / EDU	$	85.59
Quarterly Add'l Cost / EDU	**$**	**256.77**
Annual Add'l Cost / EDU	$	1,027.06
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	128.87
Total Quarterly Cost (first 5 Years)	**$**	**386.61**
Total Annual Cost (first 5 Years)	$	1,546.45
Total Monthly Cost (next 15 Years)	$	135.51
Total Quarterly Cost (next 15 Years)	**$**	**406.53**
Total Annual Cost (next 15 Years)	$	1,626.10
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.36%**
Percent of MHI for Sewer Bill (next 15 Years)		2.48%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**6,778,230**	**$**	**6,778,230**
Legal / Administration / Financial (2%)	$	135,600	$	135,600
Engineering (10%)	$	677,800	$	677,800
Inspection (5%)	$	338,900	$	338,900
Contingency (10%)	$	677,800	$	677,800
Total Project Cost	**$**	**8,608,330**	**$**	**8,608,330**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		492		492
Township Tapping Fee	$	196,800	$	196,800
PENNVEST Grant	$	-	$	1,135,976
PENNVEST Loan	**$**	**8,411,530**	**$**	**7,275,554**
Debt Service @ 1.000% for first 25 Yrs [(1)]				
Annual Debt Service	$	381,940	$	330,359
Total Billing Units (EDUs)		492		492
Monthly Add'l Cost / EDU	$	64.69	$	55.96
Quarterly Add'l Cost / EDU	**$**	**194.08**	**$**	**167.87**
Annual Add'l Cost / EDU	$	776.30	$	671.46
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	114.61	$	105.88
Total Quarterly Cost	**$**	**343.84**	**$**	**317.63**
Total Annual Cost	$	1,375.34	$	1,270.50
Median Household Income [(2)]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.10%**		**1.94%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,778,230**
Legal / Administration / Financial (2%)	$	135,600
Engineering (10%)	$	677,800
Inspection (5%)	$	338,900
Contingency (10%)	$	677,800
Total Project Cost	**$**	**8,608,330**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**8,411,530**
Debt Service @ 2.5% for first 40 Yrs [(1)]		
Annual Debt Service	$	335,084
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	56.76
Quarterly Add'l Cost / EDU	**$**	**170.27**
Annual Add'l Cost / EDU	$	681.06
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	106.68
Total Quarterly Cost	**$**	**320.03**
Total Annual Cost	$	1,280.10
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**1.96%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17J: ORWIGSBURG BASIN - EXTENSION NO 1A (Renninger's to Schuylkill Haven)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,778,230**
Legal / Administration / Financial (2%)	$	135,600
Engineering (10%)	$	677,800
Inspection (5%)	$	338,900
Contingency (10%)	$	677,800
Total Project Cost	**$**	**8,608,330**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
Conventional Bank Loan	**$**	**8,411,530**
Debt Service @ 4.00% for first 20 Yrs (1)		
Annual Debt Service	$	618,935
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	104.83
Quarterly Add'l Cost / EDU	**$**	**314.50**
Annual Add'l Cost / EDU	$	1,258.00
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	154.75
Total Quarterly Cost	**$**	**464.26**
Total Annual Cost	$	1,857.04
Median Household Income (2)	$	65,445
Percent of MHI for New Bill		**2.84%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill Haven)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	9,980	$ 140.00	$ 1,397,200.00
2	**6-in DIP Force Main Pipe**				
2A	PENNDOT Cartway	LF	6,334	$ 135.00	$ 855,090.00
3	**6-in SDR-26 Sanitary Sewer Pipe**				
3A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	975	$ 160.00	$ 156,000.00
4	**4-FT Diameter Standard Manhole**				
4A	PENNDOT Cartway	EA	40	$ 4,250.00	$ 170,000.00
5	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
5A	Boring	LF	160	$ 600.00	$ 96,000.00
6	**Restoration**				
6A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	13,050	$ 55.00	$ 717,750.00
6B	Unimproved Right-of-Way	SY	395	$ 30.00	$ 11,850.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
7	**8-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Cartway	LF	23,770	$ 120.00	$ 2,852,400.00
8	**6-in DIP Force Main Pipe**				
8A	Township Cartway	LF	475	$ 110.00	$ 52,250.00
9	**6-in SDR-26 Sanitary Sewer Pipe**				
9A	Township Right-of-Way (Assume 25 LF Each Building)	LF	4,225	$ 80.00	$ 338,000.00
10	**4-FT Diameter Standard Manhole**				
10A	Township Cartway	EA	84	$ 4,250.00	$ 357,000.00
11	**Restoration**				
11A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	20,435	$ 42.00	$ 858,270.00
11B	Unimproved Right-of-Way	SY	1,710	$ 25.00	$ 42,750.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
12	**8-in SDR-26 Sanitary Sewer Pipe**				
12A	Lawn/Open Space	LF	3,000	$ 100.00	$ 300,000.00
13	**6-in DIP Force Main Pipe**				
13A	Unimproved Easement	LF	5,155	$ 85.00	$ 438,175.00
14	**6-in SDR-26 Sanitary Sewer Pipe**				
14A	Unimproved Easement (Assume 25 LF Each Building)	LF	150	$ 80.00	$ 12,000.00
15	**4-FT Diameter Standard Manhole**				
15A	Unimproved Easement	EA	7	$ 4,250.00	$ 29,750.00
16	**Restoration**				
16A	Unimproved Easement	SY	6,460	$ 25.00	$ 161,500.00
SPECIAL CONSTRUCTION					
17	**Pump Station**				
17A	Renninger's PS (Submersible Grinder Station with Generator, Metering, etc.)	LS	1	$ 525,000.00	$ 525,000.00
17B	Adamsdale PS (Submersible Grinder Station with Generator, Metering, etc.)	LS	1	$ 325,000.00	$ 325,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
18	**Miscellaneous Construction Items**				
18A	Miscellaneous Unclassified Excavation	CY	150	$ 40.00	$ 6,000.00
18B	Mescellaneous Stone in Place	TN	60	$ 37.00	$ 2,220.00
18C	Miscellaneous Plain Concrete	CY	30	$ 230.00	$ 6,900.00
18D	Mobilization and Closeout	%	5.00	$ 485,560.00	$ 485,560.00

COSTRUCTION COST	**$ 10,196,665**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 204,000
ENGINEERING (10%)	$ 1,019,600
INSPECTION (5%)	$ 509,800
CONTINGENCY (10%)	$ 1,019,600
PROJECT COST	**$ 12,949,665**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

P 17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill Ha

Project		
Total Construction Cost	**$**	**10,196,665**
Legal / Administration / Financial (2%)	$	204,000
Engineering (10%)	$	1,019,600
Inspection (5%)	$	509,800
Contingency (10%)	$	1,019,600
Total Project Cost	**$**	**12,949,665**

Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
Total Cost to Finance	**$**	**12,720,865**

Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill Haven)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$228,800	$0	$12,720,865	$102.70	$49.92	$152.62	2.80%
PENNVEST	1.000% for 25 yrs	$228,800	$0	$12,720,865	$84.15	$49.92	$134.07	2.46%
USDA Rural Development	2.5% for 40 yrs	$228,800	$0	$12,720,865	$73.83	$49.92	$123.75	2.27%
Conventional Bank Loan	4.000% for 20 yrs	$228,800	$0	$12,720,865	$136.37	$49.92	$186.29	3.42%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

7K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,196,665**
Legal / Administration / Financial (2%)	$	204,000
Engineering (10%)	$	1,019,600
Inspection (5%)	$	509,800
Contingency (10%)	$	1,019,600
Total Project Cost	**$**	**12,949,665**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**12,720,865**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	704,931
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	102.70
Quarterly Add'l Cost / EDU	$	308.10
Annual Add'l Cost / EDU	$	1,232.40
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	10,013,074
Annual Debt Service	$	764,196
Total Billing Units (EDUs) [(2)]		572
Monthly Add'l Cost / EDU	$	111.33
Quarterly Add'l Cost / EDU	**$**	**334.00**
Annual Add'l Cost / EDU	$	1,336.01
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	152.62
Total Quarterly Cost (first 5 Years)	**$**	**457.86**
Total Annual Cost (first 5 Years)	$	1,831.44
Total Monthly Cost (next 15 Years)	$	161.25
Total Quarterly Cost (next 15 Years)	**$**	**483.76**
Total Annual Cost (next 15 Years)	$	1,935.05
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.80%**
Percent of MHI for Sewer Bill (next 15 Years)		2.96%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill Haven)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**10,196,665**	**$**	**10,196,665**
Legal / Administration / Financial (2%)	$	204,000	$	204,000
Engineering (10%)	$	1,019,600	$	1,019,600
Inspection (5%)	$	509,800	$	509,800
Contingency (10%)	$	1,019,600	$	1,019,600
Total Project Cost	**$**	**12,949,665**	**$**	**12,949,665**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		572		572
Township Tapping Fee	$	228,800	$	228,800
PENNVEST Grant	$	-	$	3,778,585
PENNVEST Loan	**$**	**12,720,865**	**$**	**8,942,280**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	577,613	$	406,040
Total Billing Units (EDUs)		572		572
Monthly Add'l Cost / EDU	$	84.15	$	59.16
Quarterly Add'l Cost / EDU	**$**	**252.45**	**$**	**177.47**
Annual Add'l Cost / EDU	$	1,009.81	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	134.07	$	109.08
Total Quarterly Cost	**$**	**402.21**	**$**	**327.23**
Total Annual Cost	$	1,608.85	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.46%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill H
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,196,665**
Legal / Administration / Financial (2%)	$	204,000
Engineering (10%)	$	1,019,600
Inspection (5%)	$	509,800
Contingency (10%)	$	1,019,600
Total Project Cost	**$**	**12,949,665**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**12,720,865**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	506,751
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	73.83
Quarterly Add'l Cost / EDU	**$**	**221.48**
Annual Add'l Cost / EDU	$	885.93
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	123.75
Total Quarterly Cost	**$**	**371.24**
Total Annual Cost	$	1,484.97
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**2.27%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

' 17K: ORWIGSBURG BASIN - EXTENSION NO 1B (Renninger's and Adamsdale to Schuylkill H:
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,196,665**
Legal / Administration / Financial (2%)	$	204,000
Engineering (10%)	$	1,019,600
Inspection (5%)	$	509,800
Contingency (10%)	$	1,019,600
Total Project Cost	**$**	**12,949,665**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
Conventional Bank Loan	**$**	**12,720,865**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	936,024
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	136.37
Quarterly Add'l Cost / EDU	**$**	**409.10**
Annual Add'l Cost / EDU	$	1,636.40
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	186.29
Total Quarterly Cost	**$**	**558.86**
Total Annual Cost	$	2,235.44
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**3.42%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	8,085	$ 140.00	$ 1,131,900.00
2	**6-in DIP Force Main Pipe**				
2A	PENNDOT Cartway	LF	5,055	$ 135.00	$ 682,425.00
3	**6-in SDR-26 Sanitary Sewer Pipe**				
3A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	675	$ 160.00	$ 108,000.00
4	**4-FT Diameter Standard Manhole**				
4A	PENNDOT Cartway	EA	33	$ 4,250.00	$ 140,250.00
5	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
5A	Boring	LF	160	$ 600.00	$ 96,000.00
6	**Restoration**				
6A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	10,745	$ 55.00	$ 590,975.00
6B	Unimproved Right-of-Way	SY	275	$ 30.00	$ 8,250.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
7	**8-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Cartway	LF	16,155	$ 120.00	$ 1,938,600.00
8	**6-in DIP Force Main Pipe**				
8A	Township Cartway	LF	-	$ 110.00	$ -
9	**6-in SDR-26 Sanitary Sewer Pipe**				
9A	Township Right-of-Way (Assume 25 LF Each Building)	LF	2,675	$ 80.00	$ 214,000.00
10	**4-FT Diameter Standard Manhole**				
10A	Township Cartway	EA	62	$ 4,250.00	$ 263,500.00
11	**Restoration**				
11A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	13,565	$ 42.00	$ 569,730.00
11B	Unimproved Right-of-Way	SY	1,080	$ 25.00	$ 27,000.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
12	**8-in SDR-26 Sanitary Sewer Pipe**				
12A	Lawn/Open Space	LF	2,470	$ 100.00	$ 247,000.00
13	**6-in DIP Force Main Pipe**				
13A	Unimproved Easement	LF	345	$ 85.00	$ 29,325.00
14	**6-in SDR-26 Sanitary Sewer Pipe**				
14A	Unimproved Easement (Assume 25 LF Each Building)	LF	100	$ 80.00	$ 8,000.00
15	**4-FT Diameter Standard Manhole**				
15A	Unimproved Easement	EA	5	$ 4,250.00	$ 21,250.00
16	**Restoration**				
16A	Unimproved Easement	SY	2,230	$ 25.00	$ 55,750.00
SPECIAL CONSTRUCTION					
17	**Pump Station**				
17A	Submersible Grinder Pump Station with Generator, Flow Metering, etc.	LS	1	$ 525,000.00	$ 525,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
18	**Miscellaneous Construction Items**				
18A	Miscellaneous Unclassified Excavation	CY	100	$ 40.00	$ 4,000.00
18B	Mescellaneous Stone in Place	TN	40	$ 37.00	$ 1,480.00
18C	Miscellaneous Plain Concrete	CY	15	$ 230.00	$ 3,450.00
18D	Mobilization and Closeout	%	5.00	$ 333,300.00	$ 333,300.00

COSTRUCTION COST	**$ 6,999,200**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 140,000
ENGINEERING (10%)	$ 699,900
INSPECTION (5%)	$ 349,900
CONTINGENCY (10%)	$ 699,900
PROJECT COST	**$ 8,888,900**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)

Project		
Total Construction Cost	**$**	**6,999,200**
Legal / Administration / Financial (2%)	$	140,000
Engineering (10%)	$	699,900
Inspection (5%)	$	349,900
Contingency (10%)	$	699,900
Total Project Cost	**$**	**8,888,900**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
Total Cost to Finance	**$**	**8,692,100**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$196,800	$0	$8,692,100	$81.58	$49.92	$131.50	2.41%
PENNVEST	1.000% for 25 yrs	$196,800	$0	$8,692,100	$66.85	$49.92	$116.77	2.14%
USDA Rural Development	2.5% for 40 yrs	$196,800	$0	$8,692,100	$58.65	$49.92	$108.57	1.99%
Conventional Bank Loan	4.000% for 20 yrs	$196,800	$0	$8,692,100	$108.33	$49.92	$158.25	2.90%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,999,200**
Legal / Administration / Financial (2%)	$	140,000
Engineering (10%)	$	699,900
Inspection (5%)	$	349,900
Contingency (10%)	$	699,900
Total Project Cost	**$**	**8,888,900**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**8,692,100**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	481,675
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	81.58
Quarterly Add'l Cost / EDU	$	244.75
Annual Add'l Cost / EDU	$	979.02
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	6,841,881
Annual Debt Service	$	522,171
Total Billing Units (EDUs) [(2)]		492
Monthly Add'l Cost / EDU	$	88.44
Quarterly Add'l Cost / EDU	**$**	**265.33**
Annual Add'l Cost / EDU	$	1,061.32
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	131.50
Total Quarterly Cost (first 5 Years)	**$**	**394.51**
Total Annual Cost (first 5 Years)	$	1,578.06
Total Monthly Cost (next 15 Years)	$	138.36
Total Quarterly Cost (next 15 Years)	**$**	**415.09**
Total Annual Cost (next 15 Years)	$	1,660.36
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.41%**
Percent of MHI for Sewer Bill (next 15 Years)		2.54%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**6,999,200**	**$**	**6,999,200**
Legal / Administration / Financial (2%)	$	140,000	$	140,000
Engineering (10%)	$	699,900	$	699,900
Inspection (5%)	$	349,900	$	349,900
Contingency (10%)	$	699,900	$	699,900
Total Project Cost	**$**	**8,888,900**	**$**	**8,888,900**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		492		492
Township Tapping Fee	$	196,800	$	196,800
PENNVEST Grant	$	-	$	1,000,000
PENNVEST Loan	**$**	**8,692,100**	**$**	**7,692,100**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	394,680	$	349,273
Total Billing Units (EDUs)		492		492
Monthly Add'l Cost / EDU	$	66.85	$	59.16
Quarterly Add'l Cost / EDU	**$**	**200.55**	**$**	**177.48**
Annual Add'l Cost / EDU	$	802.20	$	709.91
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	116.77	$	109.08
Total Quarterly Cost	**$**	**350.31**	**$**	**327.24**
Total Annual Cost	$	1,401.24	$	1,308.95
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**2.14%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,999,200**
Legal / Administration / Financial (2%)	$	140,000
Engineering (10%)	$	699,900
Inspection (5%)	$	349,900
Contingency (10%)	$	699,900
Total Project Cost	**$**	**8,888,900**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**8,692,100**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	346,261
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	58.65
Quarterly Add'l Cost / EDU	**$**	**175.95**
Annual Add'l Cost / EDU	$	703.78
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	108.57
Total Quarterly Cost	**$**	**325.71**
Total Annual Cost	$	1,302.82
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**1.99%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17L: ORWIGSBURG BASIN - EXTENSION NO 2A (Renninger's to Orwigsburg)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**6,999,200**
Legal / Administration / Financial (2%)	$	140,000
Engineering (10%)	$	699,900
Inspection (5%)	$	349,900
Contingency (10%)	$	699,900
Total Project Cost	**$**	**8,888,900**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		492
Township Tapping Fee	$	196,800
Conventional Bank Loan	**$**	**8,692,100**
Debt Service @ 4.00% for first 20 Yrs (1)		
Annual Debt Service	$	639,580
Total Billing Units (EDUs)		492
Monthly Add'l Cost / EDU	$	108.33
Quarterly Add'l Cost / EDU	**$**	**324.99**
Annual Add'l Cost / EDU	$	1,299.96
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	158.25
Total Quarterly Cost	**$**	**474.75**
Total Annual Cost	$	1,899.00
Median Household Income (2)	$	65,445
Percent of MHI for New Bill		**2.90%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	1,895	$ 140.00	$ 265,300.00
1	**6-in DIP Force Main Pipe**				
1A	PENNDOT Cartway	LF	-	$ 135.00	$ -
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	300	$ 160.00	$ 48,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	8	$ 4,250.00	$ 34,000.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	150	$ 600.00	$ 90,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	1,585	$ 55.00	$ 87,175.00
5B	Unimproved Right-of-Way	SY	120	$ 30.00	$ 3,600.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	7,505	$ 120.00	$ 900,600.00
1	**6-in DIP Force Main Pipe**				
1A	Township Cartway	LF	7,865	$ 110.00	$ 865,150.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	1,550	$ 80.00	$ 124,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	26	$ 4,250.00	$ 110,500.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	12,535	$ 42.00	$ 526,470.00
9B	Unimproved Right-of-Way	SY	630	$ 25.00	$ 15,750.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	550	$ 100.00	$ 55,000.00
1	**6-in DIP Force Main Pipe**				
1A	Unimproved Easement	LF	-	$ 85.00	$ -
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	50	$ 80.00	$ 4,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	2	$ 4,250.00	$ 8,500.00
13	**Restoration**				
13A	Unimproved Easement	SY	470	$ 25.00	$ 11,750.00
SPECIAL CONSTRUCTION					
16	**Pump Station**				
16A	Submersible Grinder Pump Station with Generator, Flow Metering, etc.	LS	1	$ 325,000.00	$ 325,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
15	**Miscellaneous Construction Items**				
15A	Miscellaneous Unclassified Excavation	CY	100	$ 40.00	$ 4,000.00
15B	Mescellaneous Stone in Place	TN	40	$ 37.00	$ 1,480.00
15C	Miscellaneous Plain Concrete	CY	15	$ 230.00	$ 3,450.00
15D	Mobilization and Closeout	%	5.00	$ 174,190.00	$ 174,190.00

COSTRUCTION COST	**$ 3,658,000**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 73,200
ENGINEERING (10%)	$ 365,800
INSPECTION (5%)	$ 182,900
CONTINGENCY (10%)	$ 365,800
PROJECT COST	**$ 4,645,700**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)

Project		
Total Construction Cost	**$**	**3,658,000**
Legal / Administration / Financial (2%)	$	73,200
Engineering (10%)	$	365,800
Inspection (5%)	$	182,900
Contingency (10%)	$	365,800
Total Project Cost	**$**	**4,645,700**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		80
Township Tapping Fee	$	32,000
Total Cost to Finance	**$**	**4,613,700**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$32,000	$0	$4,613,700	$266.32	$49.92	$316.24	5.80%
PENNVEST	1.000% for 25 yrs	$32,000	$0	$4,613,700	$218.22	$49.92	$268.14	4.92%
USDA Rural Development	2.5% for 40 yrs	$32,000	$0	$4,613,700	$191.45	$49.92	$241.37	4.43%
Conventional Bank Loan	4.000% for 20 yrs	$32,000	$0	$4,613,700	$353.63	$49.92	$403.55	7.40%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**3,658,000**
Legal / Administration / Financial (2%)	$	73,200
Engineering (10%)	$	365,800
Inspection (5%)	$	182,900
Contingency (10%)	$	365,800
Total Project Cost	**$**	**4,645,700**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		80
Township Tapping Fee	$	32,000
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**4,613,700**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	255,670
Total Billing Units (EDUs)		80
Monthly Add'l Cost / EDU	$	266.32
Quarterly Add'l Cost / EDU	$	798.97
Annual Add'l Cost / EDU	$	3,195.87
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	3,631,618
Annual Debt Service	$	277,164
Total Billing Units (EDUs) [(2)]		80
Monthly Add'l Cost / EDU	$	288.71
Quarterly Add'l Cost / EDU	**$**	**866.14**
Annual Add'l Cost / EDU	$	3,464.55
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	316.24
Total Quarterly Cost (first 5 Years)	**$**	**948.73**
Total Annual Cost (first 5 Years)	$	3,794.91
Total Monthly Cost (next 15 Years)	$	338.63
Total Quarterly Cost (next 15 Years)	**$**	**1,015.90**
Total Annual Cost (next 15 Years)	$	4,063.59
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**5.80%**
Percent of MHI for Sewer Bill (next 15 Years)		6.21%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**3,658,000**	**$**	**3,658,000**
Legal / Administration / Financial (2%)	$	73,200	$	73,200
Engineering (10%)	$	365,800	$	365,800
Inspection (5%)	$	182,900	$	182,900
Contingency (10%)	$	365,800	$	365,800
Total Project Cost	**$**	**4,645,700**	**$**	**4,645,700**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		80		80
Township Tapping Fee	$	32,000	$	32,000
PENNVEST Grant	$	-	$	3,363,031
PENNVEST Loan	**$**	**4,613,700**	**$**	**1,250,669**
Debt Service @ 1.000% for first 25 Yrs [(1)]				
Annual Debt Service	$	209,493	$	56,789
Total Billing Units (EDUs)		80		80
Monthly Add'l Cost / EDU	$	218.22	$	59.16
Quarterly Add'l Cost / EDU	**$**	**654.67**	**$**	**177.47**
Annual Add'l Cost / EDU	$	2,618.66	$	709.86
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	47.92	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**	**$**	**49.92**
Total Monthly Cost	$	268.14	$	109.08
Total Quarterly Cost	**$**	**804.43**	**$**	**327.23**
Total Annual Cost	$	3,217.70	$	1,308.90
Median Household Income [(2)]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**4.92%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**3,658,000**
Legal / Administration / Financial (2%)	$	73,200
Engineering (10%)	$	365,800
Inspection (5%)	$	182,900
Contingency (10%)	$	365,800
Total Project Cost	**$**	**4,645,700**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		80
Township Tapping Fee	$	32,000
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**4,613,700**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	183,792
Total Billing Units (EDUs)		80
Monthly Add'l Cost / EDU	$	191.45
Quarterly Add'l Cost / EDU	**$**	**574.35**
Annual Add'l Cost / EDU	$	2,297.41
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	241.37
Total Quarterly Cost	**$**	**724.11**
Total Annual Cost	$	2,896.45
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**4.43%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17M: ORWIGSBURG BASIN - EXTENSION NO 2B (Adamsdale to Orwigsburg)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**3,658,000**
Legal / Administration / Financial (2%)	$	73,200
Engineering (10%)	$	365,800
Inspection (5%)	$	182,900
Contingency (10%)	$	365,800
Total Project Cost	**$**	**4,645,700**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		80
Township Tapping Fee	$	32,000
Conventional Bank Loan	**$**	**4,613,700**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	339,484
Total Billing Units (EDUs)		80
Monthly Add'l Cost / EDU	$	353.63
Quarterly Add'l Cost / EDU	**$**	**1,060.89**
Annual Add'l Cost / EDU	$	4,243.55
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	403.55
Total Quarterly Cost	**$**	**1,210.65**
Total Annual Cost	$	4,842.59
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**7.40%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

This Page Intentionally Left Blank

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsburg)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	9,980	$ 140.00	$ 1,397,200.00
1	**6-in DIP Force Main Pipe**				
1A	PENNDOT Cartway	LF	5,055	$ 135.00	$ 682,425.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	975	$ 160.00	$ 156,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	41	$ 4,250.00	$ 174,250.00
4	**8-in SDR-26 Sanitary Sewer Pipe in Steel Casing**				
4A	Boring	LF	310	$ 600.00	$ 186,000.00
5	**Restoration**				
5A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	12,330	$ 55.00	$ 678,150.00
5B	Unimproved Right-of-Way	SY	395	$ 30.00	$ 11,850.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
6	**8-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Cartway	LF	23,660	$ 120.00	$ 2,839,200.00
1	**6-in DIP Force Main Pipe**				
1A	Township Cartway	LF	7,865	$ 110.00	$ 865,150.00
7	**6-in SDR-26 Sanitary Sewer Pipe**				
7A	Township Right-of-Way (Assume 25 LF Each Building)	LF	4,225	$ 80.00	$ 338,000.00
8	**4-FT Diameter Standard Manhole**				
8A	Township Cartway	EA	88	$ 4,250.00	$ 374,000.00
9	**Restoration**				
9A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	26,100	$ 42.00	$ 1,096,200.00
9B	Unimproved Right-of-Way	SY	1,710	$ 25.00	$ 42,750.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
10	**8-in SDR-26 Sanitary Sewer Pipe**				
10A	Lawn/Open Space	LF	3,020	$ 100.00	$ 302,000.00
1	**6-in DIP Force Main Pipe**				
1A	Unimproved Easement	LF	345	$ 85.00	$ 29,325.00
11	**6-in SDR-26 Sanitary Sewer Pipe**				
11A	Unimproved Easement (Assume 25 LF Each Building)	LF	150	$ 80.00	$ 12,000.00
12	**4-FT Diameter Standard Manhole**				
12A	Unimproved Easement	EA	7	$ 4,250.00	$ 29,750.00
13	**Restoration**				
13A	Unimproved Easement	SY	2,700	$ 25.00	$ 67,500.00
SPECIAL CONSTRUCTION					
14	**Pump Station**				
14A	Renninger's PS (Submersible Grinder Station with Generator, Metering, etc.)	LS	1	$ 525,000.00	$ 525,000.00
14B	Adamsdale PS (Submersible Grinder Station with Generator, Metering, etc.)	LS	1	$ 325,000.00	$ 325,000.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
15	**Miscellaneous Construction Items**				
15A	Miscellaneous Unclassified Excavation	CY	150	$ 40.00	$ 6,000.00
15B	Mescellaneous Stone in Place	TN	60	$ 37.00	$ 2,220.00
15C	Miscellaneous Plain Concrete	CY	30	$ 230.00	$ 6,900.00
15D	Mobilization and Closeout	%	5.00	$ 507,350.00	$ 507,350.00

COSTRUCTION COST	**$ 10,654,220**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 213,100
ENGINEERING (10%)	$ 1,065,400
INSPECTION (5%)	$ 532,700
CONTINGENCY (10%)	$ 1,065,400
PROJECT COST	**$ 13,530,820**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

[AP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsbur

Project		
Total Construction Cost	**$**	**10,654,220**
Legal / Administration / Financial (2%)	$	213,100
Engineering (10%)	$	1,065,400
Inspection (5%)	$	532,700
Contingency (10%)	$	1,065,400
Total Project Cost	**$**	**13,530,820**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
Total Cost to Finance	**$**	**13,302,020**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**

Notes:

(1) Treatment Costs per EDU per Month are based on NMTA current rate of $143.75 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsburg)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$228,800	$0	$13,302,020	$107.39	$49.92	$157.31	2.88%
PENNVEST	1.000% for 25 yrs	$228,800	$0	$13,302,020	$88.00	$49.92	$137.92	2.53%
USDA Rural Development	2.5% for 40 yrs	$228,800	$0	$13,302,020	$77.20	$49.92	$127.12	2.33%
Conventional Bank Loan	4.000% for 20 yrs	$228,800	$0	$13,302,020	$142.60	$49.92	$192.52	3.53%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigs
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,654,220**
Legal / Administration / Financial (2%)	$	213,100
Engineering (10%)	$	1,065,400
Inspection (5%)	$	532,700
Contingency (10%)	$	1,065,400
Total Project Cost	**$**	**13,530,820**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**13,302,020**
Debt Service @ 1.000% for first 5 Yrs [(1)]		
Annual Debt Service	$	737,136
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	107.39
Quarterly Add'l Cost / EDU	$	322.17
Annual Add'l Cost / EDU	$	1,288.70
Debt Service @ 1.740% for next 15 Yrs [(1)]		
Remaining Principal	$	10,470,524
Annual Debt Service	$	799,108
Total Billing Units (EDUs) [(2)]		572
Monthly Add'l Cost / EDU	$	116.42
Quarterly Add'l Cost / EDU	**$**	**349.26**
Annual Add'l Cost / EDU	$	1,397.04
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost (first 5 Years)	$	157.31
Total Quarterly Cost (first 5 Years)	**$**	**471.93**
Total Annual Cost (first 5 Years)	$	1,887.74
Total Monthly Cost (next 15 Years)	$	166.34
Total Quarterly Cost (next 15 Years)	**$**	**499.02**
Total Annual Cost (next 15 Years)	$	1,996.08
Median Household Income [(2)]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**2.88%**
Percent of MHI for Sewer Bill (next 15 Years)		3.05%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsburg)
1 PERCENT FOR 25 YEAR TERM

	WITHOUT GRANT FUNDING	WITH GRANT FUNDING
Project		
Total Construction Cost	**$ 10,654,220**	**$ 10,654,220**
Legal / Administration / Financial (2%)	$ 213,100	$ 213,100
Engineering (10%)	$ 1,065,400	$ 1,065,400
Inspection (5%)	$ 532,700	$ 532,700
Contingency (10%)	$ 1,065,400	$ 1,065,400
Total Project Cost	**$ 13,530,820**	**$ 13,530,820**
Funding Sources		
Tapping Fee Rate	$ 400.00	$ 400.00
Equivalent Dwelling Units	572	572
Township Tapping Fee	$ 228,800	$ 228,800
PENNVEST Grant	$ -	$ 4,358,984
PENNVEST Loan	**$ 13,302,020**	**$ 8,943,036**
Debt Service @ 1.000% for first 25 Yrs [1]		
Annual Debt Service	$ 604,002	$ 406,074
Total Billing Units (EDUs)	572	572
Monthly Add'l Cost / EDU	$ 88.00	$ 59.16
Quarterly Add'l Cost / EDU	**$ 263.99**	**$ 177.48**
Annual Add'l Cost / EDU	$ 1,055.95	$ 709.92
Administration	$ 2.00	$ 2.00
Treatment Cost per EDU per Month	$ 47.92	$ 47.92
Additional Monthly Cost for O&M	**$ 49.92**	**$ 49.92**
Total Monthly Cost	$ 137.92	$ 109.08
Total Quarterly Cost	**$ 413.75**	**$ 327.24**
Total Annual Cost	$ 1,654.99	$ 1,308.96
Median Household Income [2]	$ 65,445	$ 65,445
Percent of MHI for Sewer Bill	**2.53%**	**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

AP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsbu
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,654,220**
Legal / Administration / Financial (2%)	$	213,100
Engineering (10%)	$	1,065,400
Inspection (5%)	$	532,700
Contingency (10%)	$	1,065,400
Total Project Cost	**$**	**13,530,820**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**13,302,020**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	529,902
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	77.20
Quarterly Add'l Cost / EDU	**$**	**231.60**
Annual Add'l Cost / EDU	$	926.40
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	127.12
Total Quarterly Cost	**$**	**381.36**
Total Annual Cost	$	1,525.44
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**2.33%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

AP 17N: ORWIGSBURG BASIN - EXTENSION NO 2C (Renninger's and Adamsdale to Orwigsbu
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**10,654,220**
Legal / Administration / Financial (2%)	$	213,100
Engineering (10%)	$	1,065,400
Inspection (5%)	$	532,700
Contingency (10%)	$	1,065,400
Total Project Cost	**$**	**13,530,820**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		572
Township Tapping Fee	$	228,800
Conventional Bank Loan	**$**	**13,302,020**
Debt Service @ 4.00% for first 20 Yrs [(1)]		
Annual Debt Service	$	978,786
Total Billing Units (EDUs)		572
Monthly Add'l Cost / EDU	$	142.60
Quarterly Add'l Cost / EDU	**$**	**427.79**
Annual Add'l Cost / EDU	$	1,711.16
Administration	$	2.00
Treatment Cost per EDU per Month	$	47.92
Additional Monthly Cost for O&M	**$**	**49.92**
Total Monthly Cost	$	192.52
Total Quarterly Cost	**$**	**577.55**
Total Annual Cost	$	2,310.20
Median Household Income [(2)]	$	65,445
Percent of MHI for New Bill		**3.53%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

ACT 537 SEWAGE FACILITIES PLAN
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY, PA

Appendix K ■ Seiders Hill Wastewater Treatment Plant Private to Public Act 537 Planning Requirements

- Checklist For Private to Public Wastewater Disposal System Transfers Act 537 Plan Requirements
- GIF Form One Page
- Act 537 Narrative/Planning
- Exhibit 1 NMTA/SCMA Intermunicipal Agreement
- Exhibit 2 Seiders Hill Basin Extension
- Exhibit 3 WWTP Schematic
- Exhibit 4 NPDES Permit
- Exhibit 5 2023 Chapter 94 Wasteload Report
- Exhibit 6 DMR's and Sludge Disposal Reports

PRIVATE-TO-PUBLIC WASTEWATER DISPOSAL SYSTEM TRANSFERS
ACT 537 PLANNING REQUIREMENTS
PERTAINING TO SEIDERS HILL TRANSFER TO SCMA

This document outlines Act 537 planning requirements applicable to situations where a public entity purchases or intends to purchase a privately-owned and operated wastewater collection, conveyance or treatment system.

Section 71.12(a) of the Sewage Facilities Planning regulations provides that "Municipalities shall review and revise their official plans whenever the municipality or the Department determines that the plan is inadequate to meet the existing or future sewage disposal needs of the municipality or portion thereof." In addition, section 71.13(a) of the regulations states that "[t]he Department will require a municipality to revise its official plan when it determines that . . . the plan, or its parts, is inadequate to meet the sewage needs of the municipality, its residents or property owners because of newly discovered facts, conditions or circumstances which make the plan inadequate."

The purchase of an existing privately-owned wastewater facility by a public entity presents new facts and issues which are not addressed in an existing Act 537 plan which covers the privately-owned wastewater disposal system. This necessitates Act 537 planning in order to ensure that the purchase and management of the facility adequately meets the existing and future sewage disposal needs of the residents of the areas served by the wastewater treatment facility being purchased. The planning should, among other things, address any changes in the areas served and the responsibilities of the municipality and the purchasing entity with respect to the operation and maintenance of the facility.

The scenario is that a public entity plans to purchase a privately owned and operated wastewater collection, conveyance or treatment system. In addition, the following items are assumed in the scenario:

- Existing sewage needs identified in the municipality's current Official Sewage Facilities Plan (Act 537 Plan) are resolved, or the existing needs have been identified and resolutions have been provided in the existing Act 537 Plan.
- There are no ongoing Municipal Wasteload Management (Chapter 94) issues with respect to the collection, conveyance, or treatment components of the existing system, or the issues are in the process of being resolved through an executed Consent Order and Agreement (CO&A).

- There are no ongoing Combined Sewer Overflow (CSO) compliance issues that have not been addressed with the Department or the U.S. Environmental Protection Agency (EPA).
- There are no major compliance issues with the Department or EPA that require structural or administrative improvements that would require the completion of sewage planning, under the Sewage Facilities Act (Act 537), that has not yet been accomplished.

The following sewage facilities plan outline is the framework for the planning effort to cover the assumed scenario. The municipality or municipal authority and private entity should contact the Regional Act 537 Planning staff as early as possible during the transaction process to schedule a pre- application meeting to discuss and finalize the content of any required Plan.

If any of the above assumptions do not match the actual situation, the specific details of the situation can be discussed at the meeting and the regional planning staff can adjust the outline to ensure that all applicable planning requirements will be addressed. The outline is not set in stone. If there are valid reasons to include additional items on the planning checklist or remove items listed based on a specific situation, the regional staff should use its discretion to revise the outline.

Municipalities are required to develop and implement comprehensive official plans which provide for the resolution of existing sewage disposal problems and provide for the resolution of future sewage disposal needs of the municipality. The current Official Act 537 Plan of the municipality must be revised through official action to acknowledge the private acquisition of the POTW. The Plan Update or Special Study must reflect the changed ownership of the sewage facilities to ensure that current and future sewage disposal needs of the municipality will be met. The Planning will ensure the municipality, and the private entity will cooperate to address any current and future sewage disposal needs.

Sewage Facilities Plan Outline

Part I - General Information Form – Please see the completed form in this Appendix K

Part 2 - Administrative Completeness Checklist

I. Table of Contents – The main TOC will be referenced, and this Section devoted to Seiders Hill WWTP is Appendix K of the Township Wide Plan.

II. Plan Summary – The summary should provide the sewage planning staff with a synopsis of the contents of the Act 537 Plan. Items A-E should be addressed in the Plan Summary.

A. Identify the facilities being acquired. Please include a listing of the assets and areas and municipalities that will be provided sewage services as well as any other municipalities being provided with sewage service via the system as evaluated in the plan. (Reference - 25 *Pa. Code* §71.21(a)(7)(i)). The Seiders Hill WWTP was acquired by SCMA in 2020.

B. Identify any institutional arrangements necessary to implement the chosen alternative of acquisition of the system. Necessary institutional arrangements refers to new agreements, modifications to existing agreements, action by the PUC or other necessary legal actions necessary to implement the alternative (Reference - 25 *Pa.* Code§71.21(a)(7)(ii)). A new Agreement is included in Appendix B of the Act 537 Plan and as a sub-exhibit in Appendix K. The date of the most recent Agreement between NMTA and SCMA is dated 11/15/2023.

C. Present the proposed purchase price and any costs of implementing the proposed acquisition. (Reference - 25 *Pa.* Code §71.21(a)(7)(ii)). The WWTP has already been purchased.

D. Identify the municipal and purchasing entity commitments necessary to implement the Plan. (Reference - 25 *Pa.* Code §71.21(a)(7)(iii)). The Schuylkill County Municipal Authority, formerly known as the Pottsville Water Company, is the largest **drinking water** purveyor and sanitary ***sewer service*** provider in Schuylkill County. The Authority was formed in 1961 after the purchase of the former Pottsville Water Company and currently serves over 30,000 customers in 26 municipalities. Since 1834, SCMA has provided clean, safe drinking water and reliable sanitary sewer treatment services to its valued customers. Sanitary sewer service is provided through SCMA's 7 wastewater treatment plants, 30 wastewater pumping stations, and over 110 miles of collection and

interceptor lines. Over 1.5 million gallons of sewage are treated daily by the Authority. One of the 7 WWTP's is Seiders Hill located on Gordon Nagle Trail in North Manheim Township.

E. Provide a schedule of implementation for the project that identifies the major milestones with dates necessary to accomplish the project to the point of operational status. (Reference - 25 *Pa. Code* §71.21(a)(7)(iv)). Not applicable as the WWTP was already purchased and is being operated by SCMA without any issues.

III. Municipal Adoption: Original, signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. Municipalities that are tributary to the sewage. facilities of the municipality performing the sewage planning, that wish to maintain the current method of sewage disposal into the municipal system being purchased will be required to adopt the plan by resolution. (Reference - 25 *Pa. Code* §71.31(f)) Section V.F. of the Planning Guide. The Resolution of the Adoption of the Township-Wide Act 537 Plan will be provided in the submission to PA DEP.

IV. Planning Commission / County Health Department Comments: Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with area wide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference - 25 *Pa. Code* §71.31(b)) Section V.E.1 of the Planning Guide. Comments will be provided to PA DEP with the submission of the Act 537 Plan.

V. Publication: Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduction of a 30-day comment period. (Reference - 25 *Pa. Code*
§71.31(c)) Section V.E.2 of the Planning Guide. Proof of the advertisement of the Public Notice will be provided with the submission of the Act 537 Plan.

VI. Comments and Responses: Copies of all written comments received and municipal response to each comment in relation to the proposed plan. (Reference - 25 *Pa. Code* §71.31(c)) Section V.E.2 of the Planning Guide. Comments and responses will be provided with the submission of the Act 537 Plan.

VII. Implementation Schedule: A complete implementation schedule with milestone dates specific to the necessary step to complete the acquisition. (Reference - 25 *Pa. Code* §71.31(d)) Section V.F. of the Planning Guide. If the planning indicated that additional planning effort(s) are required to address sewage needs or future sewage needs, then the schedule must include these future efforts. (Reference - 25 *Pa. Code* §71.21(c)). Not applicable as the WWTP has already been purchased.

Part 3 - General Plan Content Checklist

I. Previous Wastewater Planning – This section should provide a brief description of previous planning efforts. The goal is to establish the background and understanding of the municipality's obligations under the existing Act 537 Plan. Sections of the Plan following this section will establish the commitment by the purchasing entity; to address any existing sewage needs or future unmet sewage needs that may require extension and/or upgrade of the existing collection, conveyance, or treatment system to be purchased. Please refer to Sections 1.5, 3.1, 3.5, 3.5.1, 4.2.3, Tables 4.6 and 4.8, 5.1, Table 5.1, 5.2.1, 5.4.2, 6.1.2, 6.4.2, 6.5.2, Table 6.5, 7.1.7, 8.1, and Maps 12, 13F, and 17B in the main Act 537 for additional information concerning Seiders Hill WWTP.

A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort. This should cover planning:

The selected approach to wastewater management in North Manheim Township is to continue to rely on public sewer service for those properties currently connected to public sewer; as well as those areas with current approved planning for public sewer and to implement an on-lot management program for the developed parcels currently not serviced by public sewers. **Use of multiple WWTPs for treatment will continue**, with no immediate change to the service basin boundaries for these facilities within the Township. Please note that this includes the Seiders Hill Basin and the existing WWTP now owned and maintained by SCMA.

1. Previously undertaken under the Pennsylvania Sewage Facilities Act (Act). (Reference - Act 537, 35 P.S. §750.5(d)(l)). Not applicable

2. That has not been carried out according to an approved implementation schedule contained in the plans. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A-D)). Section V.F of the Planning Guide. Not applicable

3. That is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A&B)). Section V.D. of the Planning Guide. Not applicable

4. Through planning modules for new land development, planning "exemptions" and addenda. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A)). Not applicable

II. Physical Analysis of Municipality or municipalities served by purchasing entity utilizing written description and mapping - Section should provide an understanding of the physical layout of the municipality. (This information may be covered in previous planning efforts. If so, reference to the section in the previous planning effort will be sufficient.) Please refer to Appendix A for all of the relevant Maps.

A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference - 25 *Pa.* Code §71.21(a)(1)(i)). Please refer to Appendix A for all of the relevant Maps.

B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference - 25 *Pa. Code* §71.21(a)(1)(ii)). Please refer to Appendix A for all of the relevant Maps.

III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs

Identify, map and describe municipal sewerage systems in the planning area including:

A. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference - 25 *Pa.* Code §71.21(a)(2)(i)(A)). Please refer to Exhibits 4 and 5 in Appendix K for the NPDES Permit and most recent Chapter 94.

B. A narrative and schematic diagram of the facility's basic treatment processes including the facility's National Pollutant Discharge Elimination System (NPDES) permitted capacity, and the Clean Streams Law permit number. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(A)). Please refer to Exhibits 3 and 4 in Appendix K for the Schematic and the NPDES Permit.

C. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under 25 *Pa. Code* Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of DEP. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(B)). Please refer to Exhibits 4, 5 and 6 in Appendix K for the NPDES Permit and current Ch 94 Report and DMR's from 2021 through 2023

D. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. (Reference - 25 *Pa. Code* §71.21(a)(4)(i & ii)). Please refer to Exhibit 5 in Appendix K for the Ch 94 Report updates on upgrades, etc.

E. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference - 25 *Pa. Code* §71.21(a)(4)(i & ii)). Please refer to Exhibit 6 in Appendix K for the DMR's and Sludge Disposal information.

IV. Future Growth and Land Development

The sewage planning anticipated, if any, to provide adequate wastewater treatment for 5-year and 10-year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(3)(v)). Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities. Please refer to Exhibit 5 in Appendix K for the discussion in the Chapter 94 concerning planning.

5.4.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road):

The 1992 Seiders Hill Land Development Act 537 Plan – Section 3A states that the Seiders Hill development was estimated to contain 236 Equivalent Dwelling Units with a total average daily sewage flow of 77,000 GPD. The proposed WWTP would have a total capacity of 90,000 GPD, with 13,000 GPD or approximately 40 EDUs reserved for Township use. The WWTP would be constructed in 30,000 GPD modular units and be expanded in accordance with an agreement between the developer and the Township.

Establishes that the public entity purchasing the wastewater disposal system has addressed any unmet sewage needs established in previous planning as well as establishing the intent of ownership and O&M of the municipal system to be purchased. Essentially, existing sewage needs that have been planned to be met with the municipal collection, conveyance and/or treatment system to be acquired will be met by the public entity that is purchasing the system. There are no unmet needs at the Seiders Hill WWTP.

V. Evaluation of Alternatives

A. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference - 25 *Pa. Code* §71.21(a)(5)(iii)). – Establishes the commitment of the public entity purchasing the system to the

municipality to address any unmet sewage needs established in previous planning as well as establishing the intent of ownership and responsibilities for O&M of the municipal system to be purchased. Essentially, existing sewage needs that have been planned to be met with the municipal collection, conveyance and/or treatment system to be acquired will be met by the private entity purchasing the system. SCMA has already purchased the WWTP and is meeting their NPDES permit discharge limitations. Please refer to Exhibits 4, 5, and 6 in Appendix K for the NPDES Permit, 2023 Chapter 94, and DMR's for 2021-2023.

B. Present the proposed purchase price and any costs of implementing the proposed acquisition. The WWTP was already purchased by SCMA.

C. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference - 25 *Pa.* Code §71.21(a)(5)(vi)). As there are no phases proposed for the Seiders Hill WWTP, this is not/applicable.

1. A description of the advantages, if any, in phasing construction of the facilities or implementation of an SMP justifying time schedules for each phase. (Reference - 25 *Pa. Code* §71.21(a)(5)(vi)(B)). Not applicable.

D. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - 25 *Pa.* Code §71.21(a)(5)(vi)(D)). SCMA is an Authority that is well established and can own and maintain the existing WWTP without additional staffing.

VI. Institutional Evaluation

A. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:

1. Need for new municipal departments or municipal authorities. (Reference - 25 *Pa. Code* §71.61(d)(2)). None needed as SCMA has been operating the WWTP facility since 2018 and have officially purchased the facility in 2020.

2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference - 25 *Pa.* Code §71.61(d)(2)). SCMA has been in the business for many years and will continue to function without any changes in the Authorities O&M.

3. Cost of administration, implement ability, and the capability of the authority/agency to react to future needs. (Reference - 25 *Pa.* Code§71.61(d)(2)). The WWTP ownership has already been transferred.

B. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended institutional alternative including:

1. Incorporation of authorities or agencies. (Reference - 25 *Pa. Code* §71.61(d)(2)). The Agreement is already in place between NMTA and SCMA.

2. Development of all required ordinances, regulations, standards, agreements and inter- municipal agreements. (Reference - 25 Pa. Code §71.61(d)(2)). – The municipality has obligations under Act 537 and Chapter 94. These obligations include providing for sewage needs of areas of failed or malfunctioning onlot systems, planning and providing sewage facilities for new land development, and addressing projected or existing hydraulic overloads for collection, conveyance, and treatment facilities. The agreement between the current, private owner and the municipality or municipal authority (purchasing entity) must provide assurances that the obligations of the private owner will still be able to be met by the municipality (and/or municipal authority) even after the private owner relinquishes control of the sewage facilities. The agreement must establish the role of the purchasing entity in the implementation of the existing Act 537 Plan and future Act 537 Plans. The agreement must establish that both the private owner and the municipality and the municipality or municipal authority (purchasing entity) will work together to provide for these needs. The Agreement must establish a process to work out any disagreements to ensure that sewage needs are met. Not applicable.

3. Description of activities to provide rights-of-way, easements and land transfers. (Reference - 25 *Pa. Code* §71.61(d)(2)). Not applicable.

4. Adoption of other municipal sewage facilities plans. (Reference - 25 *Pa. Code* §71.61(d)(2)). Not applicable.

5. Any other legal documents. (Reference - 25 *Pa.* Code §71.61(d)(2)). Not applicable.

6. Dates or timeframes for items 1-5 above on the project's implementation schedule. Not applicable.

C. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference - 25 *Pa.* Code §71.61(d)(2)). Not applicable.

VII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives

A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs. Justify the choice by providing documentation which shows that it is the best alternative based on: Please refer to the paragraphs following A.5

1. Existing wastewater disposal needs. (Reference - 25 *Pa.* Code §71.21(a)(6)). Public sewer service in the Seiders Hill Basin will continue to be provided.

2. Future wastewater disposal needs. (5 and 10 year growth areas). (Reference - 25 *Pa. Code,* §71.21(a)(6)). At this time, there are no plans for any growth tributary to Seiders Hill WWTP.

3. O & M considerations. (Reference - 25 *Pa.* Code §71.21(a)(6)). SCMA has been in business since 1896, and have many existing water and sewer systems. Their approach to the O&M is to rotate staff to all of the facilities to ensure the O&M is consistent at all of their locations.

4. Available management and administrative systems. (Reference – 25 PA Code 71.2.1(a)(6)). SCMA has been in business since 1896 and have the management and administrative resources to own and operate Seiders Hill WWTP.

5. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference - 25 *Pa.* Code§71.21(a)(6)). As no changes are proposed at the WWTP and collection system, the compliance to this section is not applicable.

The selected approach to wastewater management in North Manheim Township is to continue to rely on public sewer service for those properties currently connected to public sewer; as well as those areas with current approved planning for public sewer and to implement an on-lot management program for the developed parcels currently not serviced by public sewers. **Use of multiple WWTPs for treatment will continue**, with no immediate change to the service basin boundaries for these facilities within the Township.

Additional public sewer service areas other than described herein are not proposed for any other portion of the Township over the next 5-years. The remainder of North Manheim Township will continue to rely on on-lot wastewater treatment and disposal systems. North Manheim Township is primarily zoned for low density development that is not conducive to extension of public sewage facilities. This combination of public sewer service for the developed area and reliance on on-lot treatment for the rural areas of the Township should meet the existing and projected 20-year needs of the Township absent the development of a large parcel of land.

Based on the analysis conducted as part of this Plan, the selected alternatives represent the most cost-effective approach, while preserving Township water resources and abiding by the vision of the Township, including natural resource preservation, established by the County and Township Comprehensive Plans. The selected alternatives will maximize use of the existing operation, maintenance, and administrative structure of the Township, while enhancing operation and maintenance through continued implementation of a sewage management program and a continued sewer system rehabilitation program.

B. **Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of implementation. (Reference – 25 *Pa. Code* §71.31(d)).** WWTP has already been transferred to SCMA.

END OF THE CHECKLIST

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

PART 1 GENERAL INFORMATION

A. Project Information

1. Project Name SEIDERS HILL WWTP TRANSFER TO SCHUYLKILL COUNTY MUNICIPAL AUTHORITY (SCMA)

2. Brief Project Description Act 537 Planning for the transfer of the ownership, operation, and maintenance of a Private WWTP to a Public Entity, in this case, SCMA

B. Client (Municipality) Information

Municipality Name	County	City	Boro	Twp
SCMA	Schuylkill	☐	☐	☐

Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Caulfield	Patrick			Executive Director
Additional Individual Last Name	First Name	MI	Suffix	Title
Batdorf	Amy			Assistant Director

Municipality Mailing Address Line 1	Mailing Address Line 2

Address Last Line -- City	State	ZIP+4
221 S. Centre St, Pottsville	PA	17901

Phone + Ext.	FAX (optional)	Email (optional)
570-622-8240		

C. Site Information

Site (or Project) Name	(Municipal Name) Act 537 Plan
Seiders Hill WWTP	

Site Location Line 1	Site Location Line 2
North Manheim Township	505 Gordon Nagle Trail, Pottsville, PA 17901

D. Project Consultant Information

Last Name	First Name	MI	Suffix
Stevens	Pamela		

Title	Consulting Firm Name
Civil Engineering Department Manager	Systems Design Engineering, Inc.

Mailing Address Line 1	Mailing Address Line 2
1032 James Dr	

Address Last Line – City	State	ZIP+4	Country
Leesport	PA	19533	USA

Email	Phone + Ext.	FAX
p.stevens@sdei.net	610-916-8500	610-916-8501

Sewage Facilities Plan Outline

Seiders Hill WWTP is currently owned and maintained by the **Schuylkill County Municipal Authority.**

The purchase of an existing privately-owned wastewater facility by a public entity presents new facts and issues which was not addressed in the previous Act 537 plan which covers the privately-owned wastewater disposal system. This necessitates Act 537 planning in order to ensure that the purchase and management of the facility adequately meets the existing and future sewage disposal needs of the residents of the areas served by the wastewater treatment facility being purchased. The planning should, among other things, address any changes in the areas served and the responsibilities of the municipality and the purchasing entity with respect to the operation and maintenance of the facility.

The scenario is that a public entity plans to purchase a privately owned and operated wastewater collection, conveyance or treatment system, and in this case SCMA already purchased the WWTP in 2020. In addition, the following items are assumed in the scenario:

- Existing sewage needs identified in the municipality's current Official Sewage Facilities Plan (Act 537 Plan) are resolved, or the existing needs have been identified and resolutions have been provided in the existing Act 537 Plan.
- There are no ongoing Municipal Wasteload Management (Chapter 94) issues with respect to the collection, conveyance, or treatment components of the existing system, or the issues are in the process of being resolved through an executed Consent Order and Agreement (CO&A).
- There are no ongoing Combined Sewer Overflow (CSO) compliance issues that have not been addressed with the Department or the U.S. Environmental Protection Agency (EPA).
- There are no major compliance issues with the Department or EPA that require structural or administrative improvements that would require the completion of sewage planning, under the Sewage Facilities Act (Act 537), that has not yet been accomplished.

The following sewage facilities plan outline is the same checklist out line as the Township's Act 537 Plan, and in Appendix K expands on the framework for the planning effort to cover the assumed scenario. The municipality or municipal authority and private entity have contacted the Regional Act 537 Planning staff and were given the attached checklist to facilitate the incorporation of the Seiders Hill WWTP new ownership into the current Act 537 Plan Amendment. As this is an existing WWTP and only the ownership changed, everything else in the Act 537 Planning Process remained the same. The Private to Public checklist for the Act 537 Plan is incorporated into Appendix K, specific to Seiders Hill WWTP.

Municipalities are required to develop and implement comprehensive official plans which provide for the resolution of existing sewage disposal problems and provide for the resolution of future sewage disposal needs of the municipality. The current Official Act 537 Plan of the municipality must be revised through official action to acknowledge the private acquisition of the POTW. The Plan Update or Special Study must reflect the changed ownership of the sewage facilities to ensure that current and future sewage disposal needs of the municipality will be met. The Planning will ensure the municipality, and the private entity will cooperate to address any current and future sewage disposal needs.

1.5 There are other areas within the Township that are currently being served by public sewers owned by the other entities mentioned in Section 1. Portions of the Township consisting of the area of the Chestnut Hill development and the Cressona Mall are owned and maintained by the Cressona Borough Authority. **Seiders Hill**, which is a residential/commercial development located in the northwestern portion of the Township has a wastewater treatment facility and collection system which is owned and operated by the **Schuylkill County Municipal Authority (SCMA)**.

1992	Seider's Hill Development Act 537 Plan – Section 3A	Construction of sewage collection system and WWTP for the Seiders Hill Development

3.1 Wastewater generated in North Manheim Township that is discharged to the public sewer system is conveyed to and treated at one of four public WWTPs; the Schuylkill Haven WWTP, the Cressona WWTP, the Pottsville WWTP, or the **Seiders Hill WWTP (owned and operated by the SCMA)**. In addition, a portion of the Township in the Orwigsburg Basin is serviced by other treatment facilities which are privately owned and operated by Sammy's Mobile Home Park, the Blue Mountain High School and Roadhouse 61 (formerly Bums Rush). It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale. The extent of drainage basins within the Township are shown on Map 12, included in Appendix A. This map reflects the Seiders Hill Basin area.

Section 2 – Planning

No alternatives are proposed for the Seiders Hill Basin. Any area identified on the Maps for future service was not financially feasible; therefore, no additional investigation was performed. The costs are included in Exhibit 2 of this Appendix K.

The Public Comments, Adoption, Advertisement, Schedule and Community Notifications will be made part of the overall Act 537 Plan.

3.5 Seiders Hill Basin

Wastewater generated in the **Seiders Hill Basin** is conveyed and treated at the **Seiders Hill WWTP**. Both the WWTP and sewage collection and conveyance system were owned and operated by Seiders Hill LLC until July 2020, at which time, they were acquired by the Schuylkill County Municipal Authority (SCMA). Currently, the system serves a total of 123 equivalent dwelling units (EDU's) at the WWTP, of which, 51 EDUs consist of residential properties. The commercial properties in Seiders Hill development include an independent living facility (Luther Ridge at Seiders Hill), a medical office building, and a governmental office building that houses the local USDA, Schuylkill County Co-Op Extension, and the Schuylkill County Conservation District. Seiders Hill LLC also owns property south of the Gordon Nagle Trail, which is not currently sewered and used as youth soccer and softball fields.

On October 25, 2016, the North Manheim Township Zoning Hearing Board granted a special exception for a 48-bed skilled nursing care facility in the development, which is serviced by a commercial grinder pump station that discharges to the existing sewage collection system, and treated at the existing **Seiders Hill WWTP**. The facility (Green Valley Skilled Nursing and Rehabilitation Center) is located on what is known as Lot 114, which is just south of the governmental building on Red Horse Road. The 48-bed facility went online in 2020 and was assigned 13 EDUs.

3.5.1 Seiders Hill Wastewater Treatment Plant:

Seiders Hill WWTP is operated under NPDES Permit No. PA0063096. The current permit limits and description are as follows:

Flow	30,000 GPD Design Capacity
Total Suspended Solids	30.0 mg/L Average Monthly
Carbonaceous BOD	25.0 mg/L Average Monthly
Fecal Coliform	2,000 CFU/100 ml Instantaneous Maximum
Dissolved Oxygen	5.0 mg/L minimum
pH	6.0 S.U. minimum
	9.0 S.U. maximum
Total Residual Chlorine	1.2 mg/L Average Monthly
	2.8 mg/L Instantaneous Maximum

Seiders Hill LLC entered into a Sewer System Acquisition Agreement with both North Manheim Township and the North Manheim Township Authority on January 12, 1993. The agreement stated that Seiders Hill LLC shall construct a sewage collection system and wastewater treatment plant to service the Seiders Hill LLC. The wastewater treatment plant is to be constructed in three (3) phases, with each phase consisting of 30,000 GPD of treatment.

The agreement further states that the Township has the right to reserve 13,000 GPD of capacity within the facility and that the collection system and treatment plant can be dedicated to the North Manheim Township Authority for operation and use if such dedication is mutually agreeable to both parties. The agreement was subsequently amended by addendum on four separate occasions to address successive phases of development. These addendums occurred in 1995, 1997, 2003, and 2005. The existing agreement and subsequent addendums between **Seiders Hill LLC** and the Township were replaced by an agreement with **SCMA**. Refer to the Agreement included in Appendix B of the Township wide .

Schuylkill County Municipal Authority (SCMA) entered into a Contract Operations Agreement with **Seiders Hill** on April 1, 2018. SCMA acquired the Seider's Hill system on July 1, 2020.

The Township, NMTA and **Schuylkill County Municipal Authority** negotiated a new agreement as a result of the acquisition of the system by SCMA, which was fully approved and executed on November 15, 2023. NMTA retained its 13,000 GPD reserve capacity or other sewer capacity if available at the wastewater treatment plant.

4.2.3 Zoning Hearing Board:

The North Manheim Township Zoning Hearing Board granted a special exception for a 48-bed skilled nursing care facility on **Lot 114 of the Seiders Hill** development on October 25, 2016. Based on the approved Planning Module, this facility was to generate 3,862 gpd. This facility was completed in 2020.

Table 4.6: 20-Year Wastewater Flow Projections for the Seiders Hill Basin

Source	*Proposed EDUs*	*Existing Flows (400 gpd/EDU)*	*Proposed Additional Flow*	*Total Projected 20-Year Flow*
Metered Flows	---	19,700 GPD	0 GPD	19,700 GPD
Proposed Developments (1)	11	0 GPD	3,862 GPD	4,514 GPD
Potential Developable Land	---	0 GPD	0 GPD	0 GPD
Connections of On-Lots (2)	23	0 GPD	9,200 GPD	9,200 GPD
Miscellaneous Infill	---	0 GPD	0 GPD	0 GPD
TOTALS	**31**	**19,700 GPD**	**13,062 GPD**	**33,414 GPD**

Notes:

(1) *The proposed flow is equal to 2 residential lots at 326 gpd plus 3,862 gpd allocation for Lot 114, as presented in Seiders Hill Semi-Annual Reports.*

(2) *Assumed properties along Glenworth Road that are serviced by on-lot disposal systems that can be reasonably connected to the existing system by an extension.*

Table 4.8: Summary of Wastewater Flow Projections

Source	*Existing Flows*	*Projected 5-Year Flows*	*Projected 20-Year Flows*
Schuylkill Haven Basin	197,245 GPD	0 GPD	235,515 GPD
Cressona Basin	51,600 GPD	0 GPD	76,800 GPD
Pottsville Basin	9,600 GPD	2,800 GPD	12,400 GPD
Seiders Hill Basin	19,700 GPD	3,862 GPD	33,414 GPD
Orwigsburg Basin	0 GPD	0 GPD	108,400 GPD
TOTALS	**285,900 GPD**	**6,662 GPD**	**486,837 GPD**

5.1 Identified Needs: Population and wastewater flow projections were developed in Chapter 4 for a 20-year planning period. Projections developed in Chapter 4 for those portions of North Manheim Township tributary to the each of the WWTPs indicates the existing facilities have sufficient capacity to handle the Township's projected growth, with the exception of the current **Seiders Hill WWTP**. However, this facility is permitted for up to 90,000 gals/day if two (2) additional treatment units are constructed.

Table 5.1: Comparison of Flow Projections to Current Permitted Capacity (GPD)

Conditions	*SHB WWTP*	*CBA WWTP*	*GPASA WWTP*	*Seiders Hill WWTP* [1]	*Orwigsburg WWTP*
Current Conditions					
Annual Average Flow	963,000	339,000	4,870,000	11,200	518,000
Maximum 3-Month Flow	1,170,000	428,000	5,950,000	15,800 [2]	667,000
Projected Needs					
Annual Average Flow [3]	43,885	25,200	2,800	13,062	108,400
Maximum 3-Month Flow [4]	53,318	31,816	3,420	18,426	139,580
Projected Conditions					
Annual Average Flow	1,006,885	364,200	4,872,800	24,264	626,400
Maximum 3-Month Flow	1,223,318	459,816	5,953,420	34,226	806,580
Current Permit Conditions					
Permitted Flow	2,800,000	720,000	8,200,000	30,000	1,300,000
Projected Shortfall [5]					
Flow Above Permitted Flow	0	0	0	4,226	0

(1) *Seiders Hill WWTP data based on 2019 DMR data. No DMRs have been received by NMTA since SCMA began operating, then acquiring the Seiders Hill WWTP facilities.*

(2) *Per agreement, capacity is based on Maximum Monthly Flow rather than 3-month Maximum Monthly Flow.*

(3) *Projected Needs (Annual Average Flow) is as presented in Section 4.*

(4) *Projected Needs (Maximum 3-Month Flow) = Projected Needs (Annual Average Flow) times Current Conditions (Maximum 3-Month Flow) divided by Current Conditions (Annual Average Flow).*

(5) *Projected Shortfall = Projected Conditions (Maximum 3-Month Flow) minus Current Permit Conditions.*

If the existing **Seiders Hill WWTP** is expanded with a second 30,000 GPD unit, the Township's sewage needs can be handled with existing facilities. The Township may need to secure additional treatment capacity in other area municipal sewer systems through amendments to existing inter-municipal agreements if any of the collection system alternatives are implemented.

5.2.1 Conventional Treatment Systems:

As described in Section 3, North Manheim Township utilizes wastewater treatment services of the Schuylkill Haven WWTP, Cressona Borough Authority WWTP, Greater Pottsville Area Sewer Authority WWTP and **Seiders Hill WWTP (SCMA)** for different portions of the Township. There are also three privately owned WWTPs which provide sewer service to properties within the Township: Sammy's Mobile Home Park, Blue Mountain High School and until recently, Roadhouse 61 (formerly Bums Rush). It is understood that as of April 2024, Roadhouse 61 is permanently closed and is up for sale. Given the condition of the existing treatment facilities, the infrastructure in place to convey wastewater to these WWTPs and the existing commitments to provide sanitary sewer service, continued use of these WWTPs to provide wastewater treatment is a most practical alternative for the existing sanitary sewer service areas. Potential service areas expansions, as identified in Section 5.3 below, are proposed are based on utilization of these WWTPs.

5.2.6 Public sewers are not planned for most of the Township that is currently served by on-lot disposal systems. Therefore, it is important that the systems are properly operated and maintained. The Township currently does not have a sewage management program for on-lot disposal systems. While a sewage management program was proposed in the 1992 **Seiders Hill Land Development Act 537 Plan** – Section 3A, this proposed program was not acted on by the Township. The Township should consider a program to provide a mechanism by which the operation and maintenance of private on-lot disposal systems are regulated and monitored.

5.4.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road):

The 1992 Seiders Hill Land Development Act 537 Plan – Section 3A states that the Seiders Hill development was estimated to contain 236 Equivalent Dwelling Units with a total average daily sewage flow of 77,000 GPD. The proposed WWTP would have a total capacity of 90,000 GPD, with 13,000 GPD or approximately 40 EDUs reserved for Township use. The WWTP would be constructed in 30,000 GPD modular units and be expanded in accordance with an agreement between the developer and the Township.

The 1992 **Seiders Hill Land Development Act 537 Plan** – Section 3A provided minimal information concerning the where potential future sewer extensions would be located; however, the Plan did state that properties along Glenworth Road, SPCA Road (Twp Hwy 696), and Cressona Road could potentially be serviced. Map No. 17B in Appendix A provides a layout that services the properties along these three (3) roads.

6.1.2 Municipal Wasteload Management Plans:

Schuylkill County Municipal Authority

The **Schuylkill County Municipal Authority (SCMA)** acquired the **Seiders Hill WWTP** system from Seiders Hill, LLC on July 1, 2020, and serves as the current owner and operator of the entire collection system, pumping station and treatment plant. Prior to 2020, the system was a private system, and a Chapter 94 Wasteload Management Report had not been required for this facility. Under the terms of the previous agreement, the Township had a reserve capacity of 13,000 GPD. The current agreement NMTA has with SCMA retained this reserve capacity.

6.4.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road): Map 17B

This alternative extends sanitary sewer service on Glenworth Road; as well as, Cressona Road, SPCA Road, and a portion of SR183. The intent of this alternative is to provide sewage service to the **Schuylkill County Municipal Authority's Seiders Hill Wastewater Treatment Plant** utilizing gravity sanitary sewers. A total of 23 properties would be served under this alternative. This alternative does not address any known sewage needs.

Opinion of Probable Construction Cost

The Opinion of Probable Construction Cost for this alternative is $1,978,975. This equates to a cost of $86,042 per EDU.

6.5.2 Seiders Hill Basin –Extension No. 1 (Glenworth Road / SPCA Road):

Table 6.5 provides a summary of the financing for Alternative 2. Other financial costs need for implementation of this alternative are the additional administration fees and user fee to SCMA. The resultant user rate is $294.05/EDU per month based on PENNVEST financing at Berks County cap rates for a 20-year period. To make the project affordable, $4,162,000 in grant funding is needed for the project to result in a user rate equal to 2% of the MHI utilizing PENNVEST financing at 1.0% for 25-years.

Table 6.5: Summary of Seiders Hill Basin –Extension No. 1 Financing

Description	*Costs*
EDUs	23
Construction Cost	$1,978,975
Tapping Fees ($400/EDU)	$9,200
Total Project Cost	$1,969,775
User Rate per Month with No Grant	$450.82/EDU
Grant Funding	$1,643,092
User Rate per Month with Grant	$109.08/EDU

This alternative is not financially viable without a majority of the project being financed through grant funding since the user rate significantly exceeds 2.0% of the median household income.

7.1.7 Schuylkill County Municipal Authority:

Through an agreement with North Manheim Township Authority, **Seider's Hill LLC** owned and operated a private system. With the acquisition of this system by the **Schuylkill County Municipal Authority in 2020, SCMA** can improve, maintain, and operate these public sewage facilities. An agreement between the Township, NMTA, and **SCMA** has been executed. Future expansion to sewage facilities in the **Seiders Hill Basin** are addressed in the agreement located in Appendix B.

8.1 Selected Wastewater Management Approach

The selected approach to wastewater management in North Manheim Township is to continue to rely on public sewer service for those properties currently connected to public sewer; as well as those areas with current approved planning for public sewer and to implement an on-lot management program for the developed parcels currently not serviced by public sewers. **Use of multiple WWTPs for treatment will continue**, with no immediate change to the service basin boundaries for these facilities within the Township.

Additional public sewer service areas other than described herein are not proposed for any other portion of the Township over the next 5 years. The remainder of North Manheim Township will continue to rely on on-lot wastewater treatment and disposal systems. North Manheim Township is primarily zoned for low density development that is not conducive to extension of public sewage facilities. This combination of public sewer service for the developed area and reliance on on-lot treatment for the rural areas of the Township should meet the existing and projected 20-year needs of the Township absent the development of a large parcel of land.

Based on the analysis conducted as part of this Plan, the selected alternatives represent the most cost-effective approach, while preserving Township water resources and abiding by the vision of the Township, including natural resource preservation, established by the County and Township Comprehensive Plans. The selected alternatives will maximize use of the existing operation, maintenance, and administrative structure of the Township, while enhancing operation and maintenance through continued implementation of a sewage management program and a continued sewer system rehabilitation program.

The remaining steps needed to implement the selected wastewater management approach are as follows:

- Continue to convey wastewater from the public sewer service areas of the Township to existing WWTPs. Adjust user rates and tapping fees as needed within these areas to generate sufficient revenue to fund operational and maintenance costs of the system.
- Continue to perform routine maintenance and rehabilitation, as necessary, of the existing public sewer system to maintain adequate conveyance capacity and long-term structural integrity of the system.
- Continue to rely on on-lot wastewater treatment and disposal systems for developed properties located outside the sewer service areas.

- Develop and implement an On-Lot Management Program for continued maintenance of privately owned on-lot systems.

  Currently, there are approximately 365 residential properties served by either a publicly-owned sanitary sewer system or a privately-owned sanitary sewer system. This equates to a population of 876 persons, or 23.6% of the Township's total population. The remaining properties utilize private on-lot disposals systems.

  This document has been prepared as an updated Act 537 Plan to include reference to the numerous revisions/updates previously submitted over the prior years by North Manheim Township/North Manheim Township Authority to PADEP, as follows:

- April 15, 1970 – "Water and Sewerage Feasibility Study and Act 537 Planning", Gilbert Associates, Inc.
- February 19, 1975 – "Sewerage Feasibility Report", Gilbert Associates, Inc.
- September 1990 – "Sewer Feasibility Study", Leonard Schickler Associates and Engineering Management, Inc.
- October 21, 1992 – "**Seiders Hill Act 537 Plan**", Martin and Martin.
- February 1,1993 – "Special Study Act 537 Plan for Route 443, Hilltop Mobile Home Park, & Main Street Areas" – Systems Design Engineering, Inc.
- October 2023 – "Component 3M Sewage Facilities Planning Module" for Act 537 Minor Update Revision, along Garfield Avenue, West 2nd Mountain Road, North Manheim Road and associated connecting streets.

After an evaluation of available alternatives, the Township has selected the following approach to satisfy its existing and projected wastewater conveyance and treatment needs:

- **Continue to convey wastewater from the public sewer service areas of the Township to existing WWTPs, which includes the Seiders Hill WWTP owned and maintained by SCMA.** Adjust user rates and tapping fees as needed within these areas to generate sufficient revenue to fund operational and maintenance costs of the system.
- Continue to perform routine maintenance and rehabilitation, as necessary, of the existing public sewer system to maintain adequate conveyance capacity and long-term structural integrity of the system.
- Begin negotiations with the Borough of Cressona and Cressona Borough Authority concerning an intermunicipal agreement. The intermunicipal agreement should encompasses both the existing sewer areas within North Manheim Township that convey sewage to the Cressona Borough Authority's WWTP; as well as additional future sewage that may be generated from the currently unsewered parcels.
- Continue to rely on on-lot wastewater treatment and disposal systems for developed properties located outside the Township's sewer service areas.

- Develop and implement an On-Lot Management Program. This will require the adoption of a new ordinance. Once a new ordinance is adopted, the Township's administrative staff and SEO should be charged with implementation of the program.
- Identify, apply for, and secure adequate grant funding to potentially provide public sewage system in the future.

The institutional arrangements necessary for the implementation of this Plan already exist; however, an intermunicipal agreement with the Borough of Cressona is needed. No new municipal departments or municipal authorities are required to implement the proposed plan. The current arrangement of ownership and operation has satisfactorily met the Township's needs and is expected to meet the long-term needs of the Township.

END OF APPENDIX K NARRATIVE CONCERNING THE TRANSFER OF THE OWNERSHIP AND MAINTENANCE OF THE SEIDERS HILL WWTP TO SCMA

APPENDIX K

EXHIBIT 1 NMTA AND SCMA SEIDERS HILL INTERMUNICIPAL AGREEMENT 11/15/2023

NMTA and SCMA Seiders Hill Inter-Municipal Agreement, 11/15/2023

INTER-MUNICIPAL AGREEMENT

I. **DATE:** This Inter-Municipal Agreement ("Agreement") is being entered into on the 15th day of November 2023.

II. **THE PARTIES:** This Agreement is being entered into by and between **NORTH MANHEIM TOWNSHIP AUTHORITY**, a Municipal Authority duly organized and existing under the laws of the Commonwealth of Pennsylvania with a mailing address of 303 Manheim Road, Pottsville, PA 17901 ("NMTA"), **SCHUYLKILL COUNTY MUNICIPAL AUTHORITY**, a Municipal Authority duly organized and existing under the laws of the Commonwealth of Pennsylvania with an address and place of business located at 221 South Centre Street, Pottsville, Schuylkill County, Pennsylvania 17901 ("SCMA"), and NORTH MANHEIM TOWNSHIP, a Township of the second class with a mailing address of 303 Manheim Road, Pottsville, Schuylkill County, Pennsylvania 17901 ("NMT").

III. **FACTUAL BACKGROUND:** Intending to be legally bound, NMTA, SCMA and NMT agree as follows:

1. Prior to 1993, entities known as Seiders Hill, Inc. and Seiders Hill Cooperative Association (collectively "Seiders Hill") acquired title to property along the Gordon Nagle Trail (SR 901) in North Manheim Township.

2. Seiders Hill was a private entity which subdivided and developed certain portions of its property in North Manheim Township. The development consists of residential building lots and homes as well as several commercial customers.

3. On or about January 12, 1993, NMTA, NMT and Seiders Hill entered into an agreement ("1993 Agreement") pursuant to which Seiders Hill constructed a sewage treatment plant ("Plant") consisting of one (1) 30,000 gallons per day (gpd) phase with the capability of

constructing two (2) additional phases of 30,000 gpd for a total of 90,000 gpd in order to provide wastewater treatment service to the Seiders Hill development and NMT.

4. As part of the 1993 Agreement, Seiders Hill agreed to provide to NMTA at no cost or expense a reserved capacity allocation in its Plant of a total of 13,000 gallons per day, or 14.44% of the total 90,000 gpd of capacity for NMTA's sole and separate use or that of its customers.

5. NMTA, NMT and Seiders Hill entered into addendums to the 1993 Agreement. These addendums were required as Seiders Hill continued to develop its real estate in phases and to specifically address the sewage capacity requirements, plant expansion and reporting requirements. These subsequent addendums and agreements were executed by Seiders Hill, NMTA and NMT all of which were assigned by Seiders Hill to SCMA including the following:

a, Phase 2 Addendum (March 27, 1995);

b. Phase 6 Addendum (December 18, 1997);

c. Phase 2 Plant Addendum (July 15, 2003);

d. Lot 114 Addendum (October 11, 2005); and

e. Lot 114 Release of EDU's (February 26, 2018); and

f. The parties acknowledge that while no Phase 3 Addendum exists, SCMA is obligated to make all improvements to the Plant required to connect Phase 3 to the Plant, to reserve 9 EDUs for the lots 1, 2 and 3 created pursuant to the Subdivision of Seiders Hill Lot 114 and Annexation of a portion of Lot 115 recorded in Map Book 58, page 849 and to release EDUs to provide sewer service to lot numbers 1,2,3,4,74,75,79,80,112,113 and 119 and to comply with the Acquisition Agreement dated July 1, 2020.

g. Nothing in this Agreement negates the requirements of SCMA to comply with the terms of the Acquisition Agreement and SCMA shall use reasonable efforts to notify NMTA in the event that any of the lots set forth in (f) above are transferred to a third party or are released for construction or development in accordance with Paragraph 7.

6. On or about July 1, 2020, SCMA entered into an Asset and Obligation Agreement with Seiders Hill pursuant to which SCMA (subject to the written approval of NMT and NMTA) assumed all addendums and agreements and acquired all of Seiders Hill's right, title and interest of, in and to the Plant, together with all collection and conveyance lines, pump station and other appurtenances related to the Plant and the sanitary sewer system. In addition, SCMA also acquired title to the Plant and the parcel on which the Plant is located and operating.

7. In order to alleviate NMTA's concerns about its reserved capacity of 13,000 gallons per day as set forth in the 1993 Agreement ("Reserve Capacity"), and to address additional and future issues now that SCMA has acquired all of Seiders Hill's rights, title and interest of, in and to the Plant, collection and conveyance system, representatives from SCMA, and professionals for NMT and NMTA met on August 19, 2020 and June 13, 2022.

8. NMTA, NMT and SCMA enter into this Agreement in order to formally approve the transaction of July 1, 2020 to outline their respective rights, duties and obligations vis-à-vis each other as it relates to SCMA's continued future operation of the Plant and conveyance and collection system.

IV. **INTENT OF THE PARTIES:** Intending to be legally bound and for good and valuable consideration, the parties covenant and agree as follows:

1. This Agreement shall supersede and memorialize all discussions between the parties prior to and including at the August 2020 and June 2022 meetings between their respective representatives and professionals.

2. The parties intend for this Agreement to memorialize the rights, duties and obligations which the parties shall have towards each other vis-à-vis SCMA's continued operation of the Plant and collection and conveyance system.

3. The parties intend for this Agreement to terminate and supersede all prior addendums and agreements listed and set forth in Section III above.

V. **TERMS AND CONDITIONS:** For good and valuable consideration, the parties agree as follows:

1. SCMA's Continued Operation of the Plant and Collection and Conveyance System.

A. SCMA agrees that it shall continue to operate the Plant and collection and conveyance system in a manner that is consistent with all applicable government rules and regulations, including all rules and regulations set forth by the Commonwealth of Pennsylvania, Department of Environmental Protection ("DEP").

B. SCMA agrees that it shall hire, retain and otherwise assign duly licensed, competent, experienced and qualified plant operators and personnel to operate the Plant and all aspects of the sewage collection and conveyance system.

C. SCMA shall promptly and timely complete and submit all required test results and data that may be required by the DEP. Furthermore, SCMA shall make such test results and reporting available to NMTA and its representatives upon written request. However, SCMA shall not be responsible for any NMTA engineering or legal costs associated with any requests made by NMTA for this information, nor shall NMTA be responsible for any SCMA engineering or legal costs associated with these requests.

D. SCMA shall promptly notify NMTA in writing of any material operational or other issues or problems that may arise at the Plant which would constitute a clear and present risk or danger to the residential and commercial customers of the Plant.

2. Transfer of Permit and Submission of Act 537 Plans.

A. To the extent required by DEP; SCMA, NMTA and NMT shall reasonably cooperate with each other and shall meet to share information and proposed submittals prior to the same being submitted and provided to DEP by SCMA with respect to SCMA's obligation to transfer NPDES permit # 63096 for the Plant and SCMA's submission of any and all Act 537 Plans or other planning and permitting documents required by DEP given SCMA's acquisition of the Plant and assets from Seiders Hill.

3. Information to be Furnished by SCMA.

A. SCMA shall provide to NMTA such rate/flow studies in order to allow both parties to assess the actual usage at the Plant.

B. SCMA shall provide to NMTA a copy of the annual Treatment plant report covered by DEP's Municipal Wasteload Management Regulations in Chapter 94 ("Chapter 94 Report").

4. Deferral of NMTA's Reserve Capacity.

A. NMTA agrees that it shall defer the 13,000-gallon-per-day Reserve Capacity set forth in the 1993 Agreement until needed by NMTA, to allow other users within the Seiders Hill development to connect to the Plant.

In the event any person or entity submits plans, permits or other applications requiring sanitary sewer capacity outside of the Seiders Hill Development to NMT and NMTA for property which would, per applicable DEP approved ACT 537 Plans and submittals, require wastewater to be treated at the Plant, then SCMA at that time shall if necessary to provide sewage capacity, construct those improvements to the Plant required to provide the 13,000-gallon-per-day Reserve Capacity at no cost or expense to NMTA or NMT. However SCMA expressly reserves the right to pass along all applicable costs of Plant expansion in excess of those costs generated to provide the 13,000 of reserve capacity, in whole or in part, to the purchasers / developers requiring such capacity at the discretion of SCMA.

5. Future Customers of the Seiders Hill System.

A. SCMA agrees to continue to operate the Plant, collection and conveyance system in compliance with the approved PADEP Section 3A of NMT Act 537 Plan revised June 1992 and all other regulatory requirements and will permit additional connections in the Seiders Hill development as physical capacity is available and within reason based upon the then current annual PADEP Chapter 94 Municipal Wasteload Management Report.

B. NMT, NMTA and SCMA expressly intend, understand and agree that neither party shall have the ability to reasonably reject or refuse to agree to a potential future customer connecting to and otherwise tying into the Seiders Hill system. Nothing

in this paragraph/section shall preclude SCMA, NMTA or NMT from rejecting a planning approval or permit application from a potential customer wishing to connect to or tie into the Seiders Hill system as a result of any defects or deficiencies in the permit application and any accompanying documentation required by NMTA and/or NMT as a part of such permit application process.

6. The Area Pursuant to Which NMTA's 13,000-Gallons-Per-Day Reserve Capacity Applies.

A. Seiders Hill received planning approval from DEP for the Seiders Hill Act 537 Plan Special Study which provided approval for a Plant capable of treating up to 90,000 gpd providing for 276 EDUs at 326 gpd per EDU for an area identified on Exhibit "A".

B. Attached to this Agreement as Exhibit "A" is a map showing the area of potential future development within North Manheim Township that forms the basis for the 13,000-gallon-per-day reserve capacity and the future service area shown on Exhibit "A" and as set forth in this Agreement.

C. NMTA and NMT intend, understand and agree that only the service area shown on Exhibit "A" shall be available for the 13,000-gallon-per-day Reserve Capacity set forth in this Agreement or other sewer capacity if available at the Plant. SCMA shall not be obligated to accept any additional NMT customers that are not within the original Seiders Hill development or located within the NMT Basin Map providing for service by NMTA as shown on Exhibit "A."

7. NMTA and SCMA shall bear their own legal costs and expenses in connection with the negotiation of and execution of this Agreement.

8. Insofar as SCMA is a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania and has the ability to effectuate rate increases across its county-wide water and wastewater systems, SCMA shall not be required to post any form of bond, security, letter of credit or other financial instrument in order to operate the Seiders Hill system going forward.

9. Although Seiders Hill previously agreed that Lot numbers 1, 2, 3, 4, 74, 75, 79, 80, 112, 113 and 119 of Seiders Hill and Lots 1, 2 and 3 created pursuant to Subdivision of Seiders Hill Lot 114 and Annexation of a portion of Lot 115 recorded in Map Book 58, page 849 (collectively "Lots") shall not be marketed, sold or otherwise transferred from or by Seiders Hill as said lots have no sewage capacity in the Plant, the parties agree that those Lots may be marketed, sold or otherwise transferred for future development and construction so long as the owners of those Lots fully comply with and abide by all applicable NMT and NMTA rules, regulations, zoning and permit requirements and the anticipated or proposed sewage capacity required for each of the Lots is available at the Plant based upon the most recently approved annual Chapter 94 Report. SCMA shall notify NMTA and request any approvals necessary prior to issuing any permits or approvals to connect the Lots to the Plant.

10. In the event that a potential sewage customer located within the NMT /NMTA service area requests sewage capacity in excess of the 13,000 gpd of reserved sewage capacity, the parties shall negotiate in good faith to provide additional capacity to NMT and NMTA.

VI. **CHOICE OF LAWS/VENUE:** The parties expressly intend, understand and agree that Pennsylvania law shall apply to this Agreement. The parties further expressly intend, understand and agree that any and all claims, suits, disputes and legal proceedings arising out of this Agreement shall be brought, filed and litigated exclusively in the Court of Common Pleas of

Schuylkill County, Pennsylvania and not in any other local, state or federal court of the Commonwealth of Pennsylvania or the United States of America. However, the parties may mutually agree to submit any claim, suit, dispute or legal proceeding arising out of this Agreement to non-binding mediation before a mutually agreed upon mediator.

VII. ENTIRE AGREEMENT – NO MODIFICATION: This Agreement memorializes the entire understanding and agreement by and between the parties concerning its subject matter. There may be no additions, deletions or modifications to this Agreement unless the same are done in writing signed by all parties. SCMA represents and warrants it has full legal authority to enter into this Agreement and to terminate the agreements set forth below without any approval from Seiders Hill. This agreement expressly terminates the 1993 Agreement and all Addendums including:

1. Phase 2 Addendum (March 27, 1995);
2. Phase 6 Addendum (December 18, 1997);
3. Phase 2 Plant Addendum (July 15, 2003);
4. Lot 114 Addendum (October 11, 2005); and
5. Lot 114 Release of EDU's (February 26, 2018).

VIII. FURTHER ASSURANCES: The parties agree to take any steps reasonably necessary and execute any documents reasonably necessary to carry out the intent, terms and conditions of this Agreement.

IX. SIGNATURES: IN WITNESS WHEREOF AND INTENDED TO BE LEGALLY BOUND, THE PARTIES SET THEIR HAND AND SEAL UNTO THIS AGREEMENT ON THE DATE SHOWN ON PAGE 1, ABOVE:

NORTH MANHEIM TOWNSHIP AUTHORITY

Attest: _____ By: _____
Chairman

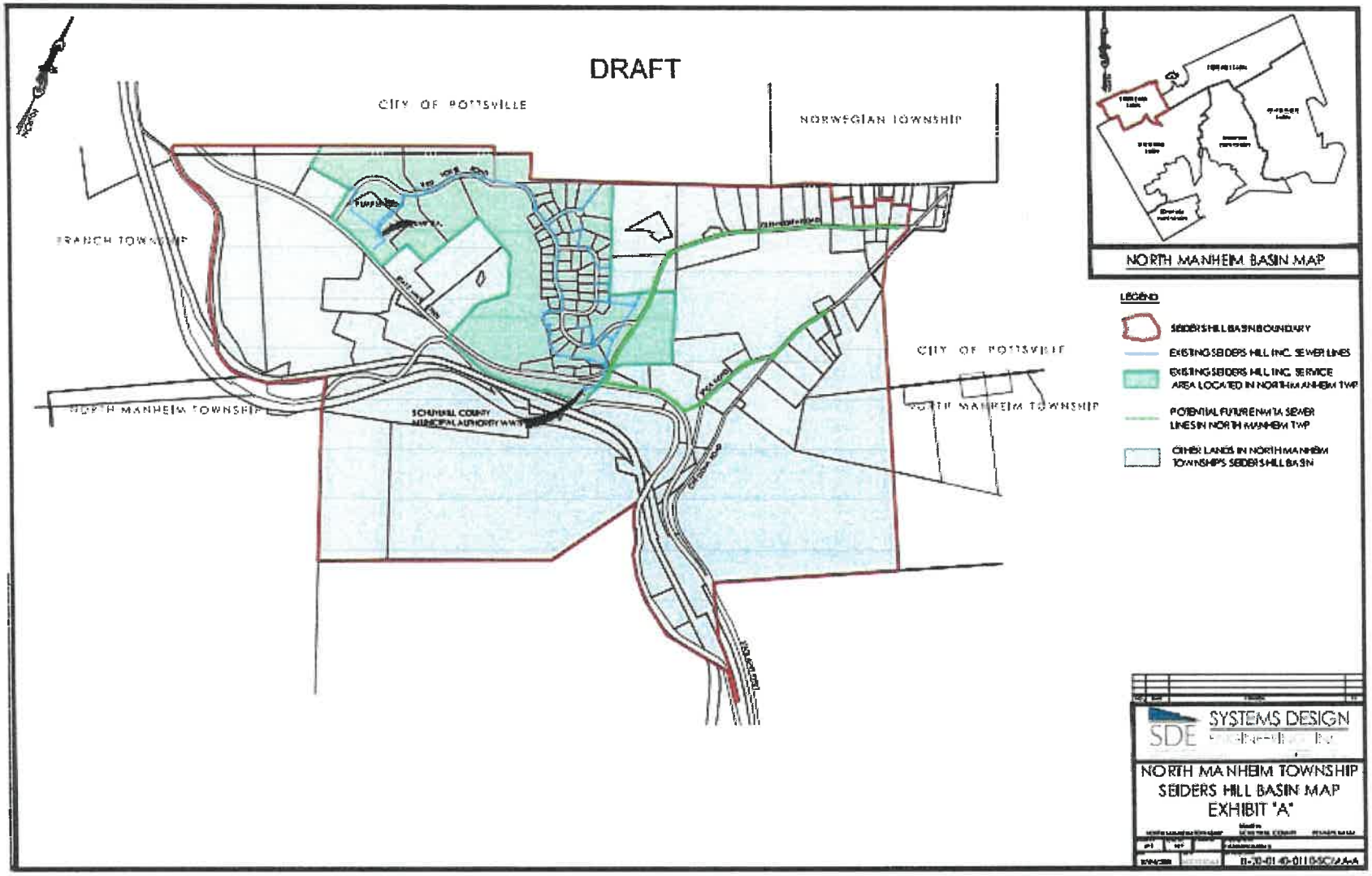
NORTH MANHEIM TOWNSHIP

Attest: _____ By: _____
Chairman

SCHUYLKILL COUNTY MUNICIPAL AUTHORITY

Attest: _____ By: _____

EXHIBIT "A"


DRAFT
CITY OF POTTSVILLE
NORWEGIAN TOWNSHIP
BRANCH TOWNSHIP
NORTH MANHEIM TOWNSHIP
CITY OF POTTSVILLE
NORTH MANHEIM TOWNSHIP
SCHUYLKILL COUNTY MUNICIPAL AUTHORITY WWTP
NORTH MANHEIM BASIN MAP
LEGEND
SEIDERS HILL BASIN BOUNDARY
EXISTING SEIDERS HILL INC. SEWER LINES
EXISTING SEIDERS HILL INC. SERVICE AREA LOCATED IN NORTH MANHEIM TWP
POTENTIAL FUTURE NMTA SEWER LINES IN NORTH MANHEIM TWP
OTHER LANDS IN NORTH MANHEIM TOWNSHIPS SEIDERS HILL BASIN
SYSTEMS DESIGN
SDE
NORTH MANHEIM TOWNSHIP
SEIDERS HILL BASIN MAP
EXHIBIT "A"

APPENDIX K

EXHIBIT 2 SEIDERS HILL BASIN EXTENSION NO. 1
GLENWORTH ROAD MAP 17B
AND ASSOCIATED COSTS ESTIMATES
AND MAPS 12 AND 13F FOR REFERENCE

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST
MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

Client: North Manheim Township **Prepared By:** MJP **Date:** 8/30/2018
Project No.: 17-0164-0113 **Checked By:** **Date:**
Project Name: Act 537 Sewage Facilities Plan Update

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SANITARY SEWER CONSTRUCTION - PENNDOT RIGHT-OF-WAY					
1	**8-in SDR-26 Sanitary Sewer Pipe**				
1A	PENNDOT Cartway	LF	1,960	$ 140.00	$ 274,400.00
2	**6-in SDR-26 Sanitary Sewer Pipe**				
2A	PENNDOT Right-of-Way (Assume 25 LF Each Building)	LF	175	$ 160.00	$ 28,000.00
3	**4-FT Diameter Standard Manhole**				
3A	PENNDOT Cartway	EA	9	$ 4,250.00	$ 38,250.00
4	**Restoration**				
4A	PENNDOT Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	1,590	$ 55.00	$ 87,450.00
4B	Unimproved Right-of-Way	SY	70	$ 30.00	$ 2,100.00
SANITARY SEWER CONSTRUCTION - TOWNSHIP RIGHT-OF-WAY					
5	**8-in SDR-26 Sanitary Sewer Pipe**				
5A	Township Cartway	LF	5,715	$ 120.00	$ 685,800.00
6	**6-in SDR-26 Sanitary Sewer Pipe**				
6A	Township Right-of-Way (Assume 25 LF Each Building)	LF	800	$ 80.00	$ 64,000.00
7	**4-FT Diameter Standard Manhole**				
7A	Township Cartway	EA	17	$ 4,250.00	$ 72,250.00
8	**Restoration**				
8A	Township Cartway (5.5-in Base Course + 1.5-in Wearing)	SY	4,640	$ 42.00	$ 194,880.00
8B	Unimproved Right-of-Way	SY	200	$ 25.00	$ 5,000.00
SANITARY SEWER CONSTRUCTION - IMPROVED EASEMENT					
9	**8-in SDR-26 Sanitary Sewer Pipe**				
9A	Lawn/Open Space	LF	250	$ 100.00	$ 25,000.00
9B	Unimproved Easement	SY	195	$ 25.00	$ 4,875.00
GENERAL CONSTRUCTION - BOROUGH STREETS					
10	**Miscellaneous Construction Items**				
10A	Miscellaneous Unclassified Excavation	CY	25	$ 40.00	$ 1,000.00
10B	Mescellaneous Stone in Place	TN	10	$ 37.00	$ 370.00
10C	Miscellaneous Plain Concrete	CY	3	$ 230.00	$ 690.00
10D	Mobilization and Closeout	%	5.00	$ 74,210.00	$ 74,210.00

COSTRUCTION COST	**$ 1,558,275**
LEGAL/ADMINISTRATION/FINANCIAL (2%)	$ 31,200
ENGINEERING (10%)	$ 155,800
INSPECTION (5%)	$ 77,900
CONTINGENCY (10%)	$ 155,800
PROJECT COST	**$ 1,978,975**

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE
OPINION OF PROBABLE PROJECT COST

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

Project		
Total Construction Cost	$	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
Total Cost to Finance	**$**	**1,969,775**
Operation & Maintenance Costs		
Administration	$	2.00
Treatment Cost per EDU per Month (1)	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**

Notes:

(1) Treatment Costs per EDU per Month are based on SCMA current rate of $160.00 per quarter.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)

FUNDING SOURCE	TERMS	TAPPING FEE	GRANT FUNDING	TOTAL DEBT FINANCED	MONTHLY DEBT SERVICE RATE	MONTHLY O&M RATE	TOTAL MONTHLY RATE	PERCENT OF MHI
WITHOUT GRANT FUNDING								
PENNVEST	1.000% for 5 yrs; 1.740% for 15 yrs	$9,200	$0	$1,969,775	$395.49	$55.33	$450.82	8.27%
PENNVEST	1.000% for 25 yrs	$9,200	$0	$1,969,775	$324.06	$55.33	$379.39	6.96%
USDA Rural Development	2.5% for 40 yrs	$9,200	$0	$1,969,775	$284.31	$55.33	$339.64	6.23%
Conventional Bank Loan	4.000% for 20 yrs	$9,200	$0	$1,969,775	$525.14	$55.33	$580.47	10.64%

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
COUNTY CAP RATES FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
PENNVEST Grant	$	-
PENNVEST Loan	**$**	**1,969,775**
Debt Service @ 1.000% for first 5 Yrs [1]		
Annual Debt Service	$	109,156
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	395.49
Quarterly Add'l Cost / EDU	$	1,186.48
Annual Add'l Cost / EDU	$	4,745.90
Debt Service @ 1.740% for next 15 Yrs [1]		
Remaining Principal	$	1,550,484
Annual Debt Service	$	118,333
Total Billing Units (EDUs) [2]		23
Monthly Add'l Cost / EDU	$	428.74
Quarterly Add'l Cost / EDU	**$**	**1,286.22**
Annual Add'l Cost / EDU	$	5,144.90
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost (first 5 Years)	$	450.82
Total Quarterly Cost (first 5 Years)	**$**	**1,352.47**
Total Annual Cost (first 5 Years)	$	5,409.86
Total Monthly Cost (next 15 Years)	$	484.07
Total Quarterly Cost (next 15 Years)	**$**	**1,452.21**
Total Annual Cost (next 15 Years)	$	5,808.86
Median Household Income [2]	$	65,445
Percent of MHI for Sewer Bill (first 5 Years)		**8.27%**
Percent of MHI for Sewer Bill (next 15 Years)		8.88%

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST we

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimat

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
1 PERCENT FOR 25 YEAR TERM

		WITHOUT GRANT FUNDING		WITH GRANT FUNDING
Project				
Total Construction Cost	**$**	**1,558,275**	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200	$	31,200
Engineering (10%)	$	155,800	$	155,800
Inspection (5%)	$	77,900	$	77,900
Contingency (10%)	$	155,800	$	155,800
Total Project Cost	**$**	**1,978,975**	**$**	**1,978,975**
Funding Sources				
Tapping Fee Rate	$	400.00	$	400.00
Equivalent Dwelling Units		23		23
Township Tapping Fee	$	9,200	$	9,200
PENNVEST Grant	$	-	$	1,643,092
PENNVEST Loan	**$**	**1,969,775**	**$**	**326,683**
Debt Service @ 1.000% for first 25 Yrs [1]				
Annual Debt Service	$	89,441	$	14,834
Total Billing Units (EDUs)		23		23
Monthly Add'l Cost / EDU	$	324.06	$	53.75
Quarterly Add'l Cost / EDU	**$**	**972.19**	**$**	**161.24**
Annual Add'l Cost / EDU	$	3,888.74	$	644.94
Administration	$	2.00	$	2.00
Treatment Cost per EDU per Month	$	53.33	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**	**$**	**55.33**
Total Monthly Cost	$	379.39	$	109.08
Total Quarterly Cost	**$**	**1,138.18**	**$**	**327.23**
Total Annual Cost	$	4,552.70	$	1,308.90
Median Household Income [2]	$	65,445	$	65,445
Percent of MHI for Sewer Bill		**6.96%**		**2.00%**

Notes:

(1) Interest rates utilized were the County Cap Rates for Schuylkill County from the PENNVEST website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
3.125 PERCENT FOR 40 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
USDA Rural Development Grant	$	-
USDA Rural Development Loan	**$**	**1,969,775**
Debt Service @ 2.5% for first 40 Yrs [1]		
Annual Debt Service	$	78,468
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	284.31
Quarterly Add'l Cost / EDU	**$**	**852.92**
Annual Add'l Cost / EDU	$	3,411.67
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost	$	339.64
Total Quarterly Cost	**$**	**1,018.91**
Total Annual Cost	$	4,075.63
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**6.23%**

Notes:

(1) Interest rates utilized were from the USDA Rural Development website.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.

NORTH MANHEIM TOWNSHIP AUTHORITY
SCHUYLKILL COUNTY, PENNSYLVANIA
ACT 537 SEWAGE FACILITIES PLAN UPDATE

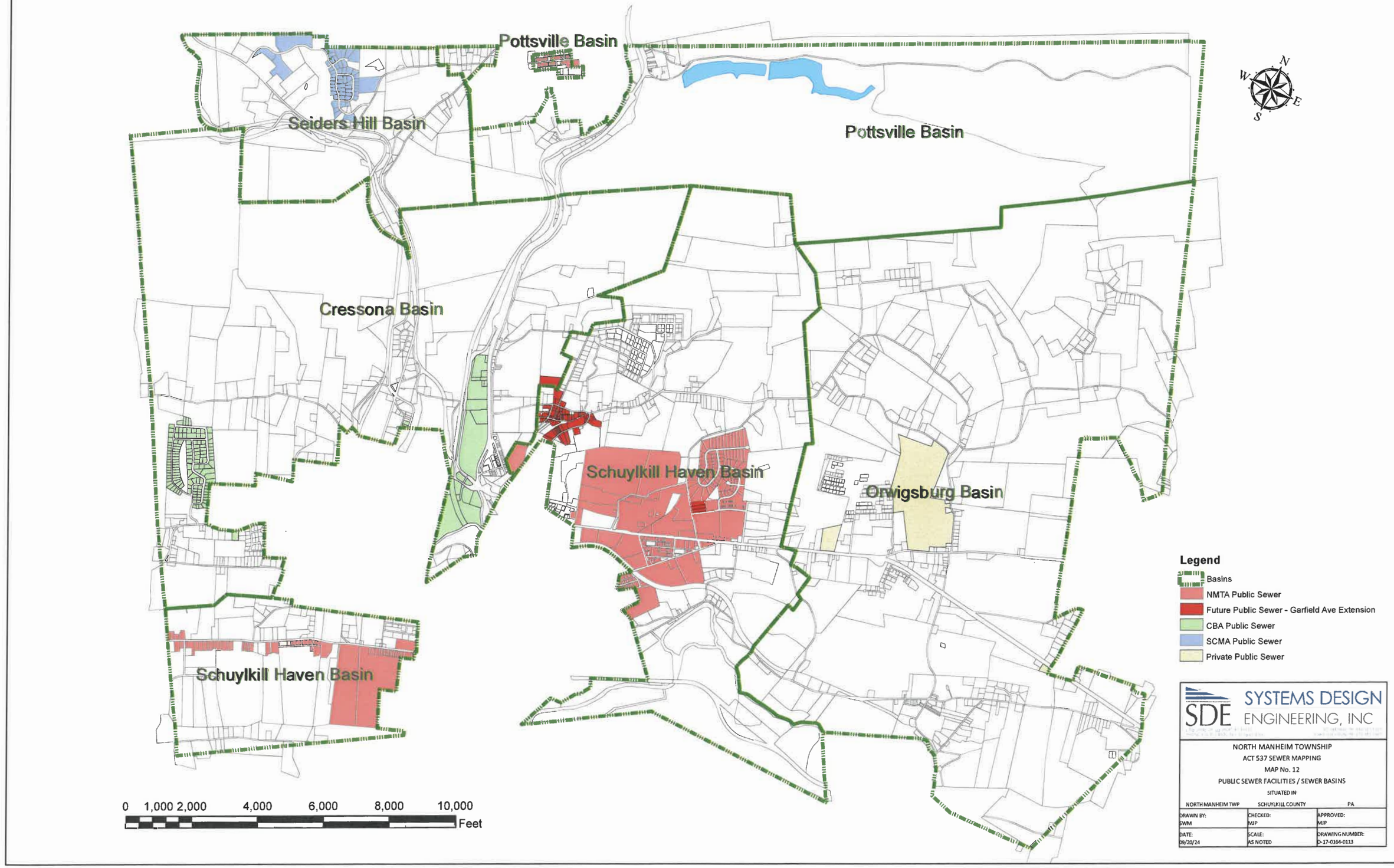
MAP 17B: SEIDERS HILL BASIN - EXTENSION NO 1 (Glenworth Road / SPCA Road)
4.0 PERCENT FOR 20 YEAR TERM

		WITHOUT GRANT FUNDING
Project		
Total Construction Cost	**$**	**1,558,275**
Legal / Administration / Financial (2%)	$	31,200
Engineering (10%)	$	155,800
Inspection (5%)	$	77,900
Contingency (10%)	$	155,800
Total Project Cost	**$**	**1,978,975**
Funding Sources		
Tapping Fee Rate	$	400.00
Equivalent Dwelling Units		23
Township Tapping Fee	$	9,200
Conventional Bank Loan	**$**	**1,969,775**
Debt Service @ 4.00% for first 20 Yrs [1]		
Annual Debt Service	$	144,939
Total Billing Units (EDUs)		23
Monthly Add'l Cost / EDU	$	525.14
Quarterly Add'l Cost / EDU	**$**	**1,575.43**
Annual Add'l Cost / EDU	$	6,301.72
Administration	$	2.00
Treatment Cost per EDU per Month	$	53.33
Additional Monthly Cost for O&M	**$**	**55.33**
Total Monthly Cost	$	580.47
Total Quarterly Cost	**$**	**1,741.42**
Total Annual Cost	$	6,965.68
Median Household Income [2]	$	65,445
Percent of MHI for New Bill		**10.64%**

Notes:

(1) Interest rates and time frame utilized were from Financial S&lutions, Inc.

(2) Median Household Income is from US Census - 2013-2017 American Community 5-Year Estimates.


Pottsville Basin
Seiders Hill Basin
Pottsville Basin
Cressona Basin
Schuylkill Haven Basin
Orwigsburg Basin
Schuylkill Haven Basin
N
W
E
S
0 1,000 2,000 4,000 6,000 8,000 10,000
Feet
Legend
Basins
NMTA Public Sewer
Future Public Sewer - Garfield Ave Extension
CBA Public Sewer
SCMA Public Sewer
Private Public Sewer
SDE SYSTEMS DESIGN ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 12
PUBLIC SEWER FACILITIES / SEWER BASINS
SITUATED IN
NORTH MANHEIM TWP SCHUYLKILL COUNTY PA
DRAWN BY: SWM
CHECKED: MJP
APPROVED: MJP
DATE: 09/20/24
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

Luther Ridge at Seiders Hill

Schuylkilll Conservation District Office

Green Valley Nursing Home

Seiders Hill Development

Jackson Road

State Hwy 901

QUANDEL CORP RD EXT

Twp Hwy 711

Sajer Road

RED HORSE RD

GLENWORTH RD

Glenworth Rd

Twp Hwy 706

Gordon Nagle Rd

Seiders Hill Basin

Crewsville Basin

0 125 250 500 750 1,000 1,250 Feet

Source:

N W E S

Legend

SeidersHill

Verified

- Approximate
- Yes

Seiders Hill Collection Main

SDE SYSTEMS DESIGN ENGINEERING, INC

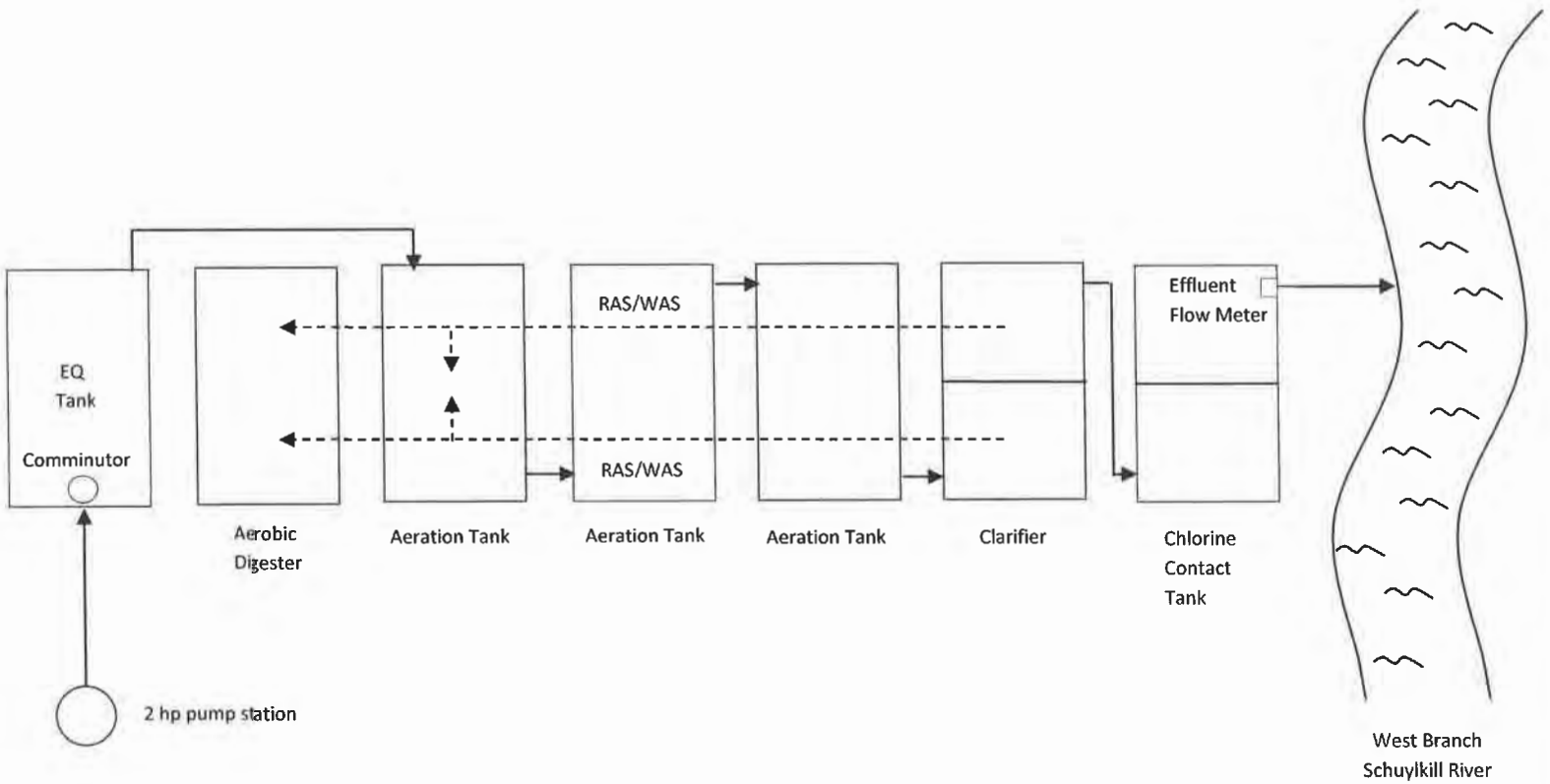
NORTH MANHEIM TOWNSHIP
ACT 537 SEWER MAPPING
MAP No. 13F
SEIDERS HILL BASIN
SITUATED IN

NORTH MANHEIM TWP	SCHUYLKILL COUNTY	PA
DRAWN BY: SWM	CHECKED: MJP	APPROVED: MGP
DATE: 04/01/20	SCALE: as NOTED	DRAWING NUMBER: D-17-0364-0113

N
W
E
S
Jackson Road
Seiders Hill
Sajer Road
RED HORSE RD
GLENWORTH RD
Twp Hwy 711
Cressona Rd
City of Pottsvil
Hillside SPCA
Twp Hwy 696
Twp Hwy 706
State Hwy 901
Glenworth Rd
Gordon Nagle Rd
Seiders Hill WWTP
0 125 250 500 750 1,000
Feet
Legend
Future Manholes
Existing Sewer Forcemains
Type
Future Force Main
Future Gravity
Existing Sewer Manholes
Existing Sewer Mains
North Manheim Parcels
SDE
SYSTEMS DESIGN
ENGINEERING, INC
NORTH MANHEIM TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN
MAP NO. 17B
SEIDERS HILL BASIN - EXTENSION NO. 1
GLENWORTH ROAD / SPCA ROAD
SITUATED IN
NORTH MANHEIM TWP
SCHUYLKILL COUNTY
PA
DRAWN BY: ZBS
CHECKED: MJP
APPROVED: MGP
DATE: 04/01/20
SCALE: AS NOTED
DRAWING NUMBER: D-17-0164-0113

APPENDIX K

EXHIBIT 3 WWTP SCHEMATIC



Seiders Hill Wastewater Treatment Plant

Municipal Wasteload Management

Chapter 94 Report

March 2021

Schuylkill County Municipal Authority

221 South Centre St.

Pottsville, PA 17901

570-622-8240

APPENDIX K

EXHIBIT 4 NPDES PERMIT PA 0063096

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

August 25, 2020

VIA ELECTRONIC MAIL

Patrick Caulfield – pcaulfield@scmawater.com
Schuylkill County Municipal Authority
PO Box 960 221 S Centre Street
Pottsville, PA 17901-0960

Re: Permit Transfer- Sewage
SCMA Seiders Hill WWTP
NPDES Permit No. PA0063096 A-1
Prior Permittee: Seiders Hill Inc.
North Manheim Township, Schuylkill County

Dear Mr. Caulfield:

In accordance with your request received on July 28, 2020, the Department of Environmental Protection (DEP) has transferred the above referenced permit. Please study the permit carefully and direct any questions to this office. The transferred permit has been updated to PADEP's Muni 1/2020 Permit template with Chapter 94 reporting requirements.

The expiration date of the NPDES permit is December 31, 2023. If you intend to continue discharging beyond the expiration date, you must submit an application to renew the permit at least 180 days prior to the expiration date.

Enclosed are Discharge Monitoring Report (DMR) templates and supplemental forms for your use in meeting the monitoring and reporting requirements of the permit. Your facility is registered to use DEP's electronic DMR (eDMR) system (see www.dep.state.pa.us/edmr). DEP expects that the use of eDMR will continue for the facility. Therefore, the paper DMRs and supplemental forms attached to the permit should be used only for backup purposes. Please contact DEP using the contact information listed on the eDMR website to add new personnel or modify existing eDMR account information.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions, please contact Bernard Feist, P.E. at 570.830.3088.

Sincerely,

B R Patel
Bharat Patel, P.E.
Environmental Program Manager
Clean Water Program

Enclosures

cc: Seiders Hill Inc. – ventresca.david@gmail.com

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR PUBLICLY OWNED TREATMENT WORKS (POTWs)

NPDES PERMIT NO: PA0063096
Amendment No. 1

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

Schuylkill County Municipal Authority
PO Box 960 , 221 S Centre Street
Pottsville, PA 17901-0960

is authorized to discharge from a facility known as **SCMA Seiders Hill WWTP**, located in **North Manheim Township, Schuylkill County**, to **West Branch Schuylkill River (CWF)** in Watershed(s) **3-A** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON **September 1, 2020**

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON **December 31, 2023**

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))

3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d))

   In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED December 4, 2018

DATE PERMIT AMENDMENT ISSUED August 25, 2020

ISSUED BY *B R Patel*

Bharat Patel, P.E.
Environmental Program Manager
Northeast Regional Office

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 39' 36.12" , **Longitude** 76° 12' 42.54" , **River Mile Index** _____ , **Stream Code** _____

Receiving Waters: West Branch Schuylkill River (CWF)

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **September 1, 2020** through **December 31, 2023**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60.0	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
Nitrate-Nitrite as N (lbs/year)	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Nitrogen (lbs/year)	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation

Outfall 001 , Continued (from September 1, 2020 through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Kjeldahl Nitrogen (lbs/year)	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Phosphorus (lbs/year)	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS (Continued)

Additional Requirements

1. The permittee may not discharge:

   a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))

   b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))

   c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))

   d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))

2. The monthly average percent removal of BOD_5 or $CBOD_5$ and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))

3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.

4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.

(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The hydraulic design capacity of 0.09 million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.

(2) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 0.09 MGD.

(3) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

Bypass means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

Calendar Week is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

Clean Water Act means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report (DMR) means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the n^{th} root of their product.

Grab Sample means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

Hauled-In Wastes means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Indirect Discharger means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Industrial User means a source of Indirect Discharge. (40 CFR 403.3)

Instantaneous Maximum Effluent Limitation means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

Municipality means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

Municipal Waste means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

Publicly Owned Treatment Works (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

Residual Waste means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

Stormwater Associated With Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

Weekly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)

2. Records Retention (40 CFR 122.41(j)(2))

   Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   a. The exact place, date and time of sampling or measurements.
   b. The person(s) who performed the sampling or measurements.
   c. The date(s) the analyses were performed.
   d. The person(s) who performed the analyses.
   e. The analytical techniques or methods used; and the associated detection level.
   f. The results of such analyses.

4. Test Procedures

   a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.

   b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))

   c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))

b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))

2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:

   a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.

   b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.
   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

   Notice is required when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

   d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

   a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

      New pollutants are defined as parameters that meet one or more of the following criteria:

(i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW (as defined at 40 CFR 403.3), or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from conventional oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

(1) The dates that residual wastes were received.

(2) The volume (gallons) of wastes received.

(3) The license plate number of the vehicle transporting the waste to the treatment facility.

(4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

(5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

(ii) In accordance with 40 CFR Part 435, Subpart C, the permittee shall not accept wastewater pollutants associated with production, field exploration, drilling, well completion, or well treatment for unconventional oil and gas extraction (including, but not limited to, drilling muds, drill cuttings, produced sand, produced water). Unconventional oil and gas means crude oil and natural gas produced by a well drilled into a shale and/or tight formation (including, but not limited to, shale gas, shale oil, tight gas, and tight oil). This prohibition does not apply to wastewater generated from stripper wells as defined at 40 CFR Part 435, Subpart F.

(iii) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD_5 concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD_5 characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

   a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).

      (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

      (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.

      (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

   b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:

      (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

         (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

         (2) Any upset which exceeds any effluent limitation in the permit; and

         (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.

      (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

      (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

   The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:

   a. The requirements identified in 25 Pa. Code § 94.12.

   b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.

   c. A "Solids Management Inventory" if specified in Part C of this permit.

   d. The total volume of hauled-in residual and municipal wastes received during the year, by source.

   e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)

2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.

3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).

2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

   a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))

c. The permittee submitted the necessary notice required in paragraph G.4 below. (40 CFR 122.41(m)(4)(i)(C))

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in paragraph G.2 above. (40 CFR 122.41(m)(4)(ii))

4. Notice

a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))

b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

I. Termination of Permit Coverage (25 Pa. Code § 92a.74 and 40 CFR 122.64)

1. Notice of Termination (NOT) – If the permittee plans to cease operations or will otherwise no longer require coverage under this permit, the permittee shall submit DEP's NPDES Notice of Termination (NOT) for Permits Issued Under Chapter 92a (3800-BCW-0410), signed in accordance with Part A III.B.6 of this permit, at least 30 days prior to cessation of operations or the date by which coverage is no longer required.

2. Where the permittee plans to cease operations, NOTs must be accompanied with an operation closure plan that identifies how tankage and equipment will be decommissioned and how pollutants will be managed.

3. The permittee shall submit the NOT to the DEP regional office with jurisdiction over the county in which the operation is located.

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or

- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))

2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))

3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))

4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))

   b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))

   c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))

   d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)

3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

IV. ANNUAL FEE

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code § 92a.62)

Small Flow Treatment Facility (SRSTP and SFTF)	$0
Minor Sewage Facility < 0.05 MGD (million gallons per day)	$250
Minor Sewage Facility ≥ 0.05 and < 1 MGD	$500
Minor Sewage Facility with CSO (Combined Sewer Overflow)	$750
Major Sewage Facility ≥ 1 and < 5 MGD	$1,250
Major Sewage Facility ≥ 5 MGD	$2,500
Major Sewage Facility with CSO	$5,000

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Minor Sewage Facility >=0.05 and <1 MGD**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Clean Water
Re: Chapter 92a Annual Fee
P.O. Box 8466
Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.

II. SOLIDS MANAGEMENT

A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.

B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) and "Supplemental Report – Influent & Process Control" (Form No. 3800-FM-BCW0436), as attachments to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Schuylkill County Municipal Authority
ADDRESS: PO Box 960
Pottsville, PA 17901-0960
FACILITY: Scma Seiders Hill WWTP
LOCATION: North Manheim Township
Schuylkill County
WATERSHED: 3-A

PA0063096	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Annually
DMR Effective From: September 1, 2020
DMR Effective To: Permit Expiration Date
Permit Expires:
Permit Application Due:

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Nitrate-Nitrite as N	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Annl Avg	XXX	lbs/year	XXX	Report Annl Avg	XXX	mg/L		1/year	8-Hr Composite
Total Nitrogen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Annl Avg	XXX	lbs/year	XXX	Report Annl Avg	XXX	mg/L		1/year	Calculation
Total Kjeldahl Nitrogen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Annl Avg	XXX	lbs/year	XXX	Report Annl Avg	XXX	mg/L		1/year	8-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Annl Avg	XXX	lbs/year	XXX	Report Annl Avg	XXX	mg/L		1/year	8-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*							

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PERMITTEE NAME/ADDRESS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

NAME Schuylkill County Municipal Authority
ADDRESS PO Box 960
Pottsville, PA 17901-0960
FACILITY Scma Seiders Hill WWTP
LOCATION North Manheim Township
Schuylkill County
WATERSHED 3-A

PA0063096	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly
DMR Effective From: September 1, 2020
DMR Effective To: Permit Expiration Date
Permit Expires:
Permit Application Due:
___ Check Here if No Discharge
NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	MGD	XXX	XXX	XXX	XXX		1/week	Measured
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.0 Inst Min	XXX	9.0 IMAX	S.U.		1/day	Grab
Dissolved Oxygen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	5.0 Daily Min	XXX	XXX	mg/L		1/day	Grab
Total Residual Chlorine (TRC)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	0.5 Avg Mo	1.6 IMAX	mg/L		1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	25.0 Avg Mo	XXX	mg/L		2/month	8-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	30.0 Avg Mo	XXX	mg/L		2/month	8-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Schuylkill County Municipal Authority
ADDRESS: PO Box 960
Pottsville, PA 17901-0960
FACILITY: Scma Seiders Hill WWTP
LOCATION: North Manheim Township
Schuylkill County
WATERSHED: 3-A

PA0063096	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly
DMR Effective From: September 1, 2020
DMR Effective To: Permit Expiration Date
Permit Expires:
Permit Application Due:

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Fecal Coliform Oct 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	2000 Geo Mean	10000 IMAX	No./100 ml		2/month	Grab
Fecal Coliform May 1 - Sep 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	1000 IMAX	No./100 ml		2/month	Grab
Ammonia-Nitrogen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	25.0 Avg Mo	XXX	mg/L		2/month	8-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. You should make copies of the DMRs for your ongoing use, unless you elect to participate in the Department of Environmental Protection's (DEP's) electronic DMR (eDMR) program (see www.dep.pa.gov/edmr).

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly semi-annually and annually.
- Your reports must be received by DEP on the 28th day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- If you receive DMRs in the mail from EPA, please discontinue use of DMR Form No. 3800-FM-BCW0462 and begin using EPA's DMRs.
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. If you identify any errors on a DMR issued by EPA, please contact DEP's Central Office at 717-787-6744. **DO NOT make changes to DMRs issued to you**.
- You may use computer-generated replicas of Form No. 3800-FM-CW0462 or of EPA's DMR if you receive prior approval from DEP and EPA. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.
5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

No Discharge or No Data Available

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

A Use if you are exempted from monitoring the parameter because of a General Permit condition.

E Use if all samples or results are not available for the reporting period due to equipment failure or because sample collection was overlooked or samples could not be collected for the parameter.

GG Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used).

FF Other: use if there is any reason for the absence of data that is not covered by those above.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

Calculations

The following explains how to calculate statistical values that are commonly required by permits:

Monthly Average – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

Weekly Average – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

Maximum Daily ("Daily Max") – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

Instantaneous Maximum ("IMAX") – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Instantaneous Minimum ("Minimum") – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Total Monthly Load (lbs) – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

Geometric Mean – Report the average of a set of *n* sample results given by the *n*th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1{,}200{,}000{,}000} = (1{,}200{,}000{,}000)^{1/5} = \mathbf{65}$$

Non-Detect Data

Conventional and Toxic Parameters

For calculating average values of data sets in which there are some "detections" (results at or above the laboratory reporting limit) and some "non-detect" data (results reported below the laboratory reporting limit), use the reporting limit for non-detect data. In other words, ignore the less than (<) symbol for statistical calculations and include the < symbol with the statistical result if there is at least one non-detect result in the data set. For example, four samples were analyzed with the following results: < 1.0, 2.0, < 1.0, and 1.0. The average statistical result is < 1.3.

Where the permit includes an effluent limitation for a parameter that is less than the most sensitive detection limit available, and the laboratory reports a value at or below the lowest level specified by the permit, you may use zero (0) in the calculation in lieu of the reporting limit, if the parameter is identified in 25 Pa. Code Chapter 16, Appendix A, Tables 2A and 2B. In general, parameters with limitations that are less than the most sensitive detection limit will be identified in Part C of the permit, if applicable.

Bacteria Parameters

Report all "non-detect" (e.g., < 2) and "too numerous to count" (TNTC) (e.g., > 2,000) results on DMR supplemental forms as reported by the laboratory. Do not report "TNTC" on supplemental forms, but instead report a value qualified with the">" symbol. Where a data set includes one or more "non-detect" and/or TNTC results, calculate the geometric mean by ignoring qualifying symbols, but report the value with the symbol. If a data set includes both ">" and "<" qualifiers, the ">" qualifier takes precedence for reporting. For all "non-detect" values, specify in the Comments section of the DMR the maximum volume filtered at the laboratory.

Example 1 – For results are determined, < 2, 10, 20, and 30. The geometric mean should be reported as $< (2 \bullet 10 \bullet 20 \bullet 30)^{0.25} = < 10$. Specify the maximum volume filtered for the < 2 result in the DMR Comments.

Example 2 – Three results are determined, < 2, 1,000, and > 2,000. The geometric mean should be reported as $> (2 \bullet 1{,}000 \bullet 2{,}000^{0.333} = > 158$.

Rounding and Precision

Statistical values reported on the DMR should be rounded to the same number of decimal places as the limit for the parameter as set forth in the permit. If the permit does not contain a limit but requests monitoring only, statistical values for concentration results should be rounded to the maximum number of decimal places in the data set as reported by the laboratory or the instrument used for analysis. If mass loads must be reported and there is no limit, round statistical values to the nearest whole number, unless the calculated number is less than one, in which case the value should be rounded to one significant figure (e.g., 0.1, 0.05, etc.). If the number you are rounding is followed by 5, 6, 7, 8, or 9, round the number up, otherwise round down.

The documents "Discharge Monitoring Reports Overview and Summary" (3800-BK-DEP3047) and "Management of Non-Detect Results for Discharge Monitoring Reports" (3800-FS-DEP4262) contain more information and are incorporated by reference. These documents are available on DEP's website.

3800-FM-BPNPSM0435 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
DAILY EFFLUENT MONITORING

Facility Name: Scma Seiders Hill WWTP
Municipality: North Manheim Township County: Schuylkill
Watershed: 3-A
Laboratories:

Month: Year:
NPDES Permit No.: PA0063096 Outfall No.: 001
Renewal application due **180 days** prior to expiration
This permit will expire on December 31, 2023

	Effluent Parameters																	
	Flow		pH		DO		TRC		CBOD5		TSS		Fecal Coliform		Nitrate-Nitrite		Total Nitrogen	
Day	Q	MGD	Q	S.U.	Q	mg/L	Q	mg/L	Q	mg/L	Q	mg/L	Q	No./100 ml	Q	mg/L	Q	mg/L
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

Facility Name: Scma Seiders Hill WWTP
Municipality: North Manheim Township County: Schuylkill
Watershed: 3-A
Laboratories:

Month: Year:
NPDES Permit No.: PA0063096 Outfall No.: 001
Renewal application due **180 days** prior to expiration
This permit will expire on December 31, 2023

	Effluent Parameters																	
Day	Ammonia		TKN		Total Phosphorus													
	Q	mg/L	Q	mg/L	Q	mg/L	Q		Q		Q		Q		Q		Q	
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0436 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT – INFLUENT & PROCESS CONTROL

Facility Name: Scma Seiders Hill WWTP
Municipality: North Manheim Township County: Schuylkill
Watershed: 3-A

Month: _____ Year: _____
NPDES Permit No.: PA0063096 T-1
Renewal application due **180 days** prior to expiration

Day	Influent					Process Control				
	Flow (MGD)	BOD5 (mg/l)	BOD5 (lbs)	TSS (mg/l)	TSS (lbs)	Aeration MLSS (mg/l)	Aeration DO (mg/l)	Sludge Wasted (gallons)		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg										
Max										

This permit will expire on

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0438 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name: Scma Seiders Hill WWTP
Municipality: North Manheim Township County: Schuylkill
Watershed: 3-A

Month: _____ Year: _____
NPDES Permit No.: PA0063096 T-1
Renewal application due **180 days** prior to expiration
This permit will expire on December 31, 2023

SEWAGE SLUDGE/BIOSOLIDS PRODUCTION INFORMATION (Identify each off-site removal event and incineration event)

☐ Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge/Biosolids Hauled Off-site			Dewatered Sewage Sludge/Biosolids Hauled Off-site			Sewage Sludge/Biosolids Dewatered and Incinerated On-site		
	Gallons	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons
		TOTAL:			TOTAL:			TOTAL:	

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

Site Name				
Municipality				
County				
DEP Permit No.				
Type of Material*				
Dry Tons Applied/Disposed				
Type of Disposal/Use*				
Hauler Name				

*See Instructions for explanation

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0440 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). **Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.** If you are reporting other non-compliance events, and the reporting deadline does not coincide with your submission of the DMR, it should be submitted separately to the Department by the reporting deadline set forth in the permit. See instructions for more information.

Facility Name: Scma Seiders Hill WWTP Month: _____ Year: _____

Municipality: North Manheim Township County: Schuylkill Permit No.: PA0063096 T-1

☐ **Violations of Permit Effluent Limitations***

Date	Parameter	Permit Limit	Units	Statistical Code	Result	Units	Cause of Violation	Corrective Action Taken

☐ **Sanitary Sewer Overflows and Other Unauthorized Discharges***

Event Date	Substance Discharged	Location	Volume (gals)	Duration (hrs)	Receiving Waters	Impact on Waters	Cause of Discharge	Date DEP Notified

☐ **Other Permit Violations***

☐ Sample collection less frequent than required Explain _____
☐ Sample type not in compliance with permit Explain _____
☐ Violation of permit schedule Explain _____
☐ Other Explain _____
☐ Other Explain _____

*** If the space provided is not sufficient to record all information, please attach additional sheets.**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0189 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL LABORATORY ACCREDITATION FORM[1]

Permittee Name: Schuylkill County Municipal Authority

Address: Po Box 960
Pottsville,PA 17901-0960

PERMIT NUMBER	MONITORING PERIOD Year/Month/Day						
PA0063096 T-1				TO			

PARAMETER	ANALYSIS METHOD	LAB NAME	LAB ID NUMBER[2]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibly of fine and imprisonment for knowing violations.

Name/Title Principal Executive Officer **Phone:** _____ **Signature of Principal Executive Officer or Authorized Agent**

_____ **Date:** _____ _____

[1] Submit this form with the first Discharge Monitoring Report (DMR) or Annual Report, where sample results are submitted to the Department for compliance purposes. You do not need to send this form to the Department again UNLESS there has been a change to the lab(s), parameter(s) or method(s) of analysis.

[2] For parameter(s) covered under accreditation-by-rule, submit the lab's registration number in lieu of an accreditation number.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

DAILY EFFLUENT MONITORING REPORT

Use this form to report daily monitoring results for the parameters that must be monitored in effluent for compliance with the permit. Results for influent parameters are normally reported on Form 3800-FM-BCW0436.

1. Enter Facility Name, Municipality, County, Watershed No., Laboratories, Month, Year, NPDES Permit No., Outfall No., and Permit Expiration Date (it is noted that this information may be pre-populated if you have received this form with your permit). For Laboratories, list the names of all laboratories where samples were analyzed during the month, including on-site analysis.

2. In the column headers, below "Effluent Parameters," enter the names of parameters in the permit. Since limited space is provided, abbreviation may be necessary. If there are more parameters for an outfall than columns provided on the form, attach an additional sheet.

3. Below parameter names, and to the right of "Q" (Qualifier) column headers, enter the units associated each parameter (it is noted that this information may be pre-populated if you have received this form with your permit).

4. Enter monitoring results for parameters in the rows corresponding to the day of the month in which samples were collected. Enter results exactly as reported by the laboratory, or if measured with on-site equipment, to the level of precision recommended by the equipment manufacturer. Enter data qualifiers such as "<," ">," "J," and others in the "Q" column.

5. Calculate and report average values at the bottom of the table in accordance with the DMR Instructions (3800-FM-BCW0463) and DEP guidance (3800-BK-DEP3047). Note – for bacteria, calculate and report the geometric mean value.

6. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

INFLUENT AND PROCESS CONTROL REPORT

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. For **Influent**, enter daily average Influent Flow (MGD) (if an influent flow meter is in use), daily influent BOD_5 or $CBOD_5$ concentrations (mg/l) and loads (lbs), and daily influent TSS concentrations (mg/l) and loads (lbs). If an influent flow meter is not in use, you may use results from an effluent flow meter.

3. For **Process Control**, enter daily average Mixed Liquor Suspended Solids (MLSS) (mg/l) and daily average Aeration Dissolved Oxygen (DO) for aerobic biological treatment systems, and total daily Sludge Wasted (removed from biological treatment), in gallons, for all treatment system types. If a parameter does not apply to your facility, leave the column blank. Information for other parameters such as Return Activated Sludge (RAS) Rate, Recirculation Rate (for fixed media treatment systems), Sludge Blanket Thickness, Sludge Volume Index, and others may be requested by the DEP office that issued the permit.

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

BIOSOLIDS PRODUCTION AND DISPOSAL FORM

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

Biosolids Production Information

2. For each off-site removal event for liquid sewage sludge or biosolids and for dewatered sewage sludge or biosolids, and for each event where dewatered sewage sludge or biosolids are incinerated on-site, list the date of the event, identify the gallons (liquid) or tons (dewatered) removed or incinerated and the percent solids (e.g., 10%, 20%, etc.) Report only sewage sludge or biosolids that have been removed from the plant digesters and other solids which have been **permanently** removed from the treatment process. Do **not** include sewage sludge or biosolids from other facilities that are processed at your facility. (If there were no off-site removal events during the month, check the box above the table).

   Calculate dry tons for liquid sewage sludge or biosolids by multiplying the volume (gallons) by the percent solids and by a conversion factor of 0.0000417. For example, if 2,500 gallons of liquid biosolids is removed, and the percent solids is 3.0%, dry tons is calculated as:

   2,500 gallons x 3.0% x 0.0000417 = 0.31 dry tons

   Calculate dry tons for dewatered sewage sludge or biosolids by multiplying the tons dewatered by the percent solids and by a conversion factor of 0.01. For example, if 5 tons of dewatered biosolids is removed, and the percent solids is 50%, dry tons is calculated as:

   5 tons x 50% x 0.01 = 2.5 dry tons

   The **% Solids** of liquid or dewatered sewage sludge or biosolids must be determined periodically through laboratory testing. Do not estimate or guess this value. An acceptable test method is method 2540B in *Standard Methods for the Examination of Water and Wastewater*, 18th edition, where samples are dried at 103-105°C. Other references such as ASTM may have equivalent tests which are also acceptable.

Biosolids and Incinerator Ash Disposal and Beneficial Use Information

3. Report sewage sludge, biosolids, and ash disposal and beneficial use information by disposal/application site. There are columns for four possible sites per month - if more sites are needed, attach additional pages. For each Site Name, listed at the top of the column, enter the Municipality and County of the site, the DEP Permit No. (i.e., Biosolids permit number for land application, landfill waste management permit number, etc.), Type of Material (sewage sludge, biosolids, or incinerator ash), Dry Tons Applied/Disposed at the site for the month, Type of Disposal/Use (e.g., reed beds, agricultural utilization, composting, landfill, other treatment plant, etc.) and the name of the hauler (company or individual name).

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). If you are reporting other non-compliance events, and the deadline for a written report (e.g., 5 days) does not coincide with your submission of the DMR, this form should be submitted separately to the Department by the reporting deadline set forth in the permit.

If you are unsure of whether an incident constitutes non-compliance that may endanger health or the environment, it is recommended that you notify the Department verbally as soon as possible after you become aware of the incident. Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

Instructions:

1. Enter the name of the facility, the municipality and county where it is located, the month and year when violations occurred, and the NPDES or WQM permit number for the facility.

2. If there were violations of permit effluent limitations during the month, check the box next to "Violations of Permit Effluent Limitations." (Note – if using the electronic version of this form, check the boxes first, and then select Tools – Unprotect Document to enter additional information). Enter the date of the violation (if a violation of a minimum or maximum limit, the date of sample collection, or if a violation of an average limit, the end of the monitoring period), the parameter name, the permit limit and units, the statistical code (e.g., "MIN", "MAX", "MO AVG", etc.), the measured result and units, the cause of the violation and the corrective action taken. **If there are more than two violations during the monitoring period and/or if the space provided is insufficient to explain the cause or corrective action, please attach additional pages.**

3. If there are Sanitary Sewer Overflow (SSO) discharges or other unauthorized discharges from the facility (e.g., spills, leaks, etc.) that enter or have the potential to enter waters of the Commonwealth, including groundwater, notify DEP by phone as soon as possible, and document the discharge on this form by checking the box next to "Sanitary Sewer Overflows and Other Unauthorized Discharges." Record the event (discharge) date, the substance discharged (e.g., sewage, on-site chemicals, etc.), the location where the discharge occurred (e.g., manhole number, pump station name, equipment description, etc.), the volume discharged (gallons), the approximate duration of the discharge (hours), the receiving waters (name of stream or groundwater), the impact on the receiving waters, if observed (e.g., solids deposition, foam, fish kill, etc.), the cause of the discharge, and the date on which the Department was verbally notified. **If there are more than two discharge events during the monitoring period and/or if the space provided is insufficient to explain the discharge, please attach additional pages.**

4. If there are other violations of the permit, check the box next to "Other Permit Violations," and check the appropriate box that describes the violation type. If not identified on the form, check the box next to "Other" and provide a written explanation. **If the space provided is insufficient to explain the violation, please attach additional pages.**

5. Type your name and title and sign and date the form after reading the certification statement.

If you have questions about completing this form, contact the Clean Water Program Operations Section of the Department in your region:

Southeast Region – (484) 250-5970
Northeast Region – (570) 826-2553
Southcentral Region – (717) 705-4707
Northcentral Region – (570) 327-0532
Southwest Region – (412) 442-4060
Northwest Region – (814) 332-6942

Supplemental Form Inventory

The following supplemental forms (indicated in the check box column) are attached to this permit and must be completed and submitted to DEP in accordance with the permit and the supplemental form instructions. If the eDMR system is used to submit DMR reports, the spreadsheet versions of these supplemental forms, where applicable, should be used and attached to the eDMR submissions. A link to DEP's supplemental form website is available when logging into the eDMR system.

Check Box	Supplemental Form Name and No.
☒	Daily Effluent Monitoring (3800-FM-BCW0435)
☒	Influent & Process Control (3800-FM-BCW0436)
☐	Hauled in Municipal Wastes (3800-FM-BCW0437)
☒	Sewage Sludge/Biosolids Production and Disposal (3800-FM-BCW0438)
☐	Chemical Additives Usage (3800-FM-BCW0439)
☒	Non-Compliance Reporting Form (3800-FM-BCW0440)
☐	CSO Monthly Summary Report (3800-FM-BCW0441)
☐	CSO Detailed Report (3800-FM-BCW0442)
☐	Groundwater Monitoring Data Report (3800-FM-BCW0443)
☐	TMDL Annual Load Summary (3800-FM-BCW0448)
☐	Land Application Systems (3800-FM-BCW0449)
☐	Hauled in Residual Wastes (3800-FM-BCW0450)
☐	Surface Water Monitoring Data Report (3800-FM-BCW0461)
☒	Lab Accreditation Form (3800-FM-BCW0189)
☐	Whole Effluent Toxicity Test Summary Report (3800-FM-BCW0485)
☐	Cooling Water Intake Monitoring (3800-FM-BCW0010)
☐	Storm Water Annual Report
☐	Other:

APPENDIX K

EXHIBIT 5 2023 ANNUAL WASTELOAD REPORT

2023

MUNICIPAL WASTELOAD MANAGEMENT REPORT

FOR THE

SEIDERS HILL WASTEWATER TREATMENT PLANT

PREPARED BY THE

SCHUYLKILL COUNTY MUNICIPAL AUTHORITY
221 S. CENTRE STREET
POTTSVILLE, PA 17901

March 2024

TABLE OF CONTENTS

		PAGE NO.
	GENERAL INFORMATION	i
	SIGNATURE SHEET	ii
1.0	DESCRIPTION OF WASTEWATER SYSTEM	1
2.0	HYDRAULIC LOADING PROJECTION	2
3.0	ORGANIC LOADING PROJECTION	2
4.0	INDUSTRIAL WASTE REPORT	2
5.0	SEWER LINE EXTENSIONS	2
6.0	SEWER SYSTEM MONITORING, MAINTENANCE AND REPAIRS	3
7.0.	CONDITION OF SEWER SYSTEM	3
8.0	PUMP STATIONS	3
9.0	PROPOSED PROJECTS	3
10.0	SLUDGE DISPOSAL	3

APPENDICES

APPENDIX A GRAPH #1 HYDRAULIC LOADING PROJECTIONS

TABLE #1 HYDRAULIC LOADING DATA

TABLE #2 PROJECTED HYDRAULIC LOADINGS

GRAPH #2 ORGANIC LOADING PROJECTIONS

TABLE #3 ORGANIC LOADING DATA

TABLE #4 PROJECTED ORGANIC LOADING

APPENDIX B LOCATION MAP

TREATMENT PLANT SCHEMATIC

CALIBRATION REPORT

SERVICE AREA MAP

APPENDIX C SEWAGE SLUDGE MANAGEMENT INVENTORY

APPENDIX D PADEP CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT FORM

GENERAL INFORMATION

NAME:	SCHUYLKILL COUNTY MUNICIPAL AUTHORITY SEIDERS HILL WWTP 221 SOUTH CENTRE STREET POTTSVILLE, PA 17901 570-622-8240
PLANT LOCATION:	505 GORDON NAGLE TRAIL POTTSVILLE, PA 17901 NORTH MANHEIM TOWNSHIP, SCHUYLKILL COUNTY LATITUDE 40°39'36.5472" LONGITUDE 76°12'42.156"
PERMIT NUMBERS:	NPDES PA 0063096 WQM PERMIT 5493401 (NORTH MANHEIM Twp.)
RECEIVING STREAM:	WEST BRANCH SCHUYLKILL RIVER (3-A WATERSHED)
TYPE OF PLANT:	Extended Aeration Plant
DAILY DESIGN FLOW:	0.030 MGD
PERMITTED FLOW:	0.090 MGD
DESIGN ORGANIC LOADING:	183.9 lbs. BOD_5 /DAY
RESPONSIBLE OFFICIALS:	SCHUYLKILL COUNTY MUNICIPAL AUTHORITY PATRICK M. CAULFIELD, EXECUTIVE DIRECTOR AMY S. BATDORF, ASSISTANT DIRECTOR

SIGNATURES

Prepared and Submitted By:

Troy Miller

Troy K. Miller
Environmental Manager

Amy S. Batdorf

Amy S. Batdorf
Assistant Director

1.0 DESCRIPTION OF WASTEWATER SYSTEM

The Schuylkill County Municipal Authority (SCMA) Seiders Hill Wastewater Treatment Plant (WWTP) serves the commercial and residential properties located in the Seiders Hill Development in North Manheim Township, Schuylkill County, Pennsylvania. Currently, the system serves a total of 123 equivalent dwelling units (EDU's). The wastewater system and associated property was acquired from the Township of North Manheim by Seiders Hill Inc. in 1993. Upon acquisition, the sewer collection system was constructed in phases per agreement with North Manheim Township and in accordance with the Township's plans and specifications.

Sewage from the Seiders Hill Development is treated in a treatment plant located along the West branch of the Schuylkill River consisting of a precast concrete aerobic digestion package sewage treatment plant with a current design capacity of 30,000 gallons per day (GPD). Originally, Seiders Hill Inc. elected to construct the treatment plant in three (3) 30,000 GPD phases with the ultimate planned capacity of 90,000 GPD.

The plant is an extended air facility consisting of a single train system with a 30,000-gallon aeration tank. The plant is permitted for 90,000 gallons average daily flow by PA DEP NPDES Permit PA0063096, but the permitted capacity is for full build-out of the plant. Although the plant is permitted for 90,000 gallons of flow per day, the design capacity of the plant is only 30,000 gallons per day because only a single train of the system has been constructed to date. Current flows are in the range of 13,000 to 14,000 gallons per day and the plant is considered to be under loaded. Ideally, the plant should have flows at 18,000 to 21,000 gallons per day to work efficiently. Thus, it was determined that building of additional capacity as originally planned when the plant is under loaded would be counterproductive and potentially detrimental to plant operations, so no additional capacity was added to the plant.

The wastewater treatment process is comprised of sewage screening, equalization, aeration, clarification, aerobic digestion, and disinfection. The Seiders Hill WWTP consists of one equalization tank with dimensions of 16'4" x 8'4" x 12'. Influent flow now passes through new screening equipment that consists of the Duperon-Dual Auger System, wipes machine, ½-hp motor, VFD drive, discharge chute, 304 SS construction, and freeze protection kit. The equipment was purchased through the CoStars program from Kappe Associates, Inc. who also conducted the on-site installation. Following equalization, flow is treated through a series of three aeration tanks with dimensions of 16'4" x 8'4" x 12' deep. Sludge is pumped from the clarifier to the aerobic digesters while clarified effluent is chlorinated using a flow paced liquid sodium hypochlorite feed and then dechlorinated using sodium bisulfite tablets. Effluent from the clarifier is aerated and chlorinated before passing through an effluent flow meter and ultimately discharged to the West Branch of the Schuylkill River, a tributary to the Delaware River.

The collection system conveys flow from the Seiders Hill Development to the treatment plant and contains approximately 9,000 linear feet of 8-inch diameter gravity sewers and 55 manholes. There are also approximately 865 linear feet of pressure sewers with a diameter of 2 inches, and 1 Authority owned and operated pumping station. The collection system piping material is PVC.

On July 1, 2020, the Schuylkill County Municipal Authority acquired the Seiders Hill System and serves as the current owner and operator of the entire collection system, pumping station and treatment facility. Per the acquisition agreement, SCMA committed to complete any upgrades, improvements or changes to the wastewater treatment plant and facilities to provide for the hookup of the remaining Seiders Hill residential lots identified as Phase 3 of the Seiders Hill development.

In 2019, Senior Health Care Solutions began construction of the Green Valley Nursing Facility in the Seiders Hill Development. The 48-bed facility went online in 2020 and was assigned 13 EDUs.

2.0 HYDRAULIC LOADING PROJECTION

The average monthly flow for 2023 was 0.015 MGD. This is below the permitted capacity of 0.090 MGD. The projected hydraulic loading for the next five (5) years is not expected to exceed 0.019 MGD. The hydraulic loading data presented herein is in accordance with the Pennsylvania Department of Environmental Protection (PADEP) recognized methods. Projected hydraulic flows are based on a constant in population, as the sub-division is fully built. Therefore, the projections include a minimal growth of 10 EDUs per year. The projected data indicates that the plant will not be hydraulically overloaded within the next five (5) years.

3.0 ORGANIC LOADING PROJECTION

The average monthly organic loading for the plant during 2023 was 21 lbs/day. This is well below the permitted capacity of 183.9 lbs/day. The projected organic loading for the next five (5) years is not expected to exceed 48 lbs/day. Organic loading projections are based on the hydraulic projections of 0.0025 MGD per year flow increase and a BOD concentration of 200 mg/l (common for domestic sewage). This results in an organic loading increase of 3 lbs/day. Based upon this evaluation, the organic loading will remain well within the permitted level and the plant will not be organically overloaded within the next five (5) years. After transferring the NPDES Permit, Chapter 94 reporting was added which was not a requirement under the previous permit. The addition of Chapter 94 reporting required SCMA to begin BOD5 sampling which previously was not done hence, there are limited results before August 2020.

4.0 INDUSTRIAL WASTE REPORT

No industrial waste was generated and conveyed to the Seiders Hill Wastewater Treatment Plant in 2023.

5.0 SEWER LINE EXTENSIONS

There were no proposed sewer extensions completed or submitted for planning approval in 2023.

6.0 SEWER SYSTEM MONITORING, MAINTENANCE, REPAIR AND REHABILITATION

The Schuylkill County Municipal Authority is responsible for the repair and preventative maintenance of the Seiders Hill sewer system. The plant operators and maintenance personnel routinely monitor the treatment plant and pump stations.

The following maintenance items were completed at the plant in 2023:

- Fine screen drive end replaced
- Alarm dialers at plant had their backup batteries replaced

The following maintenance items were completed in the collection system in 2023:

- Pump #1 replace at pump station
- Cleaned pump station
- Pump station had dialer backup batteries replaced

The generator was serviced by Winter Engines in October 2023. The flow meters are calibrated annually by Moyer Instruments, Inc. Copies of the calibration certificates dated February 8, 2023 are included in the Appendix B.

7.0 CONDITION OF SEWER SYSTEM

The collection system is in good condition.

8.0 PUMP STATIONS

There is one submersible pump station in the collection system. The pump station consists of a wet well with dual 2-HP Barnes OGP-L submersible pumps, valve chamber, auto-dialer, and security fencing. The station is capable of accepting emergency power from a portable generator.

It is summarized in the following table:

Pump Station	Location Data	Rated Capacity (MGD)	Present Flow (MGD)
Seiders Hill	614 Gordon Nagle Trail	0.04	N/A

Flow meters are not provided at the pump station. Flows are only recorded at the treatment plant.

9.0 PROPOSED PROJECTS

There are no proposed projects for 2024.

10.0 SLUDGE DISPOSAL

Wastewater sludge generated by the treatment process is removed and disposed of in the form of liquid sludge. In 2023, there was a total of 30,318 gallons pumped out for disposal. All sludge was disposed at Schuylkill County Municipal Authority Deer Lake Wastewater Treatment Plant.

Appendix A

Graph #1
Hydraulic Loading Projections

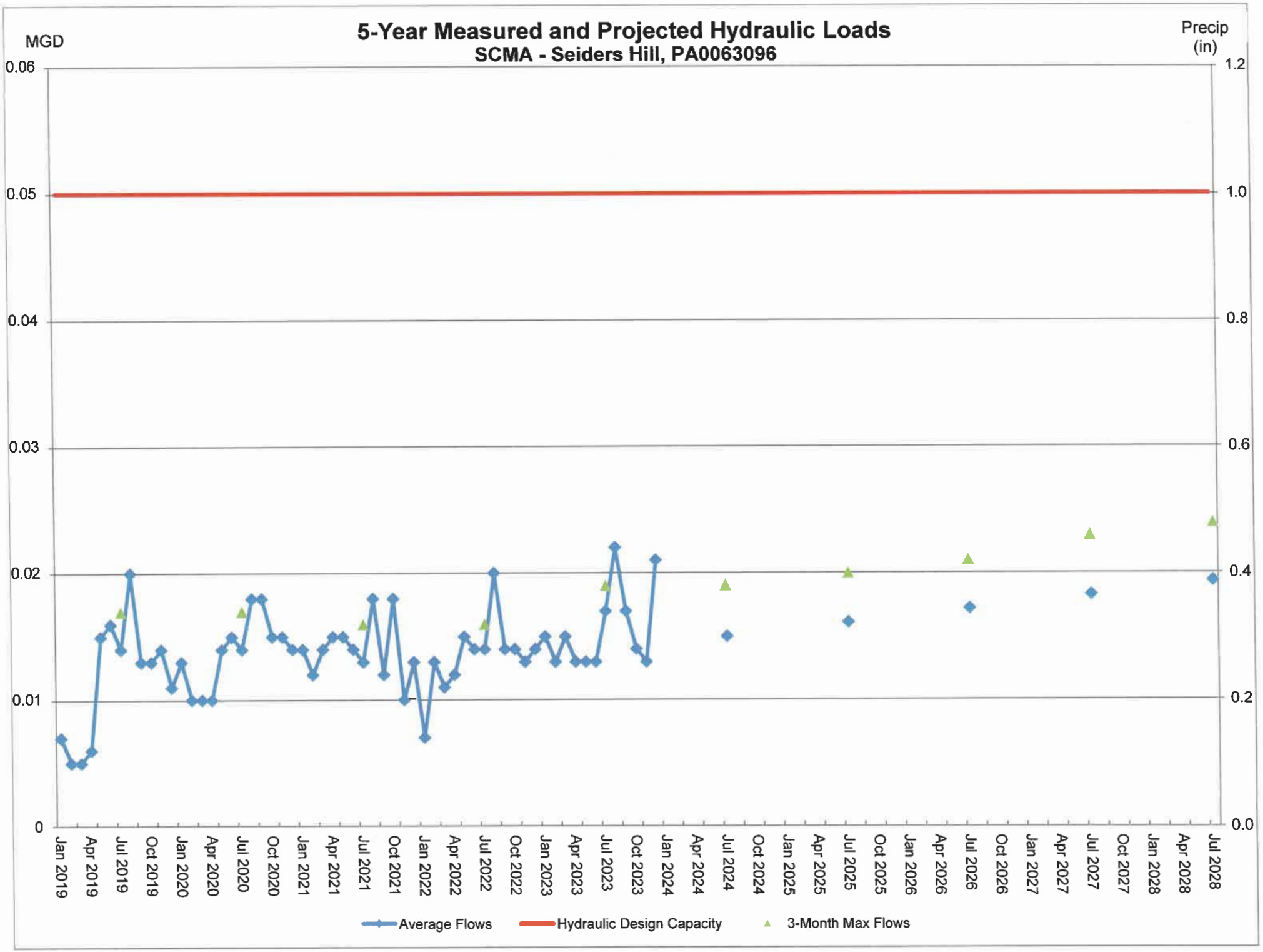

5-Year Measured and Projected Hydraulic Loads
SCMA - Seiders Hill, PA0063096
MGD
Precip (in)
0.06
0.05
0.04
0.03
0.02
0.01
0
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan 2019
Apr 2019
Jul 2019
Oct 2019
Jan 2020
Apr 2020
Jul 2020
Oct 2020
Jan 2021
Apr 2021
Jul 2021
Oct 2021
Jan 2022
Apr 2022
Jul 2022
Oct 2022
Jan 2023
Apr 2023
Jul 2023
Oct 2023
Jan 2024
Apr 2024
Jul 2024
Oct 2024
Jan 2025
Apr 2025
Jul 2025
Oct 2025
Jan 2026
Apr 2026
Jul 2026
Oct 2026
Jan 2027
Apr 2027
Jul 2027
Oct 2027
Jan 2028
Apr 2028
Jul 2028
Average Flows
Hydraulic Design Capacity
3-Month Max Flows

Table #1
Hydraulic Loading Data

TABLE #1

HYDRAULIC LOADING DATA
MONTHLY AVERAGE FLOW (MGD) FOR THE

SEIDERS HILL WASTEWATER TREATMENT PLANT

MONTH	2019	2020	2021	2022	2023
January	0.007	0.013	0.014	0.007	0.015
February	0.005	0.01	0.012	0.013	0.013
March	0.005	0.01	0.014	0.011	0.015
April	0.006	0.01	0.015	0.012	0.013
May	0.015	0.014	0.015	0.015	0.013
June	0.016*	0.015	0.014	0.014*	0.013
July	0.014*	0.014	0.013	0.014*	0.017*
August	0.02*	0.018*	0.018*	0.020*	0.022*
September	0.013	0.018*	0.012*	0.014	0.017*
October	0.013	0.015*	0.018*	0.014	0.014
November	0.014	0.015	0.010	0.013	0.013
December	0.011	0.014	0.013	0.014	0.021
Total	0.139	0.166	0.168	0.162	0.184
Average	0.011	0.013	0.014	0.014	0.015
Maximum 3-Consecutive Month Average	0.016	0.017	0.016	0.016	0.018
Ratio	1.44	1.23	1.14	1.20	1.19

* Indicates maximum 3-consecutive months

5 Year Average Ratio = 1.24
Used as multiplier for Maximum 3 consecutive-month Average Daily Flow Projections

5 Year Average Flow = 0.014

Table #2
Projected Hydraulic Loadings

TABLE #2

PROJECTED HYDRAULIC LOADINGS FOR THE
SEIDERS HILL WASTEWATER TREATMENT PLANT

YEAR	PRIOR ANNUAL AVERAGE FLOW (MGD)	ANNUAL FLOW INCREASE (MGD)	PROJECTED ANNUAL AVERAGE FLOW (MGD)
2023	---	---	0.014*
2024	0.014	0.001	0.015
2025	0.015	0.001	0.016
2026	0.016	0.001	0.017
2027	0.017	0.001	0.018
2028	0.018	0.001	0.019

*5 Year Average Flow

PROJECTED MAXIMUM 3 CONSECUTIVE-MONTH AVERAGE DAILY FLOW

YEAR	PROJECTED ANNUAL AVERAGE FLOW (MGD)	RATIO**	PROJECTED MAX. 3 CONSECUTIVE-MONTH AVG. DAILY FLOW (MGD)
2024	0.015	1.24	0.018
2025	0.016	1.24	0.019
2026	0.017	1.24	0.021
2027	0.018	1.24	0.022
2028	0.019	1.24	0.023

** 5 Year Average Ratio

Graph #2
Organic Loading Projections

5-Year Measured and Projected Organic Loads

SCMA - Seiders Hill, PA0063096

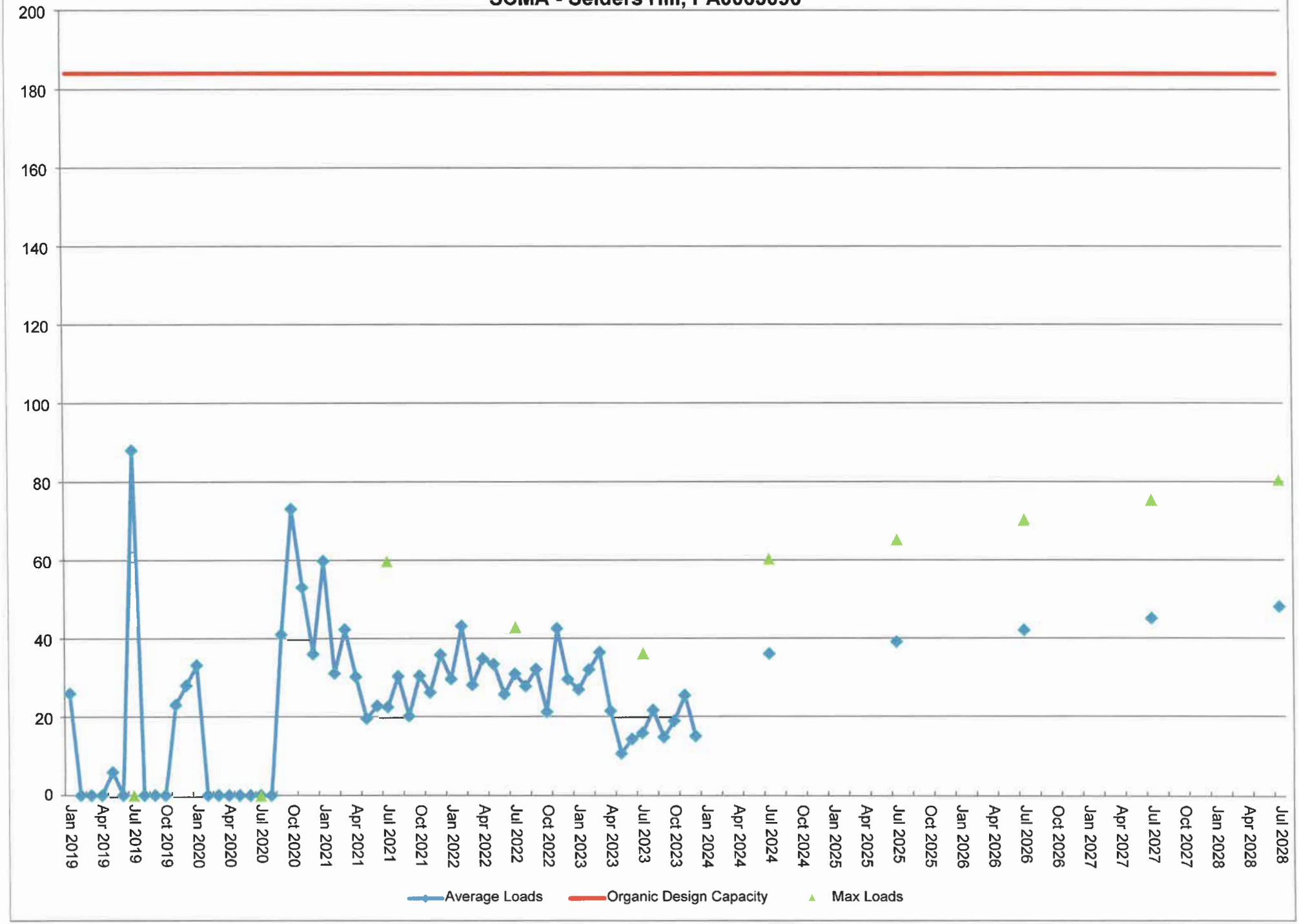


Table #3
Organic Loading Data

TABLE #3

ORGANIC LOADING DATA FOR THE
MONTHLY AVERAGE LOAD (LBS/DAY)
SEIDERS HILL WASTEWATER TREATMENT PLANT

MONTH	2019	2020	2021	2022	2023
January	26	33	60*	30	27
February	-	-	31	43*	32
March	-	-	42	28	36*
April	-	-	30	35	21
May	6	-	20	33	11
June	-	-	23	26	14
July	88*	-	22	31	16
August	-	-	30	28	22
September	-	41	20	32	15
October	-	73*	30	21	19
November	23	53	26	42	25
December	28	36	36	29	15
Total	171	236	371	378	253
Minimum	6	33	20	21	11
Maximum*	88	73	60	43	36
Average	34	47	31	32	21
Ratio	2.57	1.55	1.93	1.37	1.73

* Indicates maximum monthly average load

5 Year Average Loading = 33

5 Year Average Ratio = 1.83

Table #4
Projected Organic Loadings

TABLE #4

SEIDERS HILL TOWNSHIP WASTEWATER TREATMENT PLANT

PROJECTED ORGANIC LOADINGS [BOD(5)]

YEAR	PRIOR ANNUAL AVERAGE ORGANIC LOAD (LBS/DAY)	ANNUAL INCREASED LOAD (LBS/DAY)	PROJECTED ORGANIC LOADING (LBS/DAY)
	-	-	33*
2023	33	3	36
2024	36	3	39
2025	39	3	42
2026	42	3	45
2027	45	3	48

*5 Yr. Average Loading = 33

Increased Flow 0.0025 MGD Increased Load 4 lbs/day

$$0.0025 MGD \times 200 \frac{mg}{L} \times 8.34 = 4 \frac{lbs}{day}$$

PROJECTED MAXIMUM ORGANIC LOADINGS BOD_5 (LBS/DAY)

YEAR	PROJECTED ORGANIC LOADING (LBS/DAY)	RATIO**	PROJECTED MAX. MONTHLY ORGANIC LOADING
2024	36	1.83	66
2025	39	1.83	71
2026	42	1.83	77
2027	45	1.83	82
2028	48	1.83	88

**5 Year Average Ratio = 1.83

Appendix B

Location Map

Schuylkill County Municipal Authority

Seiders Hill WWTP

Seiders Hill WWTP

Treatment Plant

New Life Christian Acad

HILLSIDE RD

TWP HWY 711

RED HORSE RD

TWP HWY 696

CRESSONA RD

GRACY RD

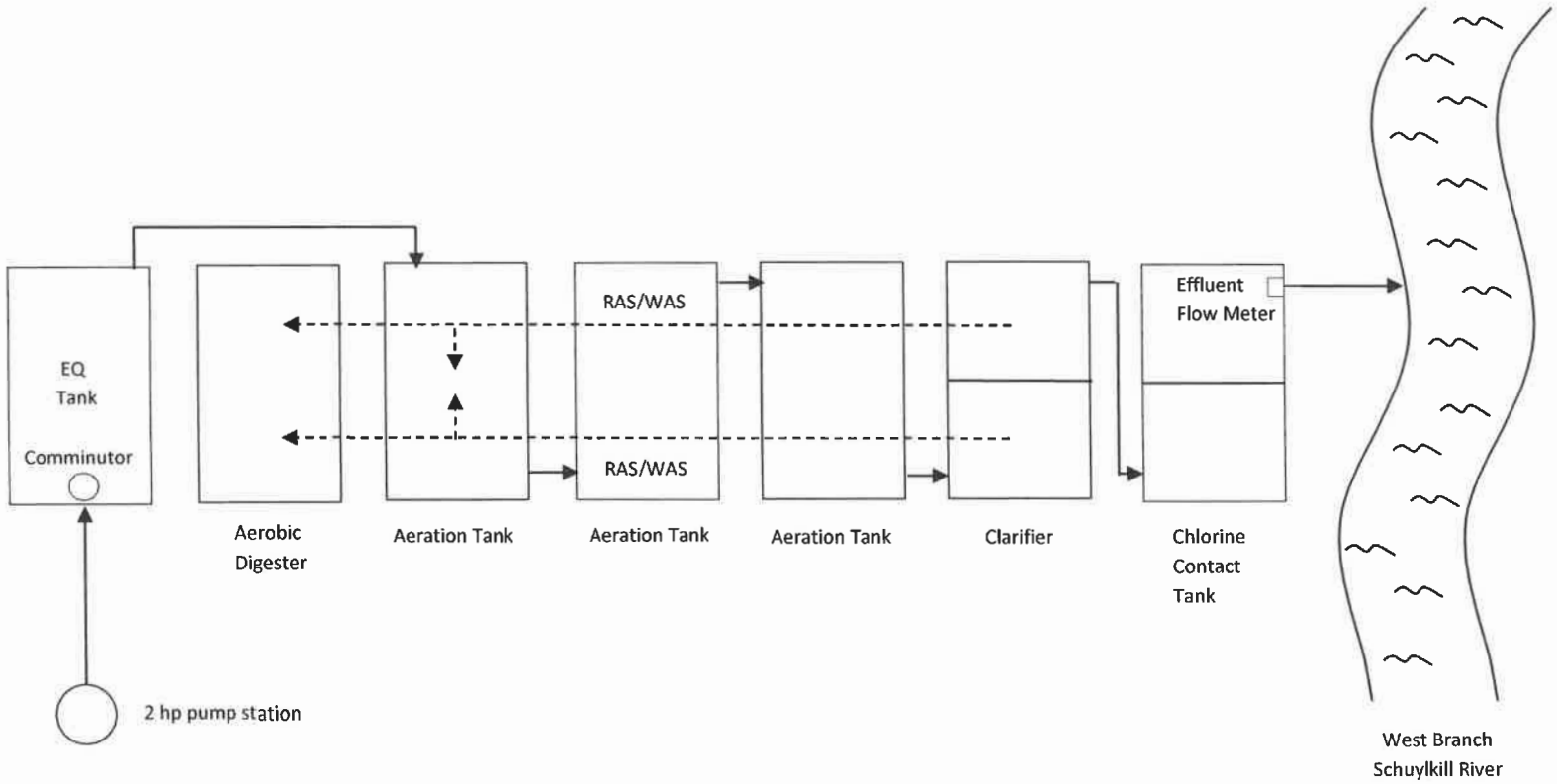
West Branch Schuylkill River

0 465 930 1,860 2,790 3,720 Feet

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed February, 2020.

Prepared by Schuylkill County Municipal Authority
A. Gantz 2020

Treatment Plant Schematic



Seiders Hill Wastewater Treatment Plant

Municipal Wasteload Management

Chapter 94 Report

March 2021

Schuylkill County Municipal Authority

221 South Centre St.

Pottsville, PA 17901

570-622-8240

Calibration Report

Report of Calibration

MoyerInstruments

Customer:	SCMA - Seiders Hill STP	Invoice #.:	29119
Address:	P.O. Box 359	Flow Element:	30 Deg V Notch Weir
	Pottsville, PA 17901	Calibration Date:	2/8/2023
Manufacturer:	Endress & Hauser	Due Date:	2/8/2024
Model:	FMR20	Temp.:	7°C
Serial No.:	T100EC1517A	Humidity:	64 %RH
Description:	Radar Flow Meter	Unit Received:	In Specification
Asset No.:	T100EC1517A	Unit Returned.:	In Specification
Method:	Head vs. Flow	Report No.:	006811

TEST STANDARDS

NIST Test Standard	Model No.	Calibration Due	Serial No.
Isco Handbook	6th Edition	1/1/2025	ISBN 0-9622757
Johansson	16IN	12/2/2025	NA

Comments: Endress & Hauser RSG35 Video Recorder Scaled 0-50 GPM

The equipment herein described has been tested for accuracy of calibration by Moyer Instruments, Inc. The test instrument(s) used in said calibration has been checked for conformance and traceability to National Institute of Standards and Technology (N.I.S.T.). Calibrations, as applicable, are performed in compliance with the requirements of ANSI/NCSL Z540.3-2006(R2013) and ISO 10012:2003. The results are only applicable for the date of calibration noted and for the specific instrument(s) listed. Reported uncertaintiesare expanded uncertainties of measurement calculated using a coverage factor of K=2 for a confidence level of approximately 95%. This report shall not be reproduced, except in full, without the written consent of Moyer Instruments Inc.

Metrological Officer: Sam DePue

Sam DePue

Service Area Map

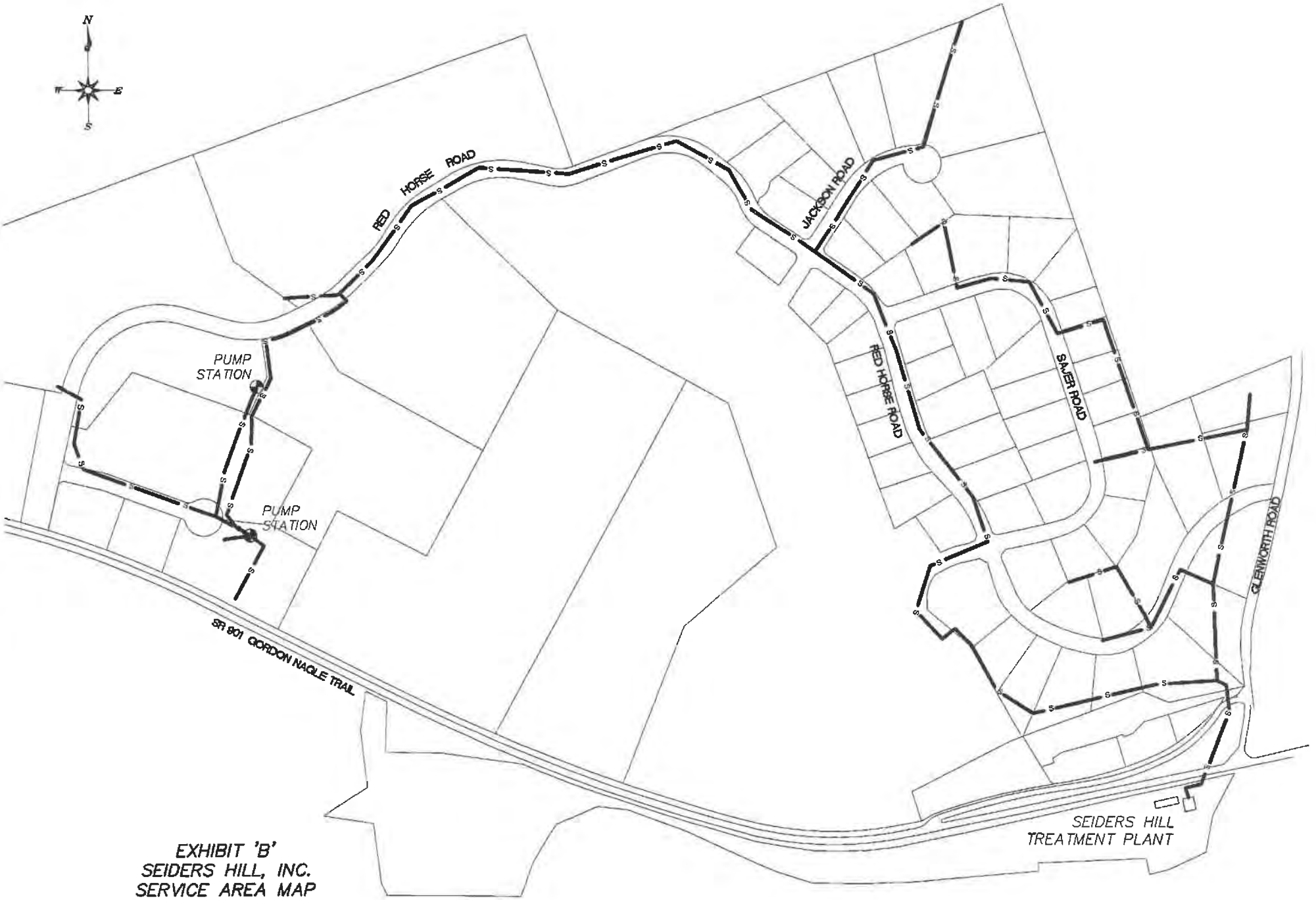


EXHIBIT 'B'
SEIDERS HILL, INC.
SERVICE AREA MAP

North Manheim Township
Schuylkill County, PA

Scale: 1"=400' Date: 05/27/2020

Appendix C

Sewage Sludge Management Inventory

CASE NAME Schuylkill County Municipal Authority - Seider's Hill

PERMIT NUMBER: PA0064068 **Year:** 2023

Month	Average Flow (MGD)	Average Influent BOD (mg/L)	Average Influent BOD (lbs/day)	Average Effluent CBOD (mg/L)	Average Effluent BOD (mg/L)	Average Effluent BOD (lbs/day)	Sludge Hauled (Gallons)	Sludge Hauled(dry tons)
January	0.015	257.00	26.88	4.60	1.89	0.23	0.00	0.00
February	0.013	247.50	31.97	5.10	2.09	0.22	10000.00	0.63
March	0.015	339.50	36.41	5.45	2.23	0.28	0.00	0.00
April	0.013	183.00	21.37	10.85	4.45	0.49	0.00	0.00
May	0.013	108.20	10.64	10.50	4.31	0.46	0.00	0.00
June	0.013	131.00	14.20	4.40	1.80	0.19	8515.00	0.53
July	0.017	131.00	15.79	2.00	0.82	0.11	0.00	0.00
August	0.022	135.00	16.95	2.00	0.82	0.15	7251.00	0.45
September	0.017	166.00	14.76	1.66	0.68	0.10	0.00	0.00
October	0.014	180.50	18.84	2.35	0.96	0.11	0.00	0.00
November	0.013	263.00	25.38	2.80	1.15	0.13	4552.00	0.28
December	0.021	165.00	15.00	3.00	1.23	0.22	0.00	0.00
Total	0.18	2306.70	248.21	54.71	22.43	2.68		1.90
Average	0.02	192.23	20.68	4.56	1.87	0.22		0.16
Min	0.01	108.20	10.64	1.66	0.68	0.10	0	0.00
Max	0.02	339.50	36.41	10.85	4.45	0.49	10000	0.63

Appendix D

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2023

☒ Permittee is owner and/or operator of a POTW or other sewage treatment facility
☐ Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

GENERAL INFORMATION			
Permittee Name:	**Schuylkill County Mun. Auth.**	Permit No.:	**PA0063096**
Mailing Address:	**221 South Centre Street**	Effective Date:	**9/1/2020**
City, State, Zip:	**Pottsville, PA 17901**	Expiration Date:	**12/31/2023**
Contact Person:	**Troy K. Miller**	Renewal Due Date:	**7/4/2023**
Title:	**Environmental Manager**	Municipality:	**North Manheim Township**
Phone:	**570-622-8240**	County:	**Schuylkill**
Email:	**tmiller@scmawater.com**	Consultant Name:	

CHAPTER 94 REPORT COMPONENTS

1. Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (25 Pa. Code § 94.12(a)(1))

   Check the appropriate boxes:
   ☒ Line graph for flows attached (**Attachment A1**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment D1**)
   ☐ Section 1 is not applicable (report is for a collection system).

2. Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (25 Pa. Code § 94.12(a)(2))

   Check the appropriate boxes:
   ☒ Line graph for organic loads attached (**Attachment A2**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment D2**)
   ☐ Section 2 is not applicable (report is for a collection system).

3. If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. (25 Pa. Code § 94.12(a)(3))

   The projected data indicates that the plant will not be hydraulically or organically overloaded within the next five (5) years.

4. Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. (25 Pa. Code § 94.12(a)(4))

Check the appropriate boxes:

- ☐ Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (**Attachment**)
- ☐ List summarizing each extension or project attached (**Attachment**)
- ☐ Schedules describing how each project will be completed over time and effects attached (**Attachment**)

Comments:

No sewer extensions were completed in 2023.

5. Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))

Please see section 6

6. Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))

Check the appropriate boxes:

- ☐ System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.
- ☒ System did not experience capacity-related bypassing, SSOs or surcharging during the report year.

Comments:

Please see section 7.0 of the report.

7. Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))

Check the appropriate boxes:

☐ The collection system does not contain pump stations
☒ The collection system does contain pump stations (Number – **1**)
☒ Discussion of condition of each pump station attached (**Attachment S8**)

8. If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8))

a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.

b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.

c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

Check the appropriate boxes:

☐ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)
☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

☐ This report demonstrates an existing hydraulic overload condition.
☐ This report demonstrates a projected hydraulic overload condition.
☐ This report demonstrates an existing organic overload condition.
☐ This report demonstrates a projected organic overload condition.

If one or more boxes above have been checked, attach a Corrective Action Plan (CAP) to reduce or eliminate present or projected overloaded conditions under §§ 94.21 and/or 94.22 (relating to existing overload and projected overload). (25 Pa. Code § 94.12(a)(9))

☐ Corrective Action Plan attached (**Attachment**)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year.

☒ Sewage Sludge Management Inventory attached (**Attachment C**)

11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems).

☐ Annual CSO Report attached (**Attachment**)

12. For POTWs, attach a calibration report documenting that flow measuring, indicating and recording equipment has been calibrated annually. (25 Pa. Code § 94.13(b))

☒ Flow calibration report attached (**Attachment B3**)

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Amy S. Batdorf	Amy S Batdorf
Name of Responsible Official	Signature
570-622-8240	3/25/24
Telephone No.	Date

PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Troy K. Miller	Troy Miller
Name of Preparer	Signature
570-622-8240	3/25/24
Telephone No.	Date

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT INSTRUCTIONS

This form has been developed to promote consistency in the development of annual municipal wasteload management reports ("Chapter 94 reports") required by 25 Pa. Code § 94.12. At least two copies of the complete report must be submitted to the appropriate regional office of the Department of Environmental Protection (DEP) by March 31.

Enter the calendar year that the report covers at the top of the form. Check the appropriate box to indicate whether the permittee is the owner/operator of a publicly owned treatment works (POTW) or other sewage treatment facility, or is the owner/operator of a sewage collection system that is tributary to a POTW owned/operated by a different entity.

General Information

Record the name of the permittee, the permittee's full mailing address, the permittee's contact person and this person's title, phone number and email address. Also record the permit number (NPDES or WQM), the effective date of permit coverage, the expiration date of permit coverage (if applicable), the date by which an application or NOI is due for reissuance (renewal) (if applicable), the municipality and county where the sewage treatment facility or collection system is located, and the name of the consultant (company name), if any, who assisted in the preparation of the form.

Chapter 94 Report Components

This section requests responses to 12 questions that, if applicable, must be addressed for a complete Chapter 94 report. Questions 1 – 9 and 12 come directly from the Chapter 94 regulations, i.e., 25 Pa. Code §§ 94.12(a)(1) – 94.12(a)(9) and 94.13(b). Some questions request that you check an appropriate box, attach the information requested, and specify the attachment number, while responses to other questions may be entered directly on the form.

For Questions 1 and 2, permittees may use DEP's Chapter 94 Spreadsheet to satisfy 25 Pa. Code §§ 94.12(a)(1) and 94.12(a)(2), respectively. DEP encourages use of the Chapter 94 Spreadsheet to provide consistency in the format and calculations associated with hydraulic and organic load evaluations (see www.depweb.state.pa.us/chapter94). If the Chapter 94 Spreadsheet was used, check the appropriate box(es) and attach printouts of the data and graphs to the Chapter 94 report. If this report is being used for a collection system only, these graphs are not needed.

For Question 6, if the permittee checks the box that there were capacity-related bypasses or SSOs during the report year, in general the box for existing hydraulic overload in Question 9 should be checked. If the permittee checks the box in Question 6 because surcharging occurred during the report year, in general the box for projected hydraulic overload in Question 9 should be checked.

For Question 8, if the permittee has an EPA-approved pretreatment program, attachment of an annual pretreatment report as required in an NPDES permit will satisfy the requirement for an industrial waste report.

For Question 10, if a permit requires a "Sewage Sludge Management" inventory, check the appropriate box if the inventory is attached to the Chapter 94 report.

For Question 11, if an NPDES permit (individual permit or, for satellite collection systems, PAG-06 General NPDES permit coverage) requires an Annual CSO (Status) report, attach the CSO report to the Chapter 94 report and check the appropriate box.

Certification

In accordance with 25 Pa. Code § 94.12(a), both the individual who prepared the report and (a responsible official of) the permittee must sign the report. The term "responsible official" for a municipality is a principal executive officer or ranking elected official.

Questions on the completion of Chapter 94 reports may be directed to DEP's Bureau of Point and Non-Point Source Management at (717) 787-8184 or to the appropriate DEP regional office (contact information available by visiting DEP's website, www.depweb.state.pa.us, and selecting Regional Resources).

APPENDIX K

EXHIBIT 6 DMRS AND SLUDGE DISPOSAL 2021-2023

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Jan-21

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	14065.8	0.014		0.00	0.00		0.00		0.00		0.00		0.03	6.68		7.72
2	13211.1	0.013		1.30	0.00		0.00		0.00		0.00		0.03	6.83		8.69
3	14089.6	0.014		0.00	0.20		0.00		0.00		0.00		0.02	7.55		8.79
4	14111.6	0.014		0.00	0.60		0.00		0.00		0.00		0.02	6.54		9.33
5	14758.1	0.015		0.00	0.10	8.60	1.06	10.00	1.23	0.28	0.03	10.00	0.00	6.85		9.47
6	11556.5	0.012		0.00	0.00		0.00		0.00		0.00		0.03	6.98		8.91
7	13882.2	0.014		0.00	0.00		0.00		0.00		0.00		0.09	6.60		9.44
8	12873.7	0.013		0.00	0.00		0.00		0.00		0.00		0.00	6.79		8.99
9	14081.5	0.014		0.00	0.00		0.00		0.00		0.00		0.04	8.07		9.75
10	13838.2	0.014		0.00	0.00		0.00		0.00		0.00		0.04	8.07		9.39
11	13677.8	0.014		0.00	0.00		0.00		0.00		0.00		0.00	8.39		9.61
12	13947.5	0.014		0.00	0.00	6.90	0.80	11.00	1.28	0.21	0.02	100.00	0.00	7.22		8.60
13	12949.7	0.013		0.00	0.00		0.00		0.00		0.00		0.05	6.79		9.10
14	14223.1	0.014		0.00	0.00		0.00		0.00		0.00		0.00	6.96		8.87
15	13242.1	0.013		0.00	0.00		0.00		0.00		0.00		0.00	7.06		8.90
16	13686.6	0.014		0.80	0.00		0.00		0.00		0.00		0.01	6.84		9.56
17	14732.1	0.015		0.00	0.00		0.00		0.00		0.00		0.02	6.98		8.50
18	15394.8	0.015		0.00	0.00		0.00		0.00		0.00		0.06	7.50		8.42
19	12669.9	0.013		0.00	0.00		0.00		0.00		0.00		0.01	7.06		8.04
20	14349.3	0.014		0.00	0.00		0.00		0.00		0.00		0.10	7.20		8.53
21	14669.1	0.015		0.00	0.00		0.00		0.00		0.00		0.02	6.24		8.14
22	14473.7	0.014		0.00	0.00		0.00		0.00		0.00		0.00	7.18		12.34
23	9373.5	0.009		0.00	0.00		0.00		0.00		0.00		0.05	6.34		13.45
24	8706.2	0.009		0.00	0.00		0.00		0.00		0.00		0.11	6.90		15.15
25	16954.6	0.017		0.00	0.00		0.00		0.00		0.00		0.00	7.34		15.01
26	13918.7	0.014		0.00	0.10		0.00		0.00		0.00		0.11	6.90		13.27
27	17277.4	0.017		0.00	0.10		0.00		0.00		0.00		0.00	7.79		10.72
28	11957.2	0.012		0.00	0.00		0.00		0.00		0.00		0.00	7.05		10.30
29	13777.5	0.014		0.00	0.00		0.00		0.00		0.00		0.13	7.45		12.06
30	12653.8	0.013		0.00	0.00		0.00		0.00		0.00		0.00	8.97		10.88
31	14307.5	0.014		0.00	0.00		0.00		0.00		0.00		0.05	6.53		11.06
Avg	13658.4	0.014		Total Rain	Total Snow	7.75	0.93	10.50	1.26	0.25	0.03	Mean	0.03	Min	Max	Min
Max	17277.4	0.017		2.10	1.10	8.60	1.06	11.00	1.28	0.28	0.03	31.62	0.13	6.24	8.97	7.72

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of: February 2021**

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	13058.0	0.013		0.00	8.00		0.00		0.00		0.00		0.00	6.89		12.63
2	13762.7	0.014		0.00	10.00		0.00		0.00		0.00		0.05	7.80		15.46
3	13674.4	0.014		0.00	0.50	2.40	0.27	16.00	1.82	0.20	0.02	10.00	0.08	7.18		10.89
4	11902.9	0.012		0.00	0.00		0.00		0.00		0.00		0.00	6.89		13.28
5	18888.9	0.019		0.00	2.00		0.00		0.00		0.00		0.00	6.72		12.28
6	12559.1	0.013		0.00	0.00		0.00		0.00		0.00		0.00	6.75		10.36
7	12002.7	0.012		0.00	2.00		0.00		0.00		0.00		0.00	7.94		11.64
8	2475.0	0.002		0.00	0.00		0.00		0.00		0.00		0.00	7.01		10.84
9	7302.5	0.007		0.00	3.00		0.00		0.00		0.00		0.10	6.72		11.22
10	9034.7	0.009		0.00	0.00	5.00	0.38	3.00	0.23	0.18	0.01	10.00	0.06	6.72		9.51
11	11812.6	0.012		0.00	5.00		0.00		0.00		0.00		0.00	7.88		9.70
12	9500.8	0.010		0.00	0.00		0.00		0.00		0.00		0.00	7.38		10.31
13	12928.0	0.013		0.00	0.00		0.00		0.00		0.00		0.08	7.32		11.40
14	12799.5	0.013		0.00	0.00		0.00		0.00		0.00		0.09	7.35		11.45
15	11572.0	0.012		0.00	0.00		0.00		0.00		0.00		0.05	7.62		11.31
16	12359.9	0.012		0.90	0.00		0.00		0.00		0.00		0.00	7.73		16.77
17	15582.4	0.016		0.00	0.00		0.00		0.00		0.00		0.00	7.86		11.44
18	11824.1	0.012		0.00	0.25		0.00		0.00		0.00		0.09	7.42		14.55
19	12183.0	0.012		0.00	6.00		0.00		0.00		0.00		0.02	8.00		11.89
20	12435.8	0.012		0.00	0.00		0.00		0.00		0.00		0.00	7.51		10.57
21	12673.1	0.013		0.00	0.00		0.00		0.00		0.00		0.00	7.59		9.68
22	10011.7	0.010		0.00	0.00		0.00		0.00		0.00		0.00	7.85		11.34
23	13795.8	0.014		0.00	6.00		0.00		0.00		0.00		0.03	7.81		10.97
24	13513.4	0.014		0.00	0.00		0.00		0.00		0.00		0.00	7.47		11.62
25	13003.7	0.013		0.90	0.00		0.00		0.00		0.00		0.02	7.40		11.33
26	10884.2	0.011		0.00	0.00		0.00		0.00		0.00		0.00	7.40		8.35
27	14538.3	0.015		0.20	0.00		0.00		0.00		0.00		0.03	7.27		8.59
28	16568.9	0.017		0.60	0.00		0.00		0.00		0.00		0.02	7.67		10.39
29																
30																
31																
Avg	12237.43	0.012		Total Rain	Total Snow	3.70	0.33	9.50	1.03	0.19	0.02	Mean	0.03	Min	Max	Min
Max	18888.90	0.019		2.60	42.75	5.00	0.38	16.00	1.82	0.20	0.02	10.00	0.10	6.72	8.00	8.35

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Mar-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	11854.9	0.012		1.00			0.00		0.00		0.00		0.07	7.57		11.40
2	12967.5	0.013		0.00		3.80	0.41	3.00	0.32	0.18	0.02	10.00	0.08	7.79		9.47
3	13122.7	0.013		0.00			0.00		0.00		0.00		0.06	7.39		12.23
4	11840.3	0.012		0.00			0.00		0.00		0.00		0.04	7.61		12.00
5	13553.7	0.014		0.00			0.00		0.00		0.00		0.07	7.80		7.52
6	13317.8	0.013		0.20			0.00		0.00		0.00		0.02	7.51		11.96
7	11846.8	0.012		0.00			0.00		0.00		0.00		0.02	7.52		12.32
8	12737.9	0.013		0.00			0.00		0.00		0.00		0.00	7.88		11.77
9	12411.1	0.012		0.00		4.70	0.49	3.00	0.31	0.58	0.06	10.00	0.00	7.90		10.39
10	13104.1	0.013		0.00			0.00		0.00		0.00		0.00	7.52		10.19
11	10361.7	0.010		0.00			0.00		0.00		0.00		0.00	7.82		10.59
12	13272.0	0.013		0.00			0.00		0.00		0.00		0.00	7.72		14.47
13	12208.9	0.012		0.00			0.00		0.00		0.00		0.00	7.57		14.55
14	12577.1	0.013		0.00			0.00		0.00		0.00		0.00	7.51		13.29
15	13773.9	0.014		0.00			0.00		0.00		0.00		0.00	7.70		11.08
16	13397.7	0.013		0.00			0.00		0.00		0.00		0.00	7.69		11.80
17	11276.6	0.011		0.00			0.00		0.00		0.00		0.05	6.84		13.58
18	12557.7	0.013		0.01			0.00		0.00		0.00		0.00	7.56		11.09
19	16816.9	0.017		0.60			0.00		0.00		0.00		0.00	7.24		10.67
20	16762.3	0.017		0.00			0.00		0.00		0.00		0.09	7.39		10.97
21	14642.0	0.015		0.00			0.00		0.00		0.00		0.08	7.38		11.52
22	11490.5	0.011		0.00			0.00		0.00		0.00		0.00	7.42		11.19
23	15274.9	0.015		0.00			0.00		0.00		0.00		0.08	7.48		6.93
24	13748.2	0.014		0.01			0.00		0.00		0.00		0.00	7.49		11.25
25	15703.2	0.016		0.50			0.00		0.00		0.00		0.00	7.44		11.92
26	15955.7	0.016		0.30			0.00		0.00		0.00		0.00	7.78		12.36
27	14892.7	0.015		0.00			0.00		0.00		0.00		0.11	7.28		12.20
28	14797.1	0.015		0.80			0.00		0.00		0.00		0.24	7.25		12.24
29	14226.5	0.014		0.60			0.00		0.00		0.00		0.00	7.71		12.07
30	14449.5	0.014		0.00			0.00		0.00		0.00		0.01	7.56		12.35
31	14733.0	0.015		0.00			0.00		0.00		0.00		0.00	7.53		12.63
Avg	13537.9	0.014		Total Rain	Total Snow	4.25	0.45	3.00	0.32	0.38	0.04	Mean	0.03	Min	Max	Min
Max	16816.9	0.017		4.02	0.00	4.70	0.49	3.00	0.32	0.58	0.06	10.00	0.24	6.84	7.90	6.93

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Apr-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	18256.2	0.018		0.50			0.00		0.00		0.00		0.00	7.38		11.42
2	16805.2	0.017		0.00			0.00		0.00		0.00		0.05	7.20		10.97
3	14642.0	0.015		0.00			0.00		0.00		0.00		0.05	7.05		11.81
4	17473.8	0.017		0.00			0.00		0.00		0.00		0.02	7.13		9.74
5	18962.5	0.019		0.00			0.00		0.00		0.00		0.08	6.99		10.49
6	17017.0	0.017		0.00		6.90	0.98	7.00	0.99	0.50	0.07	10.00	0.00	7.62		13.49
7	17140.1	0.017		0.01			0.00		0.00		0.00		0.00	7.52		11.88
8	18506.2	0.019		0.00			0.00		0.00		0.00		0.01	7.51		10.99
9	17950.1	0.018		0.00			0.00		0.00		0.00		0.00	7.51		9.78
10	1733.4	0.002		0.00			0.00		0.00		0.00		0.00	7.69		9.66
11	17555.0	0.018		0.60			0.00		0.00		0.00		0.00	7.83		8.11
12	18401.0	0.018		0.50			0.00		0.00		0.00		0.00	7.23		9.67
13	17012.5	0.017		0.00		7.20	1.02	12.00	1.70	0.24	0.03	10.00	0.01	7.48		9.93
14	16025.0	0.016		0.00			0.00		0.00		0.00		0.00	7.00		9.67
15	17194.3	0.017		0.00			0.00		0.00		0.00		0.00	7.67		9.54
16	18390.9	0.018		0.00			0.00		0.00		0.00		0.00	7.59		9.66
17	18173.1	0.018		0.00			0.00		0.00		0.00		0.11	6.65		9.27
18	18411.4	0.018		0.00			0.00		0.00		0.00		0.06	6.95		9.15
19	15201.5	0.015		0.00			0.00		0.00		0.00		0.00	7.55		9.67
20	12198.1	0.012		0.00			0.00		0.00		0.00		0.00	7.12		9.57
21	11920.2	0.012		0.00			0.00		0.00		0.00		0.00	7.70		9.33
22	10211.8	0.010		0.00			0.00		0.00		0.00		0.09	7.46		9.84
23	12264.2	0.012		0.00			0.00		0.00		0.00		0.00	7.82		9.77
24	10017.6	0.010		0.00			0.00		0.00		0.00		0.57	6.79		10.66
25	12501.9	0.013		0.30			0.00		0.00		0.00		0.05	6.86		10.04
26	13064.8	0.013		0.00			0.00		0.00		0.00		0.08	7.49		9.87
27	14995.5	0.015		0.00			0.00		0.00		0.00		0.04	7.52		9.58
28	12141.2	0.012		0.00			0.00		0.00		0.00		0.00	7.91		15.09
29	13161.3	0.013		0.10			0.00		0.00		0.00		0.00	7.72		10.59
30	15163.2	0.015		0.40			0.00		0.00		0.00		0.00	7.37		13.16
31																
Avg	14596.5	0.015		Total Rain	Total Snow	7.05	1.00	9.50	1.35	0.37	0.05	Mean	0.04	Min	Max	Min
Max	18962.5	0.019		2.41	0.00	7.20	1.02	12.00	1.70	0.50	0.07	10.00	0.57	6.65	7.91	8.11

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** May-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	13001.1	0.013		0.10			0.00		0.00		0.00		0.00	7.42		14.38
2	13643	0.014		0.00			0.00		0.00		0.00		0.00	7.19		12.20
3	14749.6	0.015		0.90			0.00		0.00		0.00		0.00	7.30		11.59
4	15240.3	0.015		0.10		7.40	0.94	49.00	6.23	0.47	0.06	10.00	0.00	7.03		11.91
5	20140	0.020		1.30			0.00		0.00		0.00		0.00	7.65		13.01
6	15667	0.016		0.00			0.00		0.00		0.00		0.00	7.10		13.43
7	14682.4	0.015		0.35			0.00		0.00		0.00		0.02	7.13		13.03
8	16845.7	0.017		0.00			0.00		0.00		0.00		0.02	6.99		13.04
9	15344.9	0.015		0.40			0.00		0.00		0.00		0.03	7.13		12.79
10	17820.1	0.018		0.00			0.00		0.00		0.00		0.02	7.06		13.24
11	16299.6	0.016		0.00			0.00		0.00		0.00		0.04	6.89		7.32
12	17007.5	0.017		0.00			0.00		0.00		0.00		0.04	7.05		7.18
13	16461.3	0.016		0.00			0.00		0.00		0.00		0.03	7.12		8.99
14	18286.4	0.018		0.00			0.00		0.00		0.00		0.05	7.08		10.56
15	15846.7	0.016		0.00			0.00		0.00		0.00		0.05	7.33		11.10
16	17173.9	0.017		0.00			0.00		0.00		0.00		0.06	7.47		12.85
17	16993.1	0.017		0.00			0.00		0.00		0.00		0.10	7.53		12.12
18	16752.6	0.017		0.00			0.00		0.00		0.00		0.02	7.30		6.74
19	14162	0.014		0.00			0.00		0.00		0.00		0.01	7.31		8.71
20	11089.9	0.011		0.00			0.00		0.00		0.00		0.00	7.29		11.49
21	12340.2	0.012		0.00			0.00		0.00		0.00		0.00	7.02		7.29
22	10971.1	0.011		0.00			0.00		0.00		0.00		0.04	7.06		6.53
23	10195.4	0.010		0.00			0.00		0.00		0.00		0.09	7.17		7.45
24	12244	0.012		0.00			0.00		0.00		0.00		0.03	7.32		7.30
25	13157.3	0.013		0.00			0.00		0.00		0.00		0.02	7.36		6.52
26	12354	0.012		0.00			0.00		0.00		0.00		0.00	7.42		6.09
27	12579.5	0.013		0.00			0.00		0.00		0.00		0.00	7.21		5.62
28	10971.4	0.011		0.00		5.30	0.48	10.00	0.92	0.10	0.01	10.00	0.05	7.58		8.58
29	13093.1	0.013		2.00			0.00		0.00		0.00		0.00	7.67		6.24
30	13109.8	0.013		0.10			0.00		0.00		0.00		0.02	7.85		7.64
31	14080.5	0.014		0.00			0.00	12.00	1.41		0.00		0.00	7.32		6.34
Avg	14590	0.015		Total Rain	Total Snow	6.35	0.71	23.67	2.85	0.29	0.03	Mean	0.02	Min	Max	Min
Max	20140	0.020		5.25	0.00	7.40	0.94	49.00	6.23	0.47	0.06	10.00	0.10	6.89	7.85	5.62

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jun-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	14080.5	0.014		0.00			0.00		0.00		0.00		0.04	7.19		7.11
2	11899.6	0.012		0.00			0.00		0.00		0.00		0.00	7.39		7.83
3	11506.7	0.012		0.00			0.00		0.00		0.00		0.07	7.28		8.77
4	15174.7	0.015		0.00			0.00		0.00		0.00		0.04	7.21		8.57
5	13128.7	0.013		0.00			0.00		0.00		0.00		0.07	7.28		8.44
6	14553.0	0.015		0.00			0.00		0.00		0.00		0.02	7.07		8.52
7	15287.5	0.015		0.00			0.00		0.00		0.00		0.03	7.60		8.30
8	18846.1	0.019		0.00			0.00		0.00		0.00		0.03	7.37		8.51
9	14884.0	0.015		0.00			0.00		0.00		0.00		0.04	7.64		8.58
10	11472.8	0.011		2.50		6.10	0.58	6.00	0.57	0.35	0.03	10.00	0.00	7.66		8.76
11	14647.7	0.015		0.10			0.00		0.00		0.00		0.00	7.36		6.86
12	24674.8	0.025		0.50			0.00		0.00		0.00		0.07	7.77		8.50
13	12871.8	0.013		0.00			0.00		0.00		0.00		0.07	7.56		9.65
14	14056.8	0.014		0.00			0.00		0.00		0.00		0.01	7.20		8.67
15	14316.2	0.014		0.10		2.90	0.35	19.00	2.27	0.29	0.03	10.00	0.00	7.46		8.56
16	13607.6	0.014		0.00			0.00		0.00		0.00		0.14	7.40		8.80
17	13030.6	0.013		0.00			0.00		0.00		0.00		0.01	7.24		9.52
18	13662.0	0.014		0.00			0.00		0.00		0.00		0.00	7.21		7.32
19	16446.0	0.016		0.20			0.00		0.00		0.00		0.04	7.24		6.40
20	15927.8	0.016		0.20			0.00		0.00		0.00		0.05	7.38		8.95
21	17620.7	0.018		2.80			0.00		0.00		0.00		0.11	7.41		9.65
22	13806.7	0.014		0.90			0.00		0.00		0.00		0.00	7.18		6.06
23	14944.7	0.015		0.00			0.00		0.00		0.00		0.00	7.02		6.52
24	12946.1	0.013		0.00			0.00		0.00		0.00		0.00	7.29		9.07
25	12958.1	0.013		0.00			0.00		0.00		0.00		0.00	7.27		6.46
26	11913.6	0.012		0.00			0.00		0.00		0.00		0.02	7.26		5.70
27	13410.3	0.013		0.00			0.00		0.00		0.00		0.00	7.13		6.16
28	12992.2	0.013		0.00			0.00		0.00		0.00		0.00	7.17		6.18
29	12140.8	0.012		0.00			0.00		0.00		0.00		0.03	7.27		8.28
30	12251.7	0.012		0.00			0.00		0.00		0.00		0.25	7.26		7.92
Avg	14302	0.01		Total Rain	Total Snow	4.50	0.46	12.50	1.42	0.32	0.03	Mean	0.04	Min	Max	Min
Max	24674.8	0.02		7.30	0.00	6.10	0.58	19.00	2.27	0.35	0.03	10.00	0.25	7.02	7.77	5.70

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jul-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	12336.4	0.01		0.00			0.00		0.00		0.00		0.02	7.53		8.12
2	11396.4	0.01		0.00			0.00		0.00		0.00		0.00	7.83		8.12
3	13009.3	0.01		1.10			0.00		0.00		0.00		0.03	7.45		7.66
4	11140.9	0.01		0.10			0.00		0.00		0.00		0.01	7.63		6.63
5	13125.3	0.01		0.00			0.00		0.00		0.00		0.03	7.52		8.45
6	13089.2	0.01		0.00			0.00		0.00		0.00		0.02	7.61		8.01
7	14337.7	0.01		0.00		2.70	0.32	4.00	0.48	0.28	0.03	10.00	0.02	7.30		9.31
8	14757.3	0.01		0.00			0.00		0.00		0.00		0.01	7.21		5.37
9	14499.1	0.01		0.50			0.00		0.00		0.00		0.03	7.37		8.01
10	12914.6	0.01		0.00			0.00		0.00		0.00		0.03	7.70		8.64
11	13404.4	0.01		0.00			0.00		0.00		0.00		0.05	7.56		8.35
12	13265.9	0.01		0.50			0.00		0.00		0.00		0.05	7.48		8.15
13	14782.8	0.01		0.50		2.10	0.26	3.00	0.37	0.25	0.03	20.00	0.00	7.53		8.63
14	13700.7	0.01		0.00			0.00		0.00		0.00		0.09	7.77		6.68
15	15475.6	0.02		0.00			0.00		0.00		0.00		0.00	7.23		5.71
16	13874.5	0.01		0.00			0.00		0.00		0.00		0.26	7.59		7.96
17	12016	0.01		1.60			0.00		0.00		0.00		0.22	7.75		8.20
18	9963.9	0.01		0.50			0.00		0.00		0.00		0.08	7.60		7.96
19	10441.6	0.01		0.00			0.00		0.00		0.00		0.02	7.98		8.16
20	17925.9	0.02		0.00			0.00		0.00		0.00		0.02	7.36		6.11
21	16426.4	0.02		0.00			0.00		0.00		0.00		0.00	7.32		5.98
22	13579.4	0.01		0.10			0.00		0.00		0.00		0.03	7.37		7.11
23	12431	0.01		0.00			0.00		0.00		0.00		0.11	7.23		6.83
24	12401.9	0.01		0.00			0.00		0.00		0.00		0.00	7.55		5.57
25	11440.4	0.01		0.00			0.00		0.00		0.00		0.01	7.63		5.13
26	12606.3	0.01		0.00			0.00		0.00		0.00		0.02	7.70		5.55
27	12730.6	0.01		0.00			0.00		0.00		0.00		0.05	7.35		5.62
28	11474.8	0.01		0.00			0.00		0.00		0.00		0.04	7.55		5.65
29	12760.8	0.01		0.00			0.00		0.00		0.00		0.03	7.40		5.15
30	15556.7	0.02		0.70			0.00		0.00		0.00		0.05	7.96		6.02
31	13191.1	0.01		0.00			0.00		0.00		0.00		0.06	7.91		11.06
Avg	13228	0.01		Total Rain	Total Snow	2.40	0.29	3.50	0.42	0.27	0.03	Mean	0.04	Min	Max	Min
Max	17925.9	0.02		5.60	0.00	2.70	0.32	4.00	0.48	0.28	0.03	14.14	0.26	7.21	7.98	5.13

NUTRIENT MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority -Seider's Hill **Month of:** Jul-21

PERMIT NUMBER: PA0063096

	FLOW		Ammonia		Nitrate/Nitrite		TKN		Total N		Total P	
Day	Flow	GPD	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day
1	12336.4	0.012		0.00		0.00		0.00		0.00		0.00
2	11396.4	0.011		0.00		0.00		0.00		0.00		0.00
3	13009.3	0.013		0.00		0.00		0.00		0.00		0.00
4	11140.9	0.011		0.00		0.00		0.00		0.00		0.00
5	13125.3	0.013		0.00		0.00		0.00		0.00		0.00
6	13089.2	0.013		0.00		0.00		0.00		0.00		0.00
7	14337.7	0.014	0.28	0.03	38.9	4.65	4.49	0.54	43.39	5.19	6.09	0.73
8	14757.3	0.015		0.00		0.00		0.00		0.00		0.00
9	14499.1	0.014		0.00		0.00		0.00		0.00		0.00
10	12914.6	0.013		0.00		0.00		0.00		0.00		0.00
11	13404.4	0.013		0.00		0.00		0.00		0.00		0.00
12	13265.9	0.013		0.00		0.00		0.00		0.00		0.00
13	14782.8	0.015		0.00		0.00		0.00		0.00		0.00
14	13700.7	0.014		0.00		0.00		0.00		0.00		0.00
15	15475.6	0.015		0.00		0.00		0.00		0.00		0.00
16	13874.5	0.014		0.00		0.00		0.00		0.00		0.00
17	12016	0.012		0.00		0.00		0.00		0.00		0.00
18	9963.9	0.010		0.00		0.00		0.00		0.00		0.00
19	10441.6	0.010		0.00		0.00		0.00		0.00		0.00
20	17925.9	0.018		0.00		0.00		0.00		0.00		0.00
21	16426.4	0.016		0.00		0.00		0.00		0.00		0.00
22	13579.4	0.014		0.00		0.00		0.00		0.00		0.00
23	12431	0.012		0.00		0.00		0.00		0.00		0.00
24	12401.9	0.012		0.00		0.00		0.00		0.00		0.00
25	11440.4	0.011		0.00		0.00		0.00		0.00		0.00
26	12606.3	0.013		0.00		0.00		0.00		0.00		0.00
27	12730.6	0.013		0.00		0.00		0.00		0.00		0.00
28	11474.8	0.011		0.00		0.00		0.00		0.00		0.00
29	12760.8	0.013		0.00		0.00		0.00		0.00		0.00
30	15556.7	0.016		0.00		0.00		0.00		0.00		0.00
31	13191.1	0.013		0.00		0.00		0.00		0.00		0.00
Avg	13,228	0.01	0.3	0.0	38.9	4.7	4.5	0.5	43.4	5.2	6.1	0.7
Max	17,926	0.02	0.3	0.0	38.9	4.7	4.5	0.5	43.4	5.2	6.1	0.7
Monthly Load				1.04		144.20		16.64		160.84		22.57

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Aug-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	13,101	0.013		0.00		3.30	0.36	4.00	0.44	0.23	0.03	2.00	0.01	7.77		7.67
2	14323.6	0.014		0.45			0.00		0.00		0.00		0.09	7.75		6.47
3	15017.7	0.015		0.00			0.00		0.00		0.00		0.01	7.94		7.35
4	15375.8	0.015		0.00			0.00		0.00		0.00		0.00	8.01		7.46
5	14249.7	0.014		0.00			0.00		0.00		0.00		0.10	7.91		6.91
6	15090	0.015		0.00			0.00		0.00		0.00		0.04	8.04		7.47
7	12419.9	0.012		0.00			0.00		0.00		0.00		0.09	8.25		7.83
8	10778.7	0.011		0.00		2.00	0.18	3.00	0.27	0.26	0.02	2.00	0.07	7.97		6.43
9	11056.8	0.011		0.00			0.00		0.00		0.00		0.07	7.97		6.99
10	2142.4	0.002		0.00			0.00		0.00		0.00		0.08	7.63		7.17
11	15.1	0.000		0.00			0.00		0.00		0.00		0.00			
12	13.1	0.000		0.00			0.00		0.00		0.00		0.00			
13	14.3	0.000		0.50			0.00		0.00		0.00		0.00			
14	15.5	0.000		0.10			0.00		0.00		0.00		0.00			
15	16.7	0.000		0.00			0.00		0.00		0.00		0.00			
16	1559.5	0.002		0.00			0.00		0.00		0.00		0.00			
17	11423.5	0.011		0.20			0.00		0.00		0.00		0.04	7.67		8.68
18	10692	0.011		0.10			0.00		0.00		0.00		0.02	7.54		7.94
19	13381	0.013		3.00			0.00		0.00		0.00		0.03	7.49		5.81
20	12123.4	0.012		0.00			0.00		0.00		0.00		0.01	7.44		8.14
21	10819.2	0.011		0.00			0.00		0.00		0.00		0.03	7.24		7.28
22	13607	0.014		0.10			0.00		0.00		0.00		0.04	7.58		7.23
23	13969.7	0.014		1.00			0.00		0.00		0.00		0.06	7.63		6.24
24	12678.3	0.013		0.30			0.00		0.00		0.00		0.05	7.61		7.60
25	14605.1	0.015		0.00			0.00		0.00		0.00		0.05	7.69		7.50
26	12548.3	0.013		0.00			0.00		0.00		0.00		0.02	7.91		6.43
27	11491.2	0.011		0.00			0.00		0.00		0.00		0.03	7.58		5.80
28	11927.2	0.012		0.35			0.00		0.00		0.00		0.00	7.76		6.14
29	12891.4	0.013		0.00			0.00		0.00		0.00		0.16	7.73		7.17
30	12606.2	0.013		0.00			0.00		0.00		0.00		0.05	7.56		6.30
31	13850.4	0.014		0.00			0.00		0.00		0.00		0.00	7.48		5.42
Avg	10123	0.01		Total Rain	Total Snow	2.65	0.27	3.50	0.35	0.25	0.02	Mean	0.04	Min	Max	Min
Max	15376	0.02		6.10	0.00	3.30	0.36	4.00	0.44	0.26	0.03	2.00	0.16	7.24	8.25	5.42

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Sep-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	12507.5	0.013		1.20		3.30	0.34	4.00	0.42	0.23	0.02	2.00	0.02	7.43		8.42
2	24751.8	0.025		6.00			0.00		0.00		0.00		0.00	7.28		6.72
3	11025.3	0.011		0.00			0.00		0.00		0.00		0.09	7.34		6.65
4	9999	0.010		0.00			0.00		0.00		0.00		0.19	7.57		8.73
5	11596.2	0.012		0.00			0.00		0.00		0.00		0.16	7.71		8.96
6	12714.2	0.013		0.30			0.00		0.00		0.00		0.05	7.66		8.69
7	14811.3	0.015		0.00			0.00		0.00		0.00		0.01	7.78		5.83
8	11328.2	0.011		0.00		2.00	0.19	3.00	0.28	0.26	0.02	2.00	0.00	7.64		7.00
9	11343.3	0.011		0.50			0.00		0.00		0.00		0.00	7.85		6.64
10	12018.8	0.012		0.00			0.00		0.00		0.00		0.02	7.28		6.15
11	10416.3	0.010		0.00			0.00		0.00		0.00		0.01	7.33		7.40
12	9732.8	0.010		0.00			0.00		0.00		0.00		0.02	7.47		7.22
13	12213.6	0.012		0.00			0.00		0.00		0.00		0.09	7.88		8.49
14	11509.8	0.012		0.00			0.00		0.00		0.00		0.00	7.53		5.56
15	10947.7	0.011		0.00			0.00		0.00		0.00		0.00	7.67		8.74
16	12681.8	0.013		1.00			0.00		0.00		0.00		0.03	7.52		5.95
17	12726.5	0.013		0.00			0.00		0.00		0.00		0.00	7.51		6.14
18	9726.9	0.010		0.00			0.00		0.00		0.00		0.01	7.53		5.65
19	11341.2	0.011		0.00			0.00		0.00		0.00		0.00	7.60		6.72
20	10757.9	0.011		0.00			0.00		0.00		0.00		0.01	7.66		6.73
21	11131.4	0.011		0.00			0.00		0.00		0.00		0.00	7.87		5.89
22	10765.7	0.011		0.00			0.00		0.00		0.00		0.02	7.54		5.56
23	21925	0.022		1.80			0.00		0.00		0.00		0.01	7.99		6.21
24	13356.5	0.013		0.50			0.00		0.00		0.00		0.00	6.72		6.06
25	10029	0.010		0.00			0.00		0.00		0.00		0.01	7.39		7.34
26	10297	0.010		0.00			0.00		0.00		0.00		0.06	7.54		6.92
27	10419	0.010		0.00			0.00		0.00		0.00		0.00	7.93		5.81
28	10070.9	0.010		0.60			0.00		0.00		0.00		0.01	7.82		7.78
29	13199.8	0.013		0.00			0.00		0.00		0.00		0.46	7.44		7.62
30	11142.3	0.011		0.00			0.00		0.00		0.00		0.08	7.55		9.38
31																
Avg	11822	0.01		Total Rain	Total Snow	2.65	0.27	3.50	0.35	0.25	0.02	Mean	0.05	Min	Max	Min
Max	24752	0.02		11.90	0.00	3.30	0.34	4.00	0.42	0.26	0.02	2.00	0.46	6.72	7.99	5.56

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Oct-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	gpd	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	10783.6	0.011		0.00			0.00		0.00		0.00		0.08	7.53		10.48
2	9461.2	0.009		0.00			0.00		0.00		0.00		0.12	7.57		9.14
3	11755.2	0.012		0.00			0.00		0.00		0.00		0.13	7.45		9.32
4	14211.1	0.014		0.75			0.00		0.00		0.00		0.02	7.39		10.80
5	16133.1	0.016		0.01		2.30	0.31	13.00	1.75	0.23	0.03	5.00	0.04	7.57		8.76
6	125720	0.126		0.00			0.00		0.00		0.00		0.00	7.98		7.40
7	12371.5	0.012		0.00			0.00		0.00		0.00		0.00	7.25		8.53
8	12050.1	0.012		0.00			0.00		0.00		0.00		0.01	7.95		8.53
9	10803.5	0.011		0.10			0.00		0.00		0.00		0.05	7.58		8.12
10	12644.8	0.013		0.00			0.00		0.00		0.00		0.02	7.48		7.12
11	13849.8	0.014		0.00			0.00		0.00		0.00		0.02	7.70		8.00
12	11252.5	0.011		0.00		5.00	0.47	10.00	0.94	0.27	0.03	3.00	0.04	7.40		8.36
13	10781.9	0.011		0.00			0.00		0.00		0.00		0.02	7.29		8.62
14	11053.1	0.011		0.00			0.00		0.00		0.00		0.03	7.44		8.16
15	9746.7	0.010		0.00			0.00		0.00		0.00		0.02	7.08		7.94
16	11007.2	0.011		0.00			0.00		0.00		0.00		0.00	7.67		6.15
17	89875.3	0.090		0.00			0.00		0.00		0.00		0.00	7.70		6.13
18	10771.1	0.011		0.00			0.00		0.00		0.00		0.00	7.45		6.20
19	9951.7	0.010		0.00			0.00		0.00		0.00		0.03	7.64		8.03
20	9917.9	0.010		0.00			0.00		0.00		0.00		0.04	7.83		9.08
21	10506.6	0.011		0.00			0.00		0.00		0.00		0.07	7.56		8.52
22	13836.8	0.014		0.00			0.00		0.00		0.00		0.04	7.56		8.11
23	9369.6	0.009		0.05			0.00		0.00		0.00		0.09	7.63		8.44
24	9732.3	0.010		0.00			0.00		0.00		0.00		0.02	7.55		7.91
25	11093.6	0.011		0.10			0.00		0.00		0.00		0.05	7.58		9.62
26	13163.7	0.013		0.85			0.00		0.00		0.00		0.00	7.77		10.34
27	10728.8	0.011		0.20			0.00		0.00		0.00		0.02	7.72		8.27
28	11261.1	0.011		0.00			0.00		0.00		0.00		0.02	7.75		9.21
29	12784.2	0.013		0.10			0.00		0.00		0.00		0.01	7.63		9.00
30	13770.5	0.014		2.10			0.00		0.00		0.00		0.00	7.07		5.13
31	12383.5	0.012		0.30			0.00		0.00		0.00		0.00	7.94		5.15
Avg	17831.35	0.02		Total Rain	Total Snow	3.65	0.39	11.50	1.34	0.25	0.03	Mean	0.03	Min	Max	Min
Max	125720	0.13		4.56	0.00	5.00	0.47	13.00	1.75	0.27	0.03	3.87	0.13	7.07	7.98	5.13

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Nov-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	11194.9	0.0112		0.00			0.00		0.00		0.00		0.09	7.69		7.78
2	9673	0.0097		0.00			0.00		0.00		0.00		0.04	7.92		9.36
3	8814.5	0.0088		0.00		9.30	0.68	19.00	1.40	0.31	0.02	2.00	0.00	7.45		9.21
4	9672.5	0.0097		0.00			0.00		0.00		0.00		0.04	7.59		7.55
5	7579.9	0.0076		0.00			0.00		0.00		0.00		0.00	7.58		12.36
6	8507.2	0.0085		0.00			0.00		0.00		0.00		0.09	7.62		10.30
7	8486.6	0.0085		0.00			0.00		0.00		0.00		0.07	7.60		11.02
8	14337.8	0.0143		0.00			0.00		0.00		0.00		0.12	7.56		9.65
9	11569.2	0.0116		0.00			0.00		0.00		0.00		0.01	7.57		9.05
10	12398.7	0.0124		0.00			0.00		0.00		0.00		0.01	7.44		8.08
11	10793.4	0.0108		0.00			0.00		0.00		0.00		0.00	7.31		9.16
12	21081.3	0.0211		2.00			0.00		0.00		0.00		0.17	7.44		8.20
13	11224.8	0.0112		0.80			0.00		0.00		0.00		0.06	6.90		9.43
14	11828.4	0.0118		0.25			0.00		0.00		0.00		0.10	7.23		8.99
15	11551.2	0.0116		0.20			0.00		0.00		0.00		0.09	7.19		9.06
16	10494.6	0.0105		0.00			0.00		0.00		0.00		0.04	7.22		8.40
17	11879.7	0.0119		0.00			0.00		0.00		0.00		0.02	7.31		8.46
18	10776.6	0.0108		0.10		13.70	1.23	37.00	3.33	0.23	0.02	15.00	0.04	7.43		9.36
19	9843.4	0.0098		0.00			0.00		0.00		0.00		0.00	7.57		7.64
20	8016.9	0.0080		0.00			0.00		0.00		0.00		0.00	7.26		6.73
21	8462.3	0.0085		0.30			0.00		0.00		0.00		0.00	7.24		5.84
22	9303	0.0093		0.00			0.00		0.00		0.00		0.10	7.53		10.52
23	9923.7	0.0099		0.00			0.00		0.00		0.00		0.04	7.48		9.42
24	10966.6	0.0110		0.00			0.00		0.00		0.00		0.08	7.67		7.43
25	9702.4	0.0097		0.00			0.00		0.00		0.00		0.00	7.77		6.02
26	9221.3	0.0092		0.00			0.00		0.00		0.00		0.01	7.90		7.36
27	6750	0.0068		0.00			0.00		0.00		0.00		0.06	7.81		7.45
28	7391.8	0.0074		0.10			0.00		0.00		0.00		0.00	7.64		7.44
29	10496.2	0.0105		0.00			0.00		0.00		0.00		0.00	7.40		9.36
30	8341.6	0.0083		0.00			0.00		0.00		0.00		0.00	7.31		8.75
31																
Avg	10009	0.01		Total Rain	Total Snow	11.50	0.96	28.00	2.36	0.27	0.02	Mean	0.04	Min	Max	Min
Max	21081	0.02		3.75	0.00	13.70	1.23	37.00	3.33	0.31	0.02	5.48	0.17	6.90	7.92	5.84

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Dec-21

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	7860.0	0.008		0.00			0.00		0.00		0.00		0.01	6.99		6.41
2	14156.8	0.014		0.35			0.00		0.00		0.00		0.01	7.09		10.10
3	10698.2	0.011		0.00			0.00		0.00		0.00		0.02	7.42		9.04
4	9141.8	0.009		0.00			0.00		0.00		0.00		0.00	7.35		8.42
5	8057.1	0.008		0.00			0.00		0.00		0.00		0.00	7.51		9.12
6	9144.3	0.009		0.00			0.00		0.00		0.00		0.00	7.39		8.96
7	10110.4	0.010		0.01			0.00		0.00		0.00		0.00	7.43		12.04
8	99841.1	0.100		0.00			0.00		0.00		0.00		0.04	7.86		9.63
9	11114.8	0.011		0.00			0.00		0.00		0.00		0.01	8.07		12.79
10	10970.2	0.011		0.00			0.00		0.00		0.00		0.32	7.59		9.11
11	11787.6	0.012		0.10			0.00		0.00		0.00		0.02	7.53		8.74
12	9778.1	0.010		1.00			0.00		0.00		0.00		0.03	7.09		6.38
13	10956.9	0.011		0.00			0.00		0.00		0.00		0.08	7.11		9.44
14	10324.5	0.010		0.00			0.00		0.00		0.00		0.29	7.16		8.89
15	10316.2	0.010		0.00			0.00		0.00		0.00		0.08	7.14		11.04
16	10608.0	0.011		0.00			0.00		0.00		0.00		0.90	7.19		8.32
17	10112.1	0.010		0.00			0.00		0.00		0.00		0.00	7.48		9.53
18	9882.9	0.010		0.10			0.00		0.00		0.00		0.10	7.45		9.65
19	10605.4	0.011		0.00			0.00		0.00		0.00		0.13	7.46		6.54
20	10058.1	0.010		0.00			0.00		0.00		0.00		0.09	7.58		9.85
21	9737.0	0.010		0.00		4.20	0.34	9.00	0.73	0.19	0.02	8.00	0.08	7.36		10.31
22	9554.6	0.010		0.00			0.00		0.00		0.00		0.12	7.39		9.85
23	7995.6	0.008		0.00			0.00		0.00		0.00		0.10	7.56		12.03
24	11984.4	0.012		0.00			0.00		0.00		0.00		0.02	7.37		12.67
25	9056.9	0.009		0.00	0.10		0.00		0.00		0.00		0.01	7.60		11.62
26	9730.5	0.010		0.00			0.00		0.00		0.00		0.00	7.76		11.94
27	9353.0	0.009		0.00			0.00		0.00		0.00		0.07	7.57		9.50
28	12811.3	0.013		0.10		4.10	0.44	4.00	0.43	0.14	0.01	15.00	0.12	7.30		9.78
29	9802.9	0.010		0.60			0.00		0.00		0.00		0.15	7.45		8.96
30	10509.4	0.011		0.00			0.00		0.00		0.00		0.08	7.60		8.90
31	10841.4	0.011		0.10			0.00		0.00		0.00		0.07	7.64		9.94
Avg	13125.9	0.013		Total Rain	Total Snow	4.15	0.39	6.50	0.58	0.17	0.02	Mean	0.10	Min	Max	12.79
Max	99841.1	0.100		2.36	0.10	4.20	0.44	9.00	0.73	0.19	0.02	10.95	0.90	6.99	8.07	6.38

Influent Results

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Year:** 2021
PERMIT NUMBER: PA0064068

Month	Flow (MGD)	BOD	BOD (lbs.)	COD	COD (lbs.)	TSS	TSS (lbs.)	Total NH3	otal NH3 (lbs	Total P	Total P (lbs.)
January	0.015	575.00	71.93	1270.00	158.88	444.00	55.54	42.60	5.33	7.88	0.99
	0.014	407.00	47.52			164.00	19.15				
			0.00				0.00				
			0.00				0.00				
AVG.		**491.00**	**29.86**	**1270.00**	**158.88**	**304.00**	**18.67**	**42.60**	**5.33**	**7.88**	**0.99**
MAX.		**575.00**	**71.93**	**1270.00**	**158.88**	**444.00**	**55.54**	**42.60**	**5.33**	**7.88**	**0.99**
February	0.014	418.00	48.81	526.00	61.42	67.00	7.82	35.00	4.09	6.26	0.73
	0.009	176.00	13.21			788.00	59.15				
			0.00				0.00				
			0.00				0.00				
AVG.		**297.00**	**15.50**	**526.00**	**61.42**	**427.50**	**16.74**	**35.00**	**4.09**	**6.26**	**0.73**
MAX.		**418.00**	**48.81**	**526.00**	**61.42**	**788.00**	**59.15**	**35.00**	**4.09**	**6.26**	**0.73**
March	0.013	420.00	45.54	746.00	80.88	342.00	37.08	33.60	3.64	7.74	0.84
	0.012	390.00	39.03			274.00	27.42		0.00		0.00
AVG.		**405.00**	**42.28**	**746.00**	**80.88**	**457.88**	**35.10**	**33.60**	**1.82**	**7.74**	**0.42**
MAX.		**420.00**	**45.54**	**746.00**	**80.88**	**342.00**	**37.08**	**33.60**	**3.64**	**7.74**	**0.84**
April	0.017	208.00	29.49	246.00	34.88	107.00	15.17	22.80	3.23	3.93	0.56
	0.017	213.00	30.20			110.00	15.60				
AVG.	**0.150**	**213.00**	**30.20**			**110.00**	**15.60**	**22.80**	**3.23**	**3.93**	**0.56**
MAX.		**213.00**	**30.20**	**246.00**	**34.88**	**110.00**	**15.60**	**22.80**	**3.23**	**3.93**	**0.56**
May	0.015	156.00	19.52	369.00	46.16	190.00	23.77	22.50	2.81	4.85	0.61
AVG.		**156.00**	**19.52**	**369.00**	**46.16**	**190.00**	**23.77**	**22.50**	**2.81**	**4.85**	**0.61**
MAX.		**156.00**	**19.52**	**369.00**	**46.16**	**190.00**	**23.77**	**22.50**	**2.81**	**4.85**	**0.61**
June	0.015	156.00	19.52	369.00	46.16	2190.00	273.97	22.50	2.81	1.85	0.23
	0.011	284.00	26.05		0.00	272.00	24.95		0.00		0.00
AVG.		**220.00**	**22.78**	**369.00**	**23.08**	**1231.00**	**149.46**	**22.50**	**1.41**	**1.85**	**0.12**
MAX.		**284.00**	**26.05**	**369.00**	**46.16**	**2190.00**	**273.97**	**22.50**	**2.81**	**1.85**	**0.23**
July	0.011	256.00	23.49	336.00	30.82	190.00	17.43	25.30	2.32	6.64	0.61
	0.014	183.00	21.37			172.00	20.08				
AVG.		**219.50**	**22.43**	**336.00**	**30.82**	**181.00**	**18.76**	**25.30**	**2.32**	**6.64**	**0.61**
MAX.		**256.00**	**23.49**	**336.00**	**30.82**	**190.00**	**20.08**	**25.30**	**2.32**	**6.64**	**0.61**
August	0.013	167.00	18.11	351.00	38.06	9.00	0.98	22.90	2.48	5.25	0.57
	0.015	242.00	30.27			242.00	30.27				
AVG.		**242.00**	**30.27**	**351.00**	**38.06**	**242.00**	**30.27**	**22.90**	**2.48**	**5.25**	**0.57**
MAX.		**242.00**	**30.27**	**351.00**	**38.06**	**242.00**	**30.27**	**22.90**	**2.48**	**5.25**	**0.57**
September	0.013	167.00	18.11	351.00	38.06	9.00	0.98	22.90	2.48	5.25	0.57
	0.011	242.00	22.20			165.00	15.14				
AVG.		**204.50**	**20.15**	**351.00**	**38.06**	**87.00**	**8.06**	**22.90**	**2.48**	**5.25**	**0.57**
MAX.		**242.00**	**22.20**	**351.00**	**38.06**	**165.00**	**15.14**	**22.90**	**2.48**	**5.25**	**0.57**
October	0.016	251.00	32.66	264.00	34.35	242.00	31.49	24.40	3.17	6.41	0.83
	0.011	308.00	28.26			336.00	30.82				
AVG.		**279.50**	**30.46**	**264.00**	**34.35**	**289.00**	**31.15**	**24.40**	**3.17**	**6.41**	**0.83**
MAX.		**308.00**	**32.66**	**264.00**	**34.35**	**336.00**	**31.49**	**24.40**	**3.17**	**6.41**	**0.83**
November	0.0088	383.00	28.11	793.00	58.20	334.00	24.51	36.80	2.70	5.98	0.44
	0.0108	270.00	24.32			194.00	17.47				
AVG.		**326.50**	**26.21**	**793.00**	**58.20**	**264.00**	**20.99**	**36.80**	**2.70**	**5.98**	**0.44**
MAX.		**383.00**	**28.11**	**793.00**	**58.20**	**334.00**	**24.51**	**36.80**	**2.70**	**5.98**	**0.44**
December	0.010	255.00	21.27			207.00	17.26				
	0.013	465.00	50.42	896.00	97.14	443.00	48.03	33.30	3.61	5.88	0.64
AVG.		**360.00**	**35.84**	**896.00**	**97.14**	**325.00**	**32.65**	**33.30**	**3.61**	**5.88**	**0.64**
MAX.		**465.00**	**50.42**	**896.00**	**97.14**	**443.00**	**48.03**	**33.30**	**3.61**	**5.88**	**0.64**
Annual Average		284.50	27.13	570.09	60.64	342.36	33.44	28.72	2.96	5.66	0.59

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Jan-22

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	10679.1	0.011		0.00	0.00		0.00		0.00		0.00		0.14	7.60		9.61
2	9934.7	0.010		0.80	0.00		0.00		0.00		0.00		0.09	7.72		8.65
3	8543.3	0.009		0.00	0.00		0.00		0.00		0.00		0.00	7.89		9.82
4	8071.9	0.008		0.00	0.00		0.00		0.00		0.00		0.11	7.77		10.15
5	11975.24	0.012		0.00	0.00		0.00		0.00		0.00		0.01	8.02		11.70
6	9700.7	0.010		0.00	0.00		0.00		0.00		0.00		0.10	7.75		10.90
7	8874.2	0.009		0.00	3.50		0.00		0.00		0.00		0.05	7.67		13.30
8	8973.7	0.009		0.00	0.00		0.00		0.00		0.00		0.04	8.21		9.90
9	10020.4	0.010		0.00	0.10		0.00		0.00		0.00		0.07	7.77		11.01
10	10286	0.010		0.00	0.10		0.00		0.00		0.00		0.02	7.33		9.65
11	11496.4	0.011		0.00	0.10		0.00		0.00		0.00		0.00	7.43		11.90
12	9968.8	0.010		0.00	0.00		0.00		0.00		0.00		0.01	7.85		10.07
13	9296.8	0.009		0.00	0.00		0.00		0.00		0.00		0.10	7.59		9.57
14	8874.1	0.009		0.00	0.00		0.00		0.00		0.00		0.00	7.71		9.30
15	8117.3	0.008		0.00	0.00		0.00		0.00		0.00		0.00	7.64		5.00
16	9333.4	0.009		0.00	0.00		0.00		0.00		0.00		0.00	7.73		10.01
17	8733.1	0.009		0.00	0.90		0.00		0.00		0.00		0.08	7.31		10.06
18	5942.6	0.006		0.00	0.10		0.00		0.00		0.00		0.00	7.58		7.42
19	9106.6	0.009		0.00	0.00		0.00		0.00		0.00		0.07	7.47		9.56
20	9493.4	0.009		0.00	0.10	7.70	0.61	10.00	0.79	0.23	0.02	3.00	0.03	7.50		9.64
21	9396.2	0.009		0.00	0.00		0.00		0.00		0.00		0.02	7.30		9.12
22	8764.6	0.009		0.00	0.00		0.00		0.00		0.00		0.00	7.00		9.63
23	9191.3	0.009		0.00	0.00		0.00		0.00		0.00		0.06	7.31		9.44
24	5882.5	0.006		0.00	0.50		0.00		0.00		0.00		0.01	7.49		11.00
25	69.4	0.000		0.00	0.00		0.00		0.00		0.00		0.00	7.66		13.40
26	9191.3	0.009		0.00	0.00	12.60	0.97	20.00	1.53	0.02	0.00	2.00	0.06	8.04		9.34
27	0	0.000		0.00	0.00		0.00		0.00		0.00		0.05	7.49		11.14
28	0	0.000		0.00	1.00		0.00		0.00		0.00		0.00	7.32		11.27
29	0	0.000		0.00	0.00		0.00		0.00		0.00		0.08	7.42		10.80
30	0	0.000		0.00	0.00		0.00		0.00		0.00		0.07	7.47		10.55
31	0	0.000		0.00	0.00		0.00		0.00		0.00		0.05	7.48		10.41
Avg	7416.679	0.01		Total Rain	Total Snow	10.15	0.79	15.00	1.16	0.13	0.01	Mean	0.04	Min	Max	Min
Max	11975.24	0.01		0.80	6.40	12.60	0.97	20.00	1.53	0.23	0.02	2.45	0.14	7.00	8.21	5.00

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of: February 2022**

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	11041.10	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.92		11.04
2	12628.00	0.01		0.00	0.00	7.90	0.83	25.00	2.63	0.10	0.01	58.00	0.03	7.23		9.96
3	8946.20	0.01		0.50	0.00		0.00		0.00		0.00		0.00	7.55		11.36
4	27095.20	0.03		2.50	0.00		0.00		0.00		0.00		0.01	7.52		8.53
5	16343.10	0.02		0.00	0.00		0.00		0.00		0.00		0.03	7.94		8.59
6	13094.80	0.01		0.00	0.00		0.00		0.00		0.00		0.01	6.71		7.58
7	14655.40	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.45		12.74
8	11125.70	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.45		8.60
9	12503.30	0.01		0.00	0.00		0.00		0.00		0.00		0.04	7.47		8.11
10	8010.50	0.01		0.00	0.00		0.00		0.00		0.00		0.06	7.75		8.55
11	12103.20	0.01		0.00	0.00		0.00		0.00		0.00		0.02	7.09		10.25
12	12562.20	0.01		0.00	0.00		0.00		0.00		0.00		0.02	7.79		7.16
13	12287.10	0.01		0.00	1.00		0.00		0.00		0.00		0.10	7.56		6.25
14	11365.40	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.67		5.17
15	18389.30	0.02		0.00	0.00		0.00		0.00		0.00		0.00	7.69		9.90
16	17845.50	0.02		0.00	0.00		0.00		0.00		0.00		0.00	7.76		10.46
17	13033.50	0.01		0.00	0.00		0.00		0.00		0.00		0.07	7.85		12.08
18	15431.20	0.02		0.80	0.00		0.00		0.00		0.00		0.00	8.10		10.34
19	12138.20	0.01		0.00	0.00		0.00		0.00		0.00		0.03	8.03		9.63
20	12445.80	0.01		0.00	0.00		0.00		0.00		0.00		0.00	8.00		11.14
21	12622.90	0.01		0.00	0.00		0.00		0.00		0.00		0.00	8.10		9.42
22	11790.90	0.01		0.00	0.00		0.00		0.00		0.00		0.06	7.77		9.51
23	10898.50	0.01		0.50	0.00		0.00		0.00		0.00		0.04	7.52		11.42
24	11615.50	0.01		0.00	0.00	6.60	0.64	5.00	0.48	0.14	0.01	10.00	0.00	7.80		9.88
25	14623.00	0.01		0.50	0.00		0.00		0.00		0.00		0.01	7.85		10.16
26	13184.10	0.01		0.00	0.00		0.00		0.00		0.00		0.07	7.66		11.20
27	10901.10	0.01		0.00	0.00		0.00		0.00		0.00		0.11	7.50		11.64
28	11237.90	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.67		9.86
29																
30																
31																
Avg	13211.38	0.01		Total Rain	Total Snow	7.25	0.74	15.00	1.56	0.12	0.01	Mean	0.03	Min	Max	Min
Max	27095.20	0.03		4.80	1.00	7.90	0.83	25.00	2.63	0.14	0.01	24.08	0.11	6.71	8.10	5.17

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Mar-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	10054	0.010					0.00		0.00		0.00		0.03	7.65		11.25
2	12415	0.012				11.10	1.15	15.00	1.55	0.10	0.01	2.00	0.00	7.72		10.89
3	12893	0.013					0.00		0.00		0.00		0.04	7.81		12.60
4	10280	0.010					0.00		0.00		0.00		0.07	7.81		9.20
5	11357	0.011					0.00		0.00		0.00		0.00	7.69		8.38
6	9754	0.010					0.00		0.00		0.00		0.00	7.64		8.83
7	9861	0.010					0.00		0.00		0.00		0.00	7.59		6.74
8	11132	0.011					0.00		0.00		0.00		0.01	7.74		7.60
9	12639	0.013				15.50	1.63	15.00	1.58	0.10	0.01	2.00	0.00	7.66		8.20
10	14056	0.014					0.00		0.00		0.00		0.02	7.63		8.20
11	10303	0.010					0.00		0.00		0.00		0.00	7.62		9.08
12	12486	0.012					0.00		0.00		0.00		0.02	8.27		11.20
13	4528	0.005					0.00		0.00		0.00		0.02	8.15		11.78
14	11707	0.012					0.00		0.00		0.00		0.02	7.80		8.96
15	11034	0.011					0.00		0.00		0.00		0.00	7.60		8.07
16	11821	0.012					0.00		0.00		0.00		0.00	7.71		8.59
17	11576	0.012					0.00		0.00		0.00		0.00	7.67		8.62
18	10043	0.010					0.00		0.00		0.00		0.00	7.64		8.28
19	11980	0.012					0.00		0.00		0.00		0.00	7.66		10.36
20	10475	0.010					0.00		0.00		0.00		0.01	7.85		8.39
21	10696	0.011					0.00		0.00		0.00		0.07	7.90		7.98
22	10029	0.010					0.00		0.00		0.00		0.00	7.87		7.83
23	14569	0.015					0.00		0.00		0.00		0.06	7.99		10.35
24	10819	0.011					0.00		0.00		0.00		0.03	7.82		8.34
25	12850	0.013					0.00		0.00		0.00		0.00	7.75		8.42
26	10056	0.010					0.00		0.00		0.00		0.02	7.96		8.35
27	10394	0.010					0.00		0.00		0.00		0.00	7.86		8.28
28	10716	0.011					0.00		0.00		0.00		0.07	7.78		8.11
29	12595	0.013					0.00		0.00		0.00		0.02	7.95		11.25
30	10083	0.010					0.00		0.00		0.00		0.00	7.77		9.12
31	13021	0.013					0.00		0.00		0.00		0.00	7.91		10.18
Avg	11168.45	0.011		Total Rain	Total Snow	13.30	1.39	15.00	1.57	0.10	0.01	Mean	0.02	Min	Max	Min
Max	14569	0.015		0.00	0.00	15.50	1.63	15.00	1.58	0.10	0.01	2.00	0.07	7.59	8.27	6.74

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Apr-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	15799.2	0.0158		1.40			0.00		0.00		0.00		0.00	7.92		9.70
2	11335.0	0.0113		0.00			0.00		0.00		0.00		0.03	8.19		8.80
3	12270.7	0.0123		0.10			0.00		0.00		0.00		0.03	7.72		8.90
4	13369.9	0.0134		1.00			0.00		0.00		0.00		0.07	8.01		10.33
5	12237.2	0.0122		0.00			0.00		0.00		0.00		0.13	7.80		8.70
6	12750.9	0.0128		0.75		7.80	0.83	6.00	0.64	0.32	0.03	2.00	0.16	7.81		8.44
7	17182.0	0.0172		0.00			0.00		0.00		0.00		0.00	7.88		9.62
8	17638.4	0.0176		1.50			0.00		0.00		0.00		0.04	7.81		10.36
9	12077.6	0.0121		0.20			0.00		0.00		0.00		0.05	7.85		10.00
10	13345.3	0.0133		0.10			0.00		0.00		0.00		0.01	7.92		9.96
11	11340.0	0.0113		0.00			0.00		0.00		0.00		0.00	7.76		10.20
12	10759.6	0.0108		0.00		7.50	0.67	11.00	0.99	0.02	0.00	2.00	0.00	7.62		10.35
13	11476.3	0.0115		0.00			0.00		0.00		0.00		0.02	7.85		10.43
14	12196.9	0.0122		0.00			0.00		0.00		0.00		0.00	7.82		9.33
15	10661.9	0.0107		0.00			0.00		0.00		0.00		0.07	8.06		10.36
16	11298.00	0.0113		0.00			0.00		0.00		0.00		0.00	8.00		9.20
17	11960.1	0.0120		0.10			0.00		0.00		0.00		0.04	7.58		9.42
18	12378.5	0.0124		0.00			0.00		0.00		0.00		0.00	7.76		9.33
19	18145.1	0.0181		2.00			0.00		0.00		0.00		0.02	7.63		9.77
20	14201.3	0.0142		0.00			0.00		0.00		0.00		0.04	7.56		10.25
21	11085.5	0.0111		0.00			0.00		0.00		0.00		0.00	7.71		9.89
22	10705.00	0.0107		0.00			0.00		0.00		0.00		0.00	7.23		9.59
23	1207.2	0.0012		0.00			0.00		0.00		0.00		0.00	6.98		9.65
24	12074.2	0.0121		0.00			0.00		0.00		0.00		0.00	6.93		9.56
25	15305.1	0.0153		0.00			0.00		0.00		0.00		0.00	7.16		9.80
26	15899.5	0.0159		0.00			0.00		0.00		0.00		0.00	7.25		9.66
27	15563.5	0.0156		0.00			0.00		0.00		0.00		0.00	7.37		9.37
28	14925.00	0.0149		0.00			0.00		0.00		0.00		0.02	7.22		9.72
29	13276.00	0.0133		0.00			0.00		0.00		0.00		0.00	7.17		9.71
30	10963.7	0.0110		0.00			0.00		0.00		0.00		0.02	7.25		8.90
31																
Avg	12369	0.012		Total Rain	Total Snow	7.65	0.75	8.50	0.81	0.17	0.02	Mean	0.03	Min	Max	Min
Max	18145	0.018		7.15	0.00	7.80	0.83	11.00	0.99	0.32	0.03	2.00	0.16	6.93	8.19	8.44

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** May-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH	
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.	
1	10750.4	0.01		0.00			0.00		0.00		0.00		0.01	7.31	
2	10396.7	0.01		0.35			0.00		0.00		0.00		0.05	7.32	
3	10842.1	0.01		0.00			0.00		0.00		0.00		0.05	7.18	
4	15012.4	0.02		0.40			0.00		0.00		0.00		0.00	7.33	
5	10901.4	0.01		0.00			0.00		0.00		0.00		0.08	7.37	
6	11223.7	0.01		2.20			0.00		0.00		0.00		0.06	7.43	
7	17146.2	0.02		1.30			0.00		0.00		0.00		0.00	7.34	
8	17880.1	0.02		0.00			0.00		0.00		0.00		0.00	7.23	
9	12907.6	0.01		0.00			0.00		0.00		0.00		0.00	7.23	
10	12377.3	0.01		0.00		7.80	0.81	34.00	3.51	0.12	0.01	2.00	0.00	7.86	
11	11030.6	0.01		0.00			0.00		0.00		0.00		0.03	7.60	
12	13726.7	0.01		0.00			0.00		0.00		0.00		0.13	7.42	
13	10626.9	0.01		0.00			0.00		0.00		0.00		0.01	7.66	
14	9952.2	0.01		0.10			0.00		0.00		0.00		0.07	7.47	
15	10160.1	0.01		0.15			0.00		0.00		0.00		0.06	7.64	
16	11546.9	0.01		0.00			0.00		0.00		0.00		0.02	7.64	
17	10847.5	0.01		0.10			0.00		0.00		0.00		0.00	7.83	
18	10260	0.01		0.00			0.00		0.00		0.00		0.01	7.89	
19	14336	0.01		0.50			0.00		0.00		0.00		0.00	7.52	
20	10805.4	0.01		0.00			0.00		0.00		0.00		0.05	7.55	
21	12031.2	0.01		0.50			0.00		0.00		0.00		0.06	7.61	
22	11724.2	0.01		0.00			0.00		0.00		0.00		0.04	7.49	
23	14642	0.01		0.00			0.00		0.00		0.00		0.02	7.50	
24	13392.1	0.01		0.00			0.00		0.00		0.00		0.00	7.54	
25	11468.2	0.01		0.00			0.00		0.00		0.00		0.02	7.56	
26	15048.2	0.02		0.00		4.50	0.56	14.00	1.76	0.09	0.01	7.00	0.03	7.85	
27	13690.1	0.01		0.10			0.00		0.00		0.00		0.00	7.53	
28	13357.9	0.01		0.30			0.00		0.00		0.00		0.01	7.65	
29	13852.7	0.01		0.60			0.00		0.00		0.00		0.03	7.96	
30	14399.1	0.01		0.00			0.00		0.00		0.00		0.01	7.71	
31	15412.5	0.02		0.00			0.00		0.00		0.00		0.00	7.86	
Avg	12637	0.01		Total Rain	Total Snow	6.15	0.68	24.00	2.63	0.11	0.01	Mean	0.03	Min	Max
Max	17880	0.02		6.60	0.00	7.80	0.81	34.00	3.51	0.12	0.01	3.74	0.13	7.18	7.96

D.O.
mg/l
6.78
7.81
7.42
9.36
8.40
8.84
7.20
9.30
9.50
8.36
9.33
9.03
9.10
9.74
9.30
9.44
7.85
7.70
7.90
9.36
8.37
8.74
8.28
7.90
6.48
8.42
7.22
7.34
8.51
8.24
7.38
Min
6.48

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jun-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	15695.6	0.02					0.00		0.00		0.00		0.04	7.36		7.38
2	14983.8	0.01		0.50			0.00		0.00		0.00		0.09	7.40		7.34
3	18890.3	0.02		0.20			0.00		0.00		0.00		0.02	7.45		7.69
4	15571.2	0.02					0.00		0.00		0.00		0.00	7.55		7.73
5	15290	0.02					0.00		0.00		0.00		0.00	7.55		8.25
6	14088.2	0.01					0.00		0.00		0.00		0.05	7.42		8.33
7	15307.2	0.02					0.00		0.00		0.00		0.02	7.36		8.33
8	11374	0.01		0.50		10.90	1.03	28.00	2.66	0.16	0.02	3.00	0.11	7.10		7.88
9	15376.8	0.02		1.10			0.00		0.00		0.00		0.09	7.46		8.39
10	15307.9	0.02					0.00		0.00		0.00		0.03	7.49		8.55
11	14930	0.01		0.01			0.00		0.00		0.00		0.06	7.60		9.13
12	15127.4	0.02		0.40			0.00		0.00		0.00		0.00	7.79		8.92
13	13891.4	0.01					0.00		0.00		0.00		0.00	7.73		8.88
14	14727.7	0.01					0.00		0.00		0.00		0.00	7.80		8.89
15	14332.7	0.01				5.20	0.62	11.00	1.31	0.05	0.01	2.00	0.02	7.85		8.78
16	8758.4	0.01		0.20			0.00		0.00		0.00		0.02	7.88		8.34
17	15798.9	0.02					0.00		0.00		0.00		0.00	7.97		8.19
18	11936.8	0.01					0.00		0.00		0.00		0.08	7.43		8.34
19	13161.6	0.01					0.00		0.00		0.00		0.00	7.67		7.75
20	12519.3	0.01					0.00		0.00		0.00		0.04	7.85		8.84
21	13817.4	0.01					0.00		0.00		0.00		0.04	8.00		8.38
22	14437.3	0.01					0.00		0.00		0.00		0.05	7.77		8.07
23	16588.5	0.02		0.90			0.00		0.00		0.00		0.05	7.81		8.60
24	15698.8	0.02					0.00		0.00		0.00		0.04	7.75		8.38
25	15196.4	0.02					0.00		0.00		0.00		0.02	7.65		8.32
26	13378	0.01					0.00		0.00		0.00		0.17	7.75		8.49
27	15888.9	0.02		0.80			0.00		0.00		0.00		0.01	7.61		7.98
28	13425.2	0.01					0.00		0.00		0.00		0.00	7.64		8.51
29	13334.2	0.01					0.00		0.00		0.00		0.04	7.82		9.02
30	17050.1	0.02					0.00		0.00		0.00		0.06	7.38		8.50
		0.00					0.00		0.00		0.00					
Avg	14529	0.01		Total Rain	Total Snow	8.05	0.83	19.50	1.99	0.11	0.01	Mean	0.04	Min	Max	Min
Max	18890.3	0.02		4.61	0.00	10.90	1.03	28.00	2.66	0.16	0.02	2.45	0.17	7.10	8.00	7.34

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jul-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	20255.8	0.02					0.00		0.00		0.00		0.00	7.63		8.23
2	12197.4	0.01		0.50			0.00		0.00		0.00		0.21	7.54		7.56
3	12228.3	0.01		0.20			0.00		0.00		0.00		0.01	7.83		8.14
4	13611.7	0.01					0.00		0.00		0.00		0.04	7.78		8.91
5	15604.3	0.02					0.00		0.00		0.00		0.01	7.66		8.46
6	15026.1	0.02				2.50	0.31	19.00	2.38	0.09	0.01	2.00	0.00	7.87		8.03
7	14862.5	0.01					0.00		0.00		0.00		0.07	7.90		8.13
8	13087.8	0.01		0.50			0.00		0.00		0.00		0.00	7.92		8.20
9	14417.7	0.01		1.10			0.00		0.00		0.00		0.00	8.06		7.92
10	14256.2	0.01					0.00		0.00		0.00		0.00	8.03		8.14
11	14156.3	0.01		0.01			0.00		0.00		0.00		0.00	7.86		8.22
12	12498.5	0.01		0.40		3.70	0.39	8.00	0.83	0.14	0.01	3.00	0.00	7.66		8.01
13	13338.5	0.01					0.00		0.00		0.00		0.00	7.86		8.23
14	13505.8	0.01					0.00		0.00		0.00		0.02	7.78		8.15
15	13932.3	0.01					0.00		0.00		0.00		0.00	8.04		7.64
16	13636.4	0.01		0.20			0.00		0.00		0.00		0.11	7.62		8.14
17	14134.0	0.01					0.00		0.00		0.00		0.09	7.63		8.15
18	15114.0	0.02					0.00		0.00		0.00		0.11	7.56		8.02
19	14212.8	0.01					0.00		0.00		0.00		0.06	7.87		8.11
20	15783.9	0.02					0.00		0.00		0.00		0.03	7.80		7.97
21	14264.3	0.01					0.00		0.00		0.00		0.19	7.50		7.79
22	14450.9	0.01					0.00		0.00		0.00		0.01	7.82		7.59
23	12850.1	0.01		0.90			0.00		0.00		0.00		0.02	7.64		7.62
24	14501.7	0.01					0.00		0.00		0.00		0.18	7.89		6.31
25	14676.0	0.01					0.00		0.00		0.00		0.11	7.88		7.88
26	16178.6	0.02					0.00		0.00		0.00		0.00	7.44		7.75
27	15767.5	0.02		0.80			0.00		0.00		0.00		0.00	7.39		7.88
28	15587.5	0.02					0.00		0.00		0.00		0.02	7.65		7.65
29	12900.0	0.01					0.00		0.00		0.00		0.10	7.70		7.10
30	12726.8	0.01					0.00		0.00		0.00		0.00	7.99		7.28
31	12193.5	0.01					0.00		0.00		0.00		0.03	7.80		7.44
Avg	14257	0.01		Total Rain	Total Snow	3.10	0.35	13.50	1.61	0.12	0.01	Mean	0.05	Min	Max	Min
Max	20255.8	0.02		4.61	0.00	3.70	0.39	19.00	2.38	0.14	0.01	2.45	0.21	7.39	8.06	6.31

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Aug-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	13333.50	0.01		0.25			0.00		0.00		0.00		0.05	7.45		8.20
2	14024.70	0.01		0.05			0.00		0.00		0.00		0.15	7.50		8.02
3	13800.10	0.01		0.00		6.60	0.76	7.00	0.81	0.25	0.03	36.00	0.02	7.75		8.38
4	12332.20	0.01		0.00			0.00		0.00		0.00		0.13	7.20		6.61
5	13749.00	0.01		0.05			0.00		0.00		0.00		0.06	7.12		7.88
6	11837.40	0.01		0.00			0.00		0.00		0.00		0.01	7.10		9.75
7	12902.50	0.01		0.05			0.00		0.00		0.00		0.01	7.70		9.32
8	10823.60	0.01		0.05			0.00		0.00		0.00		0.07	7.25		7.04
9	15859.90	0.02		0.00			0.00		0.00		0.00		0.04	7.41		7.78
10	16934.00	0.02		0.80			0.00		0.00		0.00		0.05	7.87		8.34
11	14039.00	0.01		0.00			0.00		0.00		0.00		0.07	7.78		7.62
12	12522.40	0.01		0.00			0.00		0.00		0.00		0.03	7.75		8.31
13	12492.20	0.01		0.00			0.00		0.00		0.00		0.52	7.50		9.30
14	12278.90	0.01		0.00			0.00		0.00		0.00		0.05	7.61		8.31
15	15880.50	0.02		0.00			0.00		0.00		0.00		0.19	7.66		8.34
16	14335.60	0.01		0.20			0.00		0.00		0.00		0.01	7.78		8.44
17	13772.00	0.01		0.00		2.00	0.23	13.00	1.49	0.25	0.03	2.00	0.03	7.75		5.79
18	13164.80	0.01		0.00			0.00		0.00		0.00		0.00	7.55		5.51
19	14357.70	0.01		0.00			0.00		0.00		0.00		0.08	7.66		5.24
20	11767.80	0.01		0.00			0.00		0.00		0.00		0.02	7.49		5.66
21	12646.40	0.01		0.00			0.00		0.00		0.00		0.08	7.58		6.43
22	15002.00	0.02		0.00			0.00		0.00		0.00		0.46	7.32		8.45
23	12230.30	0.01		0.55			0.00		0.00		0.00		0.03	7.43		7.07
24	16892.70	0.02		0.00			0.00		0.00		0.00		0.05	7.43		7.33
25	14718.60	0.01		0.00			0.00		0.00		0.00		0.31	7.92		5.47
26	13028.00	0.01		0.00			0.00		0.00		0.00		0.00	8.15		7.10
27	16662.20	0.02		0.00			0.00		0.00		0.00		0.06	7.69		5.36
28	15370.30	0.02		0.00			0.00		0.00		0.00		0.03	7.52		5.42
29	14034.90	0.01		0.00			0.00		0.00		0.00		0.16	7.34		8.20
30	14923.70	0.01		0.00			0.00		0.00		0.00		0.56	7.12		8.13
31	14925.00	0.01		1.75			0.00		0.00		0.00		0.02	7.10		8.68
Avg	13892	0.01		Total Rain	Total Snow	4.30	0.49	10.00	1.15	0.25	0.03	Mean	0.11	Min	Max	Min
Max	16934	0.02		3.75	0.00	6.60	0.76	13.00	1.49	0.25	0.03	8.49	0.56	7.10	8.15	5.24

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Sep-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	11868.3	0.01		0.00			0.00		0.00		0.00		0.03	7.82		8.08
2	16122.2	0.02		0.00			0.00		0.00		0.00		0.02	7.60		8.50
3	14019.1	0.01		0.00			0.00		0.00		0.00		0.02	7.72		9.04
4	12508.2	0.01		0.00			0.00		0.00		0.00		0.02	7.91		8.82
5	13110.7	0.01		0.00			0.00		0.00		0.00		0.00	7.90		8.68
6	17507.5	0.02		2.25			0.00		0.00		0.00		0.16	7.68		8.15
7	14066.6	0.01		0.30			0.00		0.00		0.00		0.70	7.56		10.15
8	15109	0.02		0.60			0.00		0.00		0.00		0.07	8.05		8.24
9	11433.2	0.01		0.00			0.00		0.00		0.00		0.05	7.99		10.44
10	14407.5	0.01		0.00			0.00		0.00		0.00		0.13	8.00		10.29
11	14890.8	0.01		0.25			0.00		0.00		0.00		0.00	7.61		9.45
12	12832.5	0.01		0.50			0.00		0.00		0.00		0.04	7.61		8.89
13	12566.5	0.01		0.00			0.00		0.00		0.00		0.02	7.77		8.52
14	11518	0.01		0.00		4.00	0.38	1.00	0.10	0.06	0.01	2.00	0.76	7.45		8.42
15	13450.9	0.01		0.00			0.00		0.00		0.00		0.20	7.77		8.22
16	10269.2	0.01		0.00			0.00		0.00		0.00		0.02	8.02		8.50
17	13011.3	0.01		0.00			0.00		0.00		0.00		0.02	7.86		6.59
18	13694.9	0.01		0.00			0.00		0.00		0.00		0.01	8.19		5.98
19	12688.4	0.01		0.00			0.00		0.00		0.00		0.08	7.93		8.54
20	13931	0.01		0.00			0.00		0.00		0.00		0.06	8.04		8.60
21	14502.9	0.01		0.40		2.00	0.24	13.00	1.57	0.14	0.02	5.00	0.04	8.00		8.52
22	14455.8	0.01		0.10			0.00		0.00		0.00		0.03	7.82		8.34
23	15423	0.02		0.00			0.00		0.00		0.00		0.04	8.02		8.64
24	12946.4	0.01		0.00			0.00		0.00		0.00		0.00	7.96		8.46
25	15318.3	0.02		0.00			0.00		0.00		0.00		0.00	7.82		8.50
26	14040.8	0.01		0.40			0.00		0.00		0.00		0.02	7.95		8.86
27	14999.9	0.01		0.00			0.00		0.00		0.00		0.05	7.52		8.94
28	13279.2	0.01		0.00			0.00		0.00		0.00		0.04	7.73		9.10
29	19522.9	0.02		0.00			0.00		0.00		0.00		0.08	7.56		9.51
30	16266	0.02		0.00			0.00		0.00		0.00		0.06	7.63		9.67
31																
Avg	13541	0.01		Total Rain	Total Snow	3.00	0.31	7.00	0.83	0.10	0.01	Mean	0.09	Min	Max	Min
Max	19523	0.02		4.80	0.00	4.00	0.38	13.00	1.57	0.14	0.02	3.16	0.76	7.45	8.19	5.98

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Oct-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	gpd	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	17565.8	0.02		0.30			0.00		0.00		0.00		0.00	7.59		9.24
2	17779.8	0.02		0.55			0.00		0.00		0.00		0.00	7.65		9.18
3	16798.8	0.02		0.40			0.00		0.00		0.00		0.05	7.63		9.21
4	16873.9	0.02		0.30			0.00		0.00		0.00		0.01	7.66		9.12
5	14475.8	0.01		2.45			0.00		0.00		0.00		0.04	7.65		9.42
6	16646.8	0.02		0.00			0.00		0.00		0.00		0.04	7.63		9.41
7	14676	0.01		0.00			0.00		0.00		0.00		0.03	7.61		8.95
8	15232.6	0.02		0.00			0.00		0.00		0.00		0.02	7.92		9.37
9	13346.7	0.01		0.00			0.00		0.00		0.00		0.01	7.96		9.40
10	12415.9	0.01		0.00			0.00		0.00		0.00		0.04	7.90		8.48
11	13170.9	0.01		0.00			0.00		0.00		0.00		0.02	7.98		9.77
12	12893.3	0.01		0.00		2.60	0.28	3.00	0.32	0.06	0.01	2.00	0.04	7.86		9.57
13	14738.5	0.01		0.40			0.00		0.00		0.00		0.04	7.97		9.48
14	13794.4	0.01		0.00			0.00		0.00		0.00		0.00	8.38		8.52
15	11853.2	0.01		0.00			0.00		0.00		0.00		0.02	6.57		9.32
16	14256.5	0.01		0.00			0.00		0.00		0.00		0.02	6.76		7.05
17	14283.3	0.01		0.00			0.00		0.00		0.00		0.04	7.35		9.38
18	13512.6	0.01		0.00		3.00	0.34	5.00	0.56	0.06	0.01	10.00	0.03	7.57		9.31
19	15185.4	0.02		0.00			0.00		0.00		0.00		0.03	7.39		9.84
20	14905.1	0.01		0.00			0.00		0.00		0.00		0.05	7.65		9.88
21	13093.1	0.01		0.00			0.00		0.00		0.00		0.06	7.55		10.08
22	12770.5	0.01		0.00			0.00		0.00		0.00		0.03	7.90		9.94
23	12848.3	0.01		0.00			0.00		0.00		0.00		0.01	7.87		9.72
24	12878.2	0.01		0.70			0.00		0.00		0.00		0.07	7.60		9.64
25	14139.2	0.01		0.25			0.00		0.00		0.00		0.01	7.81		9.38
26	13336.9	0.01		0.30			0.00		0.00		0.00		0.06	7.68		9.05
27	11964.6	0.01		0.20			0.00		0.00		0.00		0.03	7.75		9.31
28	12356.6	0.01		0.00			0.00		0.00		0.00		0.02	7.75		9.83
29	12471.2	0.01		0.00			0.00		0.00		0.00		0.02	7.69		8.29
30	14301.2	0.01		0.00			0.00		0.00		0.00		0.00	8.15		9.09
31	13325.8	0.01		0.00			0.00		0.00		0.00		0.02	7.65		9.97
Avg	14125.51	0.01		Total Rain	Total Snow	2.80	0.31	4.00	0.44	0.06	0.01	Mean	0.03	Min	Max	Min
Max	17779.8	0.02		5.85	0.00	3.00	0.34	5.00	0.56	0.06	0.01	4.47	0.07	6.57	8.38	7.05

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Nov-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	13855.3	0.01		0.40			0.00		0.00		0.00		0.05	7.73		9.44
2	12645.6	0.01		0.00		4.70	0.50	1.00	0.11	0.05	0.01	16.00	0.04	7.73		9.07
3	13343.5	0.01		0.00			0.00		0.00		0.00		0.02	7.69		9.81
4	12714.5	0.01		0.00			0.00		0.00		0.00		0.02	8.16		10.31
5	8925.9	0.01		0.00			0.00		0.00		0.00		0.01	7.87		11.10
6	11258.5	0.01		0.25			0.00		0.00		0.00		0.01	7.75		9.18
7	16016.8	0.02		0.00		14.40	1.92	14.00	1.87	0.05	0.01	2.00	0.03	7.66		8.94
8	16827	0.02		0.00			0.00		0.00		0.00		0.07	7.65		8.88
9	14733.7	0.01		0.00			0.00		0.00		0.00		0.02	7.67		9.67
10	12088.8	0.01		0.00			0.00		0.00		0.00		0.04	7.56		9.84
11	14463.3	0.01		0.00			0.00		0.00		0.00		0.21	7.65		7.20
12	12218.6	0.01		1.50			0.00		0.00		0.00		0.05	7.61		6.91
13	13372.1	0.01		0.20			0.00		0.00		0.00		0.03	7.75		7.58
14	15612.7	0.02		0.00			0.00		0.00		0.00		0.02	7.67		10.86
15	13850.2	0.01		0.00	2.00		0.00		0.00		0.00		0.02	7.66		10.55
16	18242.8	0.02		0.00			0.00		0.00		0.00		0.05	7.67		10.24
17	14571	0.01		0.00			0.00		0.00		0.00		0.14	7.62		9.86
18	14297.4	0.01		0.85			0.00		0.00		0.00		0.02	7.70		9.84
19	13867.7	0.01		0.00			0.00		0.00		0.00		0.01	7.90		10.34
20	13367.2	0.01		0.00			0.00		0.00		0.00		0.06	7.88		10.33
21	14673.7	0.01		0.00			0.00		0.00		0.00		0.05	7.85		11.92
22	12685.2	0.01		0.00			0.00		0.00		0.00		0.01	7.80		11.62
23	14804.9	0.01		0.00			0.00		0.00		0.00		0.01	7.85		11.84
24	13402	0.01		0.00			0.00		0.00		0.00		0.00	7.74		10.47
25	12930.8	0.01		0.20			0.00		0.00		0.00		0.03	7.98		10.47
26	12032	0.01		0.10			0.00		0.00		0.00		0.01	7.71		9.42
27	12205.3	0.01		0.00			0.00		0.00		0.00		0.02	7.56		9.79
28	15723.1	0.02		0.80			0.00		0.00		0.00		0.01	7.77		10.95
29	13057.3	0.01		0.00			0.00		0.00		0.00		0.02	7.66		11.43
30	15371.3	0.02		0.60			0.00		0.00		0.00		0.04	7.73		11.33
31																
Avg	13328	0.01		Total Rain	Total Snow	9.55	1.21	7.50	0.99	0.05	0.01	Mean	0.04	Min	Max	Min
Max	18243	0.02		4.90	2.00	14.40	1.92	14.00	1.87	0.05	0.01	5.66	0.21	7.56	8.16	6.91

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Dec-22

PERMIT NUMBER: PA0064068

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	14858.4	0.01		0.80	0.00		0.00		0.00		0.00		0.02	7.46		11.56
2	14149.3	0.01		0.00	0.00		0.00		0.00		0.00		0.11	7.49		11.73
3	13231.8	0.01		0.45	0.00		0.00		0.00		0.00		0.09	7.47		10.59
4	14099.2	0.01		0.20	0.00		0.00		0.00		0.00		0.00	7.55		10.94
5	12946.2	0.01		0.00	0.00		0.00		0.00		0.00		0.07	7.65		9.35
6	13081.4	0.01		0.10	0.00		0.00		0.00		0.00		0.00	7.80		9.97
7	16234.7	0.02		0.75	0.00	5.10	0.69	4.00	0.54	0.14	0.02	2.00	0.04	7.75		11.17
8	14671.5	0.01		0.10	0.00		0.00		0.00		0.00		0.03	7.68		8.83
9	13406.4	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.85		10.60
10	11866	0.01		0.00	0.00		0.00		0.00		0.00		0.01	7.84		11.26
11	13514.2	0.01		0.00	0.00		0.00		0.00		0.00		0.02	7.80		11.56
12	11918.5	0.01		0.20	0.00		0.00		0.00		0.00		0.06	7.75		10.32
13	13807.8	0.01		0.00	0.00	3.70	0.43	7.00	0.81	0.14	0.02	5.00	0.06	7.86		9.60
14	18675.3	0.02		0.00	0.00		0.00		0.00		0.00		0.01	7.80		9.25
15	15148.3	0.02		0.50	0.00		0.00		0.00		0.00		0.06	7.67		10.60
16	13940	0.01		1.70	0.00		0.00		0.00		0.00		0.04	7.74		9.46
17	14440.4	0.01		0.00	0.25		0.00		0.00		0.00		0.02	7.41		9.92
18	13351.7	0.01		0.00	0.00		0.00		0.00		0.00		0.00	7.52		9.14
19	12110.4	0.01		0.00	0.00		0.00		0.00		0.00		0.06	7.93		10.46
20	13963.7	0.01		0.00	0.00		0.00		0.00		0.00		0.03	7.83		10.64
21	14192	0.01		0.00	0.00		0.00		0.00		0.00		0.02	7.86		10.64
22	11659.9	0.01		2.30	0.00		0.00		0.00		0.00		0.04	7.83		7.65
23	23898.8	0.02		0.50	0.00		0.00		0.00		0.00		0.00	7.85		10.20
24	19661.3	0.02		0.00	0.00		0.00		0.00		0.00		0.02	7.70		12.65
25	15461.7	0.02		0.00	0.00		0.00		0.00		0.00		0.05	7.71		13.12
26	14286.5	0.01		0.00	0.00		0.00		0.00		0.00		0.03	7.88		13.13
27	14882.7	0.01		0.00	0.00		0.00		0.00		0.00		0.07	7.83		11.38
28	10432.1	0.01		0.00	0.00		0.00		0.00		0.00		0.05	7.95		11.15
29	12674.1	0.01		0.00	0.00		0.00		0.00		0.00		0.03	7.94		10.67
30	12325.8	0.01		0.00	0.00		0.00		0.00		0.00		0.01	8.19		11.03
31	11603	0.01		0.00	0.00		0.00		0.00		0.00		0.04	8.17		10.02
Avg	14209	0.01		Total Rain	Total Snow	4.40	0.56	5.50	0.67	0.14	0.02	Mean	0.04	Min	Max	Min
Max	23899	0.02		7.60	0.25	5.10	0.69	7.00	0.81	0.14	0.02	3.16	0.11	7.41	8.19	7.65

Influent Results

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Year:** 2022
PERMIT NUMBER: PA0064068

Month	Flow (MGD)	BOD	BOD (lbs.)	COD	COD (lbs.)	TSS	TSS (lbs.)	Total NH3	Total NH3 (lbs	Total P	Total P (lbs.)
January	0.009	419.00	31.45	721.00	54.12	327.00	24.54	36.10	2.71	5.99	0.45
	0.009	368.00	27.62			287.00	21.54				
AVG.		**393.50**	**29.54**	**721.00**	**54.12**	**307.00**	**23.04**	**36.10**	**2.71**	**5.99**	**0.45**
MAX.		**419.00**	**31.45**	**721.00**	**54.12**	**327.00**	**24.54**	**36.10**	**2.71**	**5.99**	**0.45**
February	0.01	417.00	34.78			240.00	20.02				
	0.01	617.00	51.46	875.00	72.98	417.00	34.78	41.80	3.49	7.26	0.61
AVG.		**517.00**	**43.12**	**875.00**	**72.98**	**328.50**	**27.40**	**41.80**	**3.49**	**7.26**	**0.61**
MAX.		**617.00**	**51.46**	**875.00**	**72.98**	**417.00**	**34.78**	**41.80**	**3.49**	**7.26**	**0.61**
March	0.012	305.00	30.52	542.00	54.24	154.00	15.41	36.10	3.61	6.30	0.63
	0.013	236.00	25.59			206.00	22.33		0.00		0.00
AVG.		**270.50**	**28.06**	**542.00**	**54.24**	**276.38**	**24.98**	**36.10**	**1.81**	**6.30**	**0.32**
MAX.		**305.00**	**30.52**	**542.00**	**54.24**	**206.00**	**22.33**	**36.10**	**3.61**	**6.30**	**0.63**
April	0.013	398.00	42.49	725.00	77.40	317.00	33.84	30.90	3.30	5.38	0.57
	0.011	386.00	34.77			323.00	29.09				
AVG.	**0.150**	**386.00**	**34.77**			**323.00**	**29.09**	**30.90**	**3.30**	**5.38**	**0.57**
MAX.		**398.00**	**42.49**	**725.00**	**77.40**	**323.00**	**33.84**	**30.90**	**3.30**	**5.38**	**0.57**
May	0.010	382.00	31.86		0.00	370.00	30.86		0.00		0.00
	0.020	209.00	34.86	460.00	76.73	163.00	27.19	33.70	5.62	4.60	0.77
AVG.		**295.50**	**33.36**	**460.00**	**38.36**	**266.50**	**29.02**	**33.70**	**2.81**	**4.60**	**0.38**
MAX.		**382.00**	**34.86**	**460.00**	**76.73**	**370.00**	**30.86**	**33.70**	**5.62**	**4.60**	**0.77**
June	0.010	301.00	25.10		0.00	230.00	19.18		0.00		0.00
	0.010	315.00	26.27	778.00	64.89	387.00	32.28	31.50	2.63	6.37	0.53
AVG.		**308.00**	**25.69**	**778.00**	**32.44**	**308.50**	**25.73**	**31.50**	**1.31**	**6.37**	**0.27**
MAX.		**315.00**	**26.27**	**778.00**	**64.89**	**387.00**	**32.28**	**31.50**	**2.63**	**6.37**	**0.53**
July	0.010	214.00	17.85		0.00	274.00	22.85		0.00		0.00
	0.020	263.00	43.87	684.00	114.09	323.00	53.88	26.80	4.47	4.92	0.82
AVG.		**238.50**	**30.86**	**684.00**	**57.05**	**298.50**	**38.36**	**26.80**	**2.24**	**4.92**	**0.41**
MAX.		**263.00**	**43.87**	**684.00**	**114.09**	**323.00**	**53.88**	**26.80**	**4.47**	**4.92**	**0.82**
August	0.010	468.00	39.03	591.00	49.29	320.00	26.69	33.40	2.79	5.25	0.44
	0.010	332.00	27.69			320.00	26.69				
AVG.		**332.00**	**27.69**	**591.00**	**49.29**	**320.00**	**26.69**	**33.40**	**2.79**	**5.25**	**0.44**
MAX.		**468.00**	**39.03**	**591.00**	**49.29**	**320.00**	**26.69**	**33.40**	**2.79**	**5.25**	**0.44**
September	0.010	370.00	30.86	604.00	50.37	307.00	25.60	37.60	3.14	5.73	0.48
	0.010	399.00	33.28			263.00	21.93				
AVG.		**384.50**	**32.07**	**604.00**	**50.37**	**285.00**	**23.77**	**37.60**	**3.14**	**5.73**	**0.48**
MAX.		**399.00**	**33.28**	**604.00**	**50.37**	**307.00**	**25.60**	**37.60**	**3.14**	**5.73**	**0.48**
October	0.010	270.00	22.52			3.00	0.25				
	0.010	238.00	19.85	529.00	44.12	200.00	16.68	34.40	2.87	5.17	0.43
AVG.		**254.00**	**21.18**	**529.00**	**44.12**	**101.50**	**8.47**	**34.40**	**2.87**	**5.17**	**0.43**
MAX.		**270.00**	**22.52**	**529.00**	**44.12**	**200.00**	**16.68**	**34.40**	**2.87**	**5.17**	**0.43**
November	0.010	383.00	31.94	574.00	47.87	272.00	22.68	31.90	2.66	5.66	0.47
	0.020	318.00	53.04			162.00	27.02				
AVG.		**350.50**	**42.49**	**574.00**	**47.87**	**217.00**	**24.85**	**31.90**	**2.66**	**5.66**	**0.47**
MAX.		**383.00**	**53.04**	**574.00**	**47.87**	**272.00**	**27.02**	**31.90**	**2.66**	**5.66**	**0.47**
December	0.020	277.00	46.20			133.00	22.18				
	0.010	153.00	12.76	404.00	33.69	50.00	4.17	42.20	3.52	5.26	0.44
AVG.		**215.00**	**29.48**	**404.00**	**33.69**	**91.50**	**13.18**	**42.20**	**3.52**	**5.26**	**0.44**
MAX.		**277.00**	**46.20**	**404.00**	**33.69**	**133.00**	**22.18**	**42.20**	**3.52**	**5.26**	**0.44**
Annual Average		328.75	31.52	614.73	48.59	260.28	24.55	34.70	2.72	5.66	0.44

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Jan-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	12496.1	0.012		0.30	0.00		0.00		0.00		0.00		0.06	7.75		10.76
2	12949	0.013		0.00	0.00		0.00		0.00		0.00		0.02	7.82		10.67
3	14822.2	0.015		0.75	0.00		0.00		0.00		0.00		0.01	7.44		10.94
4	12992.4	0.013		0.25	0.00	5.00	0.54	10.00	1.08	0.07	0.01	2.00	0.01	8.00		11.01
5	16654.8	0.017		0.01	0.00		0.00		0.00		0.00		0.05	8.07		10.66
6	13181.6	0.013		0.40	0.00		0.00		0.00		0.00		0.03	7.53		8.98
7	12663.3	0.013		0.10	0.00		0.00		0.00		0.00		0.06	7.00		9.11
8	21633.3	0.022		0.00	0.00		0.00		0.00		0.00		0.01	6.96		8.30
9	12674.1	0.013		0.00	0.10		0.00		0.00		0.00		0.08	7.45		8.49
10	11847.5	0.012		0.00	0.00	4.20	0.41	8.00	0.79	0.12	0.01	2.00	0.07	7.22		10.28
11	16159.2	0.016		0.00	0.00		0.00		0.00		0.00		0.08	7.41		9.06
12	13653.5	0.014		0.10	0.10		0.00		0.00		0.00		0.04	7.51		10.98
13	13265	0.013		0.75	0.00		0.00		0.00		0.00		0.03	7.14		11.53
14	14074.7	0.014		0.00	0.00		0.00		0.00		0.00		0.00	7.52		11.31
15	13910.6	0.014		0.00	0.00		0.00		0.00		0.00		0.02	7.44		11.57
16	15991.9	0.016		0.00	0.00		0.00		0.00		0.00		0.02	7.62		10.95
17	15587.6	0.016		0.00	0.00		0.00		0.00		0.00		0.01	7.51		9.86
18	14435.4	0.014		0.01	0.00		0.00		0.00		0.00		0.00	7.65		11.87
19	15663.1	0.016		0.35	0.00		0.00		0.00		0.00		0.00	7.67		9.67
20	15629.2	0.016		0.45	0.00		0.00		0.00		0.00		0.10	7.78		8.88
21	14070.3	0.014		0.00	0.10		0.00		0.00		0.00		0.02	7.71		10.26
22	15067.3	0.015		0.00	0.00		0.00		0.00		0.00		0.04	7.79		10.80
23	16862.3	0.017		0.30	0.10		0.00		0.00		0.00		0.01	7.88		10.92
24	16651	0.017		0.00	0.00		0.00		0.00		0.00		0.04	7.42		11.01
25	16839.3	0.017		0.00	0.00		0.00		0.00		0.00		0.03	7.67		11.65
26	16980.7	0.017		0.75	2.00		0.00		0.00		0.00		0.04	7.80		10.98
27	14539.2	0.015		0.00	0.00		0.00		0.00		0.00		0.01	7.69		11.03
28	14679	0.015		0.00	0.00		0.00		0.00		0.00		0.02	7.68		10.77
29	13093.2	0.013		0.00	0.00		0.00		0.00		0.00		0.00	7.84		10.72
30	15796.1	0.016		0.00	0.00		0.00		0.00		0.00		0.01	7.63		12.09
31	15205.1	0.015		0.00	0.10		0.00		0.00		0.00		0.01	7.71		11.11
Avg	14840.903	0.015		Total Rain	Total Snow	4.60	0.48	9.00	0.94	0.10	0.01	Mean	0.03	Min	Max	Min
Max	21633.3	0.022		4.52	2.50	5.00	0.54	10.00	1.08	0.12	0.01	2.00	0.10	6.96	8.07	8.30

NUTRIENT MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority -Seider's Hill **Month of:** Jan-23

PERMIT NUMBER: PA0063096

	FLOW		Ammonia		Nitrate/Nitrite		TKN		Total N		Total P	
Day	Flow	GPD	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day
1	12496.1	0.012		0.000		0.00		0.00		0.00		0.00
2	12949	0.013		0.000		0.00		0.00		0.00		0.00
3	14822.2	0.015		0.000		0.00		0.00		0.00		0.00
4	12992.4	0.013		0.000		0.00		0.00		0.00		0.00
5	16654.8	0.017		0.000		0.00		0.00		0.00		0.00
6	13181.6	0.013		0.000		0.00		0.00		0.00		0.00
7	12663.3	0.013		0.000		0.00		0.00		0.00		0.00
8	21633.3	0.022		0.000		0.00		0.00		0.00		0.00
9	12674.1	0.013		0.000		0.00		0.00		0.00		0.00
10	11847.5	0.012	0.02	0.002	23.30	2.30	3.13	0.31	26.43	2.61	4.03	0.40
11	16159.2	0.016		0.000		0.00		0.00		0.00		0.00
12	13653.5	0.014		0.000		0.00		0.00		0.00		0.00
13	13265	0.013		0.000		0.00		0.00		0.00		0.00
14	14074.7	0.014		0.000		0.00		0.00		0.00		0.00
15	13910.6	0.014		0.000		0.00		0.00		0.00		0.00
16	15991.9	0.016		0.000		0.00		0.00		0.00		0.00
17	15587.6	0.016		0.000		0.00		0.00		0.00		0.00
18	14435.4	0.014		0.000		0.00		0.00		0.00		0.00
19	15663.1	0.016		0.000		0.00		0.00		0.00		0.00
20	15629.2	0.016		0.000		0.00		0.00		0.00		0.00
21	14070.3	0.014		0.000		0.00		0.00		0.00		0.00
22	15067.3	0.015		0.000		0.00		0.00		0.00		0.00
23	16862.3	0.017		0.000		0.00		0.00		0.00		0.00
24	16651	0.017		0.000		0.00		0.00		0.00		0.00
25	16839.3	0.017		0.000		0.00		0.00		0.00		0.00
26	16980.7	0.017		0.000		0.00		0.00		0.00		0.00
27	14539.2	0.015		0.000		0.00		0.00		0.00		0.00
28	14679	0.015		0.000		0.00		0.00		0.00		0.00
29	13093.2	0.013		0.000		0.00		0.00		0.00		0.00
30	15796.1	0.016		0.000		0.00		0.00		0.00		0.00
31	15205.1	0.015		0.000		0.00		0.00		0.00		0.00
Avg	14,841	0.01	0.02	0.002	23.30	2.30	3.13	0.31	26.43	2.61	4.03	0.40
Max	21,633	0.02	0.02	0.002	23.30	2.30	3.13	0.31	26.43	2.61	4.03	0.40
Monthly Load				0.06		71.37		9.59		80.96		12.34

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Feb-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	15858.1	0.016		0.00	0.00		0.00		0.00		0.00		0.03	7.70		11.77
2	14812.8	0.015		0.00	0.00		0.00		0.00		0.00		0.02	7.38		11.50
3	16242.4	0.016		0.00	0.10		0.00		0.00		0.00		0.01	8.11		11.67
4	14859.7	0.015		0.00	0.00		0.00		0.00		0.00		0.06	7.81		12.22
5	14689.6	0.015		0.00	0.00		0.00		0.00		0.00		0.02	7.17		11.63
6	13123.7	0.013		0.00	0.00		0.00		0.00		0.00		0.00	8.17		10.87
7	16195.2	0.016		0.00	0.00	4.80	0.65	4.00	0.54	0.07	0.01	2.00	0.07	8.29		11.50
8	15298.6	0.015		0.00	0.00		0.00		0.00		0.00		0.00	7.56		11.56
9	15064.2	0.015		0.10	0.00		0.00		0.00		0.00		0.00	8.05		9.20
10	11699.2	0.012		0.00	0.00		0.00		0.00		0.00		0.02	8.01		9.60
11	13951.9	0.014		0.00	0.00		0.00		0.00		0.00		0.04	7.99		9.69
12	12206.6	0.012		0.00	0.00		0.00		0.00		0.00		0.02	7.65		10.80
13	13748	0.014		0.00	0.00		0.00		0.00		0.00		0.02	8.02		8.92
14	15021.9	0.015		0.00	0.00	5.40	0.68	9.00	1.13	0.13	0.02	2.00	0.00	7.69		10.57
15	12776.4	0.013		0.00	0.00		0.00		0.00		0.00		0.18	7.88		10.77
16	13168.2	0.013		0.00	0.00		0.00		0.00		0.00		0.04	7.65		10.59
17	12170.5	0.012		0.10	0.00		0.00		0.00		0.00		0.04	7.81		11.58
18	14423.7	0.014		0.40	0.00		0.00		0.00		0.00		0.07	7.77		8.08
19	13732.9	0.014		0.00	0.00		0.00		0.00		0.00		0.06	7.73		8.62
20	11812.5	0.012		0.00	0.00		0.00		0.00		0.00		0.05	7.37		8.66
21	13612.2	0.014		0.30	0.00		0.00		0.00		0.00		0.02	7.43		7.95
22	14658	0.015		0.10	0.00		0.00		0.00		0.00		0.04	7.39		10.62
23	12828.7	0.013		0.30	0.00		0.00		0.00		0.00		0.06	7.05		10.25
24	12708.3	0.013		0.00	0.00		0.00		0.00		0.00		0.06	7.51		10.80
25	10784.4	0.011		0.00	0.00		0.00		0.00		0.00		0.01	7.99		12.14
26	13533.7	0.014		0.00	0.00		0.00		0.00		0.00		0.01	7.77		11.86
27	12246.9	0.012		0.00	0.00		0.00		0.00		0.00		0.06	7.68		10.59
28	16464	0.016		0.00	2.00		0.00		0.00		0.00		0.00	7.55		11.32
29																
30																
31																
Avg	12506.203	0.013		Total Rain	Total Snow	5.10	0.66	6.50	0.83	0.10	0.01	Mean	0.04	Min	Max	Min
Max	16464	0.016		1.30	2.10	5.40	0.68	9.00	1.13	0.13	0.02	2.00	0.18	7.05	8.29	7.95

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Mar-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH	
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.	
1	13922.3	0.014		0.00	0.00		0.00		0.00		0.00		0.05	7.51	
2	13488.1	0.013		0.00	0.10		0.00		0.00		0.00		0.04	7.60	
3	16185.4	0.016		0.00	0.00		0.00		0.00		0.00		0.06	7.63	
4	17893	0.018		1.60	0.00		0.00		0.00		0.00		0.05	7.65	
5	16293.7	0.016		0.00	0.00		0.00		0.00		0.00		0.04	7.58	
6	13272.4	0.013		0.00	0.00		0.00		0.00		0.00		0.00	7.32	
7	12039.1	0.012		0.00	0.25	3.90	0.39	3.00	0.30	0.13	0.01	2.00	0.03	7.94	
8	15477.5	0.015		0.00	0.00		0.00		0.00		0.00		0.01	7.31	
9	13744.5	0.014		0.00	0.00		0.00		0.00		0.00		0.01	7.42	
10	13528.5	0.014		0.00	0.00		0.00		0.00		0.00		0.02	7.73	
11	15901.5	0.016		0.30	0.50		0.00		0.00		0.00		0.04	7.47	
12	15756.5	0.016		0.00	0.00		0.00		0.00		0.00		0.05	7.38	
13	15303	0.015		0.00	0.00		0.00		0.00		0.00		0.10	7.22	
14	15476.3	0.015		0.00	0.25		0.00		0.00		0.00		0.08	7.46	
15	15882.2	0.016		0.00	0.00		0.00		0.00		0.00		0.04	7.21	
16	14447.4	0.014		0.00	0.00	7.00	0.84	9.00	1.08	0.12	0.01	2.00	0.01	7.03	
17	14194.5	0.014		0.15	0.00		0.00		0.00		0.00		0.02	7.49	
18	13571.9	0.014		0.00	0.00		0.00		0.00		0.00		0.03	7.25	
19	14781.6	0.015		0.00	0.00		0.00		0.00		0.00		0.04	7.78	
20	15536.8	0.016		0.00	0.00		0.00		0.00		0.00		0.00	7.81	
21	14956.9	0.015		0.00	0.00		0.00		0.00		0.00		0.19	7.89	
22	17763.8	0.018		0.00	0.00		0.00		0.00		0.00		0.05	7.72	
23	16091.9	0.016		0.50	0.00		0.00		0.00		0.00		0.10	7.56	
24	11514.7	0.012		0.10	0.00		0.00		0.00		0.00		0.02	7.71	
25	13954.1	0.014		0.30	0.00		0.00		0.00		0.00		0.00	8.29	
26	14142.6	0.014		0.30	0.00		0.00		0.00		0.00		0.02	7.89	
27	14689.6	0.015		0.00	0.00		0.00		0.00		0.00		0.03	7.06	
28	15202.1	0.015		0.10	0.00		0.00		0.00		0.00		0.02	7.10	
29	13373.1	0.013		0.00	0.00		0.00		0.00		0.00		0.04	7.53	
30	15001.6	0.015		0.01	0.00		0.00		0.00		0.00		0.00	8.03	
31	14273.6	0.014		0.00	0.00		0.00		0.00		0.00		0.00	8.36	
Avg	14763.232	0.015		Total Rain	Total Snow	5.45	0.62	6.00	0.69	0.13	0.01	Mean	0.04	Min	Max
Max	17893	0.018		3.36	1.10	7.00	0.84	9.00	1.08	0.13	0.01	2.00	0.19	7.03	8.36

D.O.
mg/l
12.26
10.60
10.43
8.85
9.86
9.61
10.25
9.38
10.78
10.43
10.66
10.91
11.31
10.96
10.84
10.38
10.34
10.24
9.62
10.22
11.19
10.04
10.84
10.67
10.16
9.50
9.42
10.04
10.14
9.33
10.15
Min
8.85

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Apr-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH	
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.	
1	15913.1	0.016		0.35			0.00		0.00		0.00		0.03	6.61	
2	16404	0.016		0.30			0.00		0.00		0.00		0.00	7.27	
3	14409.3	0.014		0.00			0.00		0.00		0.00		0.02	8.00	
4	14144.2	0.014		0.00		8.20	0.97	20.00	2.36	0.37	0.04	7.00	0.03	7.61	
5	12313.6	0.012		0.00			0.00		0.00		0.00		0.01	7.62	
6	13973.7	0.014		0.10			0.00		0.00		0.00		0.01	7.42	
7	15976.8	0.016		0.00			0.00		0.00		0.00		0.04	7.42	
8	12149.8	0.012		0.00			0.00		0.00		0.00		0.05	7.75	
9	13454.2	0.013		0.00			0.00		0.00		0.00		0.00	7.99	
10	12871	0.013		0.00			0.00		0.00		0.00		0.03	7.58	
11	13133.8	0.013		0.00			0.00		0.00		0.00		0.05	7.65	
12	14037.5	0.014		0.00		13.50	1.58	23.00	2.69	0.11	0.01	10.00	0.01	7.58	
13	10975.8	0.011		0.00			0.00		0.00		0.00		0.01	7.86	
14	11904.3	0.012		0.00			0.00		0.00		0.00		0.00	8.28	
15	13999.2	0.014		0.01			0.00		0.00		0.00		0.13	7.42	
16	13849	0.014		0.30			0.00		0.00		0.00		0.09	7.45	
17	16555	0.017		0.15			0.00		0.00		0.00		0.00	7.63	
18	19704.7	0.020		0.05			0.00		0.00		0.00		0.02	7.93	
19	14416.5	0.014		0.00			0.00		0.00		0.00		0.01	7.67	
20	12791.8	0.013		0.00			0.00		0.00		0.00		0.04	7.82	
21	11049	0.011		0.00			0.00		0.00		0.00		0.02	7.65	
22	13352.7	0.013		0.00			0.00		0.00		0.00		0.02	7.74	
23	13209	0.013		0.65			0.00		0.00		0.00		0.01	7.62	
24	12827.5	0.013		0.00			0.00		0.00		0.00		0.02	7.63	
25	12366	0.012		0.00			0.00		0.00		0.00		0.00	7.62	
26	13507.2	0.014		0.10			0.00		0.00		0.00		0.02	7.70	
27	11713	0.012		0.05			0.00		0.00		0.00		0.01	7.71	
28	12827.2	0.013		0.00			0.00		0.00		0.00		0.05	7.40	
29	12836.4	0.013		0.60			0.00		0.00		0.00		0.04	7.86	
30	16030.9	0.016		0.70			0.00		0.00		0.00		0.06	7.56	
31															
Avg	13312.781	0.013		Total Rain	Total Snow	10.85	1.27	21.50	2.53	0.24	0.03	Mean	0.03	Min	Max
Max	19704.7	0.020		3.36	0.00	13.50	1.58	23.00	2.69	0.37	0.04	8.37	0.13	6.61	8.28

D.O.
mg/l
6.13
8.08
10.18
9.52
9.51
9.25
9.55
8.83
8.48
9.71
9.50
9.14
9.18
7.96
6.53
7.58
10.08
9.41
9.62
9.40
9.33
10.11
9.18
9.24
9.46
9.21
9.14
9.20
7.77
7.27
Min
6.13

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** May-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	16998.6	0.017		1.50			0.00		0.00		0.00		0.01	7.59		9.01
2	15855.2	0.016		0.30			0.00		0.00		0.00		0.01	7.78		8.98
3	14136.6	0.014		0.05		10.20	1.20	20.00	2.36	0.28	0.03	2.00	0.01	7.70		8.93
4	12573.4	0.013		0.10			0.00		0.00		0.00		0.02	7.73		9.31
5	17831.6	0.018		0.00			0.00		0.00		0.00		0.04	7.36		9.07
6	16311.2	0.016		0.00			0.00		0.00		0.00		0.05	7.37		9.37
7	12308.5	0.012		0.00			0.00		0.00		0.00		0.02	7.30		9.30
8	11329.6	0.011		0.00			0.00		0.00		0.00		0.01	7.41		8.74
9	11090.7	0.011		0.00		10.80	1.00	19.00	1.76	0.20	0.02	3.00	0.01	7.75		8.83
10	11424.9	0.011		0.00			0.00		0.00		0.00		0.05	7.74		8.98
11	13709.4	0.014		0.00			0.00		0.00		0.00		0.02	7.53		8.93
12	11648.1	0.012		0.00			0.00		0.00		0.00		0.01	7.59		8.90
13	11182.6	0.011		0.00			0.00		0.00		0.00		0.00	7.20		7.23
14	11487.1	0.011		0.00			0.00		0.00		0.00		0.07	7.45		7.37
15	10832.4	0.011		0.00			0.00		0.00		0.00		0.00	7.58		9.13
16	13294.6	0.013		0.00			0.00		0.00		0.00		0.02	7.37		9.41
17	16890.3	0.017		0.00			0.00		0.00		0.00		0.01	7.33		9.28
18	15605.2	0.016		0.00			0.00		0.00		0.00		0.04	7.19		9.87
19	12725.4	0.013		0.00			0.00		0.00		0.00		0.02	7.69		9.88
20	10946.9	0.011		0.00			0.00		0.00		0.00		0.00	7.80		9.97
21	11410.6	0.011		0.20			0.00		0.00		0.00		0.05	8.04		10.27
22	12532.3	0.013		0.00			0.00		0.00		0.00		0.00	7.62		9.81
23	11740.3	0.012		0.00			0.00		0.00		0.00		0.02	7.97		9.68
24	13308.7	0.013		0.00			0.00		0.00		0.00		0.01	7.54		9.51
25	11089.7	0.011		0.00			0.00		0.00		0.00		0.00	7.47		9.10
26	12680.3	0.013		0.00			0.00		0.00		0.00		0.00	7.46		9.59
27	10522.8	0.011		0.00			0.00		0.00		0.00		0.03	7.51		9.47
28	9518.8	0.010		0.00			0.00		0.00		0.00		0.05	7.52		9.58
29	8521.1	0.009		0.00			0.00		0.00		0.00		0.04	7.51		9.38
30	11422.1	0.011		0.00			0.00		0.00		0.00		0.02	7.36		9.68
31	14093.4	0.014		0.00			0.00		0.00		0.00		0.03	7.61		9.04
Avg	12742.658	0.013		Total Rain	Total Snow	10.50	1.10	19.50	2.06	0.24	0.03	Mean	0.02	Min	Max	Min
Max	17831.6	0.018		2.15	0.00	10.80	1.20	20.00	2.36	0.28	0.03	2.45	0.07	7.19	8.04	7.23

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jun-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	9677.8	0.010		0.00			0.00		0.00		0.00		0.09	7.83		9.22
2	10390.5	0.010		0.00			0.00		0.00		0.00		0.01	7.78		8.44
3	11720.2	0.012		0.00			0.00		0.00		0.00		0.07	7.79		9.29
4	11186.7	0.011		0.20			0.00		0.00		0.00		0.02	7.90		9.11
5	12916.8	0.013		0.00			0.00		0.00		0.00		0.02	7.70		8.38
6	11362.2	0.011		0.00		4.90	0.46	5.00	0.47	0.05	0.00	2.00	0.03	7.69		8.57
7	11436.1	0.011		0.00			0.00		0.00		0.00		0.02	7.97		8.44
8	12209	0.012		0.00			0.00		0.00		0.00		0.03	7.86		9.05
9	11315	0.011		0.00			0.00		0.00		0.00		0.04	7.84		8.72
10	9070.8	0.009		0.00			0.00		0.00		0.00		0.06	7.64		6.07
11	11158.2	0.011		0.00			0.00		0.00		0.00		0.07	7.38		8.76
12	11190.4	0.011		0.00			0.00		0.00		0.00		0.04	7.51		8.32
13	4860.5	0.005		4.00			0.00		0.00		0.00		0.02	7.82		9.50
14	9264.8	0.009		0.20			0.00		0.00		0.00		0.02	7.88		9.23
15	9493.9	0.009		0.30			0.00		0.00		0.00		0.04	7.81		8.66
16	14902.1	0.015		0.00			0.00		0.00		0.00		0.02	7.97		8.76
17	16060.5	0.016		0.30			0.00		0.00		0.00		0.02	7.83		8.86
18	15115.4	0.015		0.00			0.00		0.00		0.00		0.07	7.72		8.78
19	13932.4	0.014		0.00			0.00		0.00		0.00		0.00	7.74		8.63
20	15092.8	0.015		0.00		3.90	0.49	7.00	0.88	0.03	0.00	2.00	0.00	7.55		8.64
21	21472.6	0.021		0.00			0.00		0.00		0.00		0.09	7.38		8.68
22	14281.1	0.014		0.10			0.00		0.00		0.00		0.05	7.36		8.75
23	15548.5	0.016		0.10			0.00		0.00		0.00		0.06	7.53		8.39
24	14829	0.015		0.40			0.00		0.00		0.00		0.02	7.50		9.04
25	14489.4	0.014		0.00			0.00		0.00		0.00		0.07	7.51		8.80
26	16412	0.016		0.20			0.00		0.00		0.00		0.02	7.82		7.81
27	16437.6	0.016		0.45			0.00		0.00		0.00		0.02	7.66		8.17
28	15921.1	0.016		0.35			0.00		0.00		0.00		0.07	7.53		9.43
29	15416.7	0.015		0.00			0.00		0.00		0.00		0.03	7.71		8.71
30	15099	0.015		0.00			0.00		0.00		0.00		0.05	7.58		8.59
31		0.000					0.00		0.00		0.00					
Avg	12653.648	0.013		Total Rain	Total Snow	4.40	0.48	6.00	0.68	0.04	0.00	Mean	0.04	Min	Max	Min
Max	21472.6	0.021		6.60	0.00	4.90	0.49	7.00	0.88	0.05	0.00	2.00	0.09	7.36	7.97	6.07

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Jul-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	15303	0.015		0.00			0.00		0.00		0.00		0.15	7.46		8.12
2	16636.4	0.017		1.00			0.00		0.00		0.00		0.13	7.50		8.32
3	15892.1	0.016		0.75			0.00		0.00		0.00		0.09	7.29		8.17
4	15089.6	0.015		0.05			0.00		0.00		0.00		0.00	8.41		8.26
5	14928.5	0.015		0.00			0.00		0.00		0.00		0.03	7.50		8.45
6	13264.5	0.013		0.00			0.00		0.00		0.00		0.12	7.72		8.20
7	13614.2	0.014		0.00			0.00		0.00		0.00		0.30	7.44		6.41
8	20779.5	0.021		0.10			0.00		0.00		0.00		0.03	7.78		11.73
9	16890.1	0.017		0.00			0.00		0.00		0.00		0.02	7.74		8.38
10	15252.8	0.015		0.65			0.00		0.00		0.00		0.04	7.80		6.18
11	15057	0.015		0.00			0.00		0.00		0.00		0.69	7.80		8.36
12	13502.4	0.014		0.00			0.00		0.00		0.00		0.01	7.87		8.40
13	13011.5	0.013		0.00		2.00	0.22	1.00	0.11	0.06	0.01	13.00	0.03	8.06		8.27
14	18605.2	0.019		0.00			0.00		0.00		0.00		0.09	7.82		8.35
15	16187.4	0.016		0.00			0.00		0.00		0.00		0.03	7.14		8.17
16	17727	0.018		0.80			0.00		0.00		0.00		0.01	7.32		10.80
17	17485.4	0.017		0.00			0.00		0.00		0.00		0.00	7.35		8.72
18	16203.4	0.016		0.35		2.00	0.27	1.00	0.14	0.05	0.01	2.00	0.32	7.96		7.79
19	18356	0.018		0.00			0.00		0.00		0.00		0.06	8.01		9.45
20	16234.8	0.016		0.00			0.00		0.00		0.00		0.11	7.92		9.82
21	21592.3	0.022		0.65			0.00		0.00		0.00		0.07	8.19		7.35
22	17218.4	0.017		0.00			0.00		0.00		0.00		0.03	8.06		7.73
23	17909.7	0.018		0.00			0.00		0.00		0.00		0.38	7.72		7.60
24	16572.7	0.017		0.25			0.00		0.00		0.00		0.14	7.40		8.05
25	20870	0.021		0.80			0.00		0.00		0.00		0.19	7.70		8.35
26	18924.1	0.019		0.25			0.00		0.00		0.00		0.02	7.39		8.06
27	12958.8	0.013		0.00			0.00		0.00		0.00		0.02	7.52		7.51
28	18560.9	0.019		0.00			0.00		0.00		0.00		0.03	7.51		7.73
29	16286.8	0.016		0.20			0.00		0.00		0.00		1.04	7.41		7.89
30	16420.6	0.016		0.25			0.00		0.00		0.00		0.02	7.56		6.88
31	14511.3	0.015		0.00			0.00		0.00		0.00		0.00	7.40		7.55
Avg	16511.174	0.017		Total Rain	Total Snow	2.00	0.24	1.00	0.12	0.06	0.01	Mean	0.14	Min	Max	Min
Max	21592.3	0.022		6.10	0.00	2.00	0.27	1.00	0.14	0.06	0.01	5.10	1.04	7.14	8.41	6.18

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Aug-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	19456	0.019		0.00			0.00		0.00		0.00		0.08	7.44		7.94
2	13615	0.014		0.00			0.00		0.00		0.00		0.09	7.26		7.94
3	14472	0.014		0.00			0.00		0.00		0.00		0.03	7.48		8.97
4	18120	0.018		0.00			0.00		0.00		0.00		0.03	7.26		8.18
5	15200	0.015		0.00			0.00		0.00		0.00		0.00	7.11		8.96
6	15054	0.015		0.00			0.00		0.00		0.00		0.04	7.59		10.84
7	14328	0.014		1.00			0.00		0.00		0.00		0.67	7.43		7.84
8	20103	0.020		0.50			0.00		0.00		0.00		0.38	8.01		6.02
9	15732	0.016		0.00			0.00		0.00		0.00		0.06	7.79		7.11
10	15555	0.016		0.00		2.00	0.26	1.00	0.13	0.10	0.01	2.00	0.03	7.28		6.55
11	18074	0.018		0.00			0.00		0.00		0.00		0.02	8.04		7.16
12	16618	0.017		0.00			0.00		0.00		0.00		0.01	7.87		6.96
13	17585	0.018		0.70			0.00		0.00		0.00		0.10	7.61		6.63
14	16615	0.017		0.00			0.00		0.00		0.00		0.35	7.62		8.48
15	17547	0.018		0.90		2.00	0.29	2.00	0.29	0.04	0.01	3.00	0.07	8.02		6.15
16	18135	0.018		0.00			0.00		0.00		0.00		0.05	7.61		7.55
17	13845	0.014		0.00			0.00		0.00		0.00		0.05	7.52		6.98
18	17530	0.018		0.90			0.00		0.00		0.00		0.04	7.48		6.47
19	16496	0.016		0.00			0.00		0.00		0.00		0.03	7.85		8.85
20	14554	0.015		0.00			0.00		0.00		0.00		0.06	7.86		6.75
21	14933	0.015		0.00			0.00		0.00		0.00		0.07	7.60		7.16
22	17522	0.018		0.00			0.00		0.00		0.00		0.02	7.22		9.33
23	16787	0.017		0.00			0.00		0.00		0.00		0.04	7.26		8.03
24	15752.2	0.016		0.00			0.00		0.00		0.00		0.02	8.26		8.34
25	16635.2	0.017		0.80			0.00		0.00		0.00		0.11	7.54		8.02
26	15382.8	0.015		0.25			0.00		0.00		0.00		0.44	7.82		8.07
27	15076.6	0.015		0.00			0.00		0.00		0.00		0.31	7.54		10.79
28	15513	0.016		0.00			0.00		0.00		0.00		0.02	7.15		7.96
29	14307.9	0.014		0.00			0.00		0.00		0.00		0.08	7.53		6.90
30	14498.9	0.014		0.35			0.00		0.00		0.00		0.07	7.47		8.09
31	16001.2	0.016		0.00			0.00		0.00		0.00		0.41	7.49		8.02
Avg	16162.703	0.016		Total Rain	Total Snow	2.00	0.28	1.50	0.21	0.07	0.01	Mean	0.12	Min	Max	Min
Max	20103	0.020		5.40	0.00	2.00	0.29	2.00	0.29	0.10	0.01	2.45	0.67	7.11	8.26	6.02

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Month of:** Sep-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	96778	0.097		0.00			0.00		0.00		0.000		0.09	7.83		9.22
2	10390.5	0.010		0.00			0.00		0.00		0.000		0.01	7.78		8.44
3	11720.2	0.012		0.00			0.00		0.00		0.000		0.07	7.79		9.29
4	11186.7	0.011		0.20			0.00		0.00		0.000		0.02	7.90		9.11
5	12916.8	0.013		0.00			0.00		0.00		0.000		0.02	7.70		8.38
6	11362.2	0.011		0.00			0.00		0.00		0.000		0.03	7.69		8.57
7	11436.1	0.011		0.00		3.30	0.31	8.00	0.76	0.04	0.004	2.00	0.02	7.97		8.44
8	12209	0.012		0.00			0.00		0.00		0.000		0.03	7.86		9.05
9	11315	0.011		0.00			0.00		0.00		0.000		0.04	7.84		8.72
10	9070.8	0.009		0.01			0.00		0.00		0.000		0.06	7.64		6.07
11	11158.2	0.011		0.00			0.00		0.00		0.000		0.07	7.38		8.76
12	11190.4	0.011		0.00		0.02	0.00	5.00	0.47	0.02	0.002	18.00	0.04	7.51		8.32
13	48605	0.049		4.00			0.00		0.00		0.000		0.02	7.82		9.50
14	9264.8	0.009		0.20			0.00		0.00		0.000		0.02	7.88		9.23
15	9493.9	0.009		0.30			0.00		0.00		0.000		0.04	7.81		8.66
16	14902.1	0.015		0.00			0.00		0.00		0.000		0.02	7.97		8.76
17	16060.5	0.016		0.30			0.00		0.00		0.000		0.02	7.83		8.86
18	15115.4	0.015		0.00			0.00		0.00		0.000		0.07	7.72		8.78
19	13932.4	0.014		0.00			0.00		0.00		0.000		0.00	7.74		8.63
20	15092.8	0.015		0.00			0.00		0.00		0.000		0.00	7.55		8.64
21	21472.6	0.021		0.00			0.00		0.00		0.000		0.09	7.38		8.68
22	14281.1	0.014		0.10			0.00		0.00		0.000		0.05	7.36		8.75
23	15548.5	0.016		0.10			0.00		0.00		0.000		0.06	7.53		8.39
24	14829	0.015		0.40			0.00		0.00		0.000		0.02	7.50		9.04
25	14489.4	0.014		0.00			0.00		0.00		0.000		0.05	7.51		8.80
26	16412	0.016		0.20			0.00		0.00		0.000		0.02	7.82		7.81
27	16437.6	0.016		0.45			0.00		0.00		0.000		0.02	7.66		8.17
28	15921.1	0.016		0.35			0.00		0.00		0.000		0.07	7.53		9.42
29	15416.7	0.015		0.00			0.00		0.00		0.000		0.03	7.71		8.71
30	15099	0.015		0.00			0.00		0.00		0.000		0.05	7.58		8.59
31		0.000					0.00		0.00		0.000					
Avg	16874.445	0.017		Total Rain	Total Snow	1.66	0.16	6.50	0.61	0.03	0.003	Mean	0.04	Min	Max	Min
Max	96778	0.097		6.61	0.00	3.30	0.31	8.00	0.76	0.04	0.004	6.00	0.09	7.36	7.97	6.07

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Oct-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	16021	0.016		0.00			0.00		0.00		0.00		0.54	7.51		9.17
2	15567.7	0.016		0.00			0.00		0.00		0.00		0.63	7.52		10.07
3	19512.9	0.020		0.00			0.00		0.00		0.00		0.00	7.70		9.73
4	16556	0.017		0.00			0.00		0.00		0.00		0.03	7.85		10.05
5	13137.1	0.013		0.00		2.00	0.22	8.00	0.88	0.07	0.01	2.00	0.07	7.52		9.05
6	15958.4	0.016		0.20			0.00		0.00		0.00		0.02	7.55		8.40
7	18666	0.019		0.90			0.00		0.00		0.00		0.08	7.76		10.56
8	12786.9	0.013		0.40			0.00		0.00		0.00		0.03	8.12		9.09
9	10509.2	0.011		0.00			0.00		0.00		0.00		0.05	7.51		10.74
10	11481.7	0.011		0.00			0.00		0.00		0.00		0.11	7.52		10.55
11	14561	0.015		0.00			0.00		0.00		0.00		0.41	7.68		11.39
12	16934.9	0.017		0.00			0.00		0.00		0.00		0.07	7.68		10.38
13	10715.3	0.011		0.00			0.00		0.00		0.00		0.05	7.69		9.85
14	12660.9	0.013		0.30			0.00		0.00		0.00		0.02	7.83		7.93
15	12381.1	0.012		1.10			0.00		0.00		0.00		0.03	7.78		9.19
16	10334.6	0.010		0.00			0.00		0.00		0.00		0.43	7.77		12.67
17	14953.5	0.015		0.00			0.00		0.00		0.00		0.05	7.43		12.62
18	11643	0.012		0.00			0.00		0.00		0.00		0.04	8.04		11.43
19	11933	0.012		0.00		2.70	0.27	3.00	0.30	0.02	0.00	2.00	0.01	7.49		10.17
20	11379.9	0.011		0.00			0.00		0.00		0.00		0.01	7.59		10.08
21	10940.7	0.011		0.30			0.00		0.00		0.00		0.05	7.62		10.37
22	11986.2	0.012		0.00			0.00		0.00		0.00		0.11	7.69		10.61
23	14058	0.014		0.00			0.00		0.00		0.00		0.53	7.83		10.76
24	15216.9	0.015		0.00			0.00		0.00		0.00		0.08	7.53		10.70
25	10594.6	0.011		0.00			0.00		0.00		0.00		0.05	7.74		12.07
26	11583.5	0.012		0.00			0.00		0.00		0.00		0.04	7.56		12.13
27	10413.4	0.010		0.00			0.00		0.00		0.00		0.01	7.47		10.26
28	11269.5	0.011		0.00			0.00		0.00		0.00		0.07	7.32		10.45
29	12504.4	0.013		0.00			0.00		0.00		0.00		0.01	7.58		10.11
30	17630	0.018		0.10			0.00		0.00		0.00		0.09	7.65		12.07
31	22062.9	0.022		0.45			0.00		0.00		0.00		0.28	7.61		10.49
Avg	13740.458	0.014		Total Rain	Total Snow	2.35	0.24	5.50	0.59	0.05	0.00	Mean	0.13	Min	Max	Min
Max	22062.9	0.022		3.75	0.00	2.70	0.27	8.00	0.88	0.07	0.01	2.00	0.63	7.32	8.12	7.93

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Nov-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	17400.5	0.017		0.00			0.00		0.00		0.00		0.07	7.88		10.11
2	2257.05	0.002		0.00			0.00		0.00		0.00		0.05	7.75		11.50
3	17782	0.018		0.00			0.00		0.00		0.00		0.02	7.47		11.24
4	20548.2	0.021		0.00			0.00		0.00		0.00		0.02	8.21		11.47
5	17438.1	0.017		0.00			0.00		0.00		0.00		0.02	7.79		10.01
6	15310.6	0.015		0.00			0.00		0.00		0.00		0.12	7.53		10.24
7	11465.4	0.011		0.00			0.00		0.00		0.00		0.00	7.73		12.53
8	11779	0.012		0.00			0.00		0.00		0.00		0.03	7.84		10.24
9	12164.5	0.012		0.00		3.10	0.31	2.00	0.20	0.05	0.01	16.00	0.01	7.94		10.57
10	12132.1	0.012		0.00			0.00		0.00		0.00		0.01	7.98		10.95
11	10733.9	0.011		0.00			0.00		0.00		0.00		0.01	8.03		11.35
12	14246.8	0.014		0.00			0.00		0.00		0.00		0.01	7.76		11.81
13	15317.5	0.015		0.00			0.00		0.00		0.00		0.04	7.59		12.64
14	16980.9	0.017		0.00			0.00		0.00		0.00		0.03	7.96		11.12
15	10492.4	0.010		0.00			0.00		0.00		0.00		0.14	7.79		10.47
16	10654	0.011		0.00		2.50	0.22	4.00	0.36	0.08	0.01	25.00	0.05	7.65		9.69
17	9571.51	0.010		0.00			0.00		0.00		0.00		0.00	8.33		8.74
18	12429.7	0.012		0.10			0.00		0.00		0.00		0.02	8.07		9.46
19	11188.2	0.011		0.00			0.00		0.00		0.00		0.05	8.06		9.41
20	13114.4	0.013		0.00			0.00		0.00		0.00		0.05	7.68		10.19
21	13114.4	0.013		0.00			0.00		0.00		0.00		0.02	7.73		9.73
22	19324.6	0.019		2.10			0.00		0.00		0.00		0.02	8.11		9.38
23	14881.3	0.015		0.00			0.00		0.00		0.00		0.00	7.22		9.13
24	10557.5	0.011		0.00			0.00		0.00		0.00		0.02	7.31		9.08
25	12562.9	0.013		0.00			0.00		0.00		0.00		0.05	7.42		9.24
26	13592.3	0.014		0.00			0.00		0.00		0.00		0.00	7.09		10.50
27	12865.8	0.013		0.80			0.00		0.00		0.00		0.51	7.42		9.55
28	21281	0.021		0.00			0.00		0.00		0.00		0.05	7.94		10.09
29	14871.1	0.015		0.00			0.00		0.00		0.00		0.05	7.98		10.26
30	17043.3	0.017		0.00			0.00		0.00		0.00		0.01	7.92		10.29
Avg	13325.837	0.013		Total Rain	Total Snow	2.80	0.27	3.00	0.28	0.07	0.01	Mean	0.05	Min	Max	Min
Max	21281	0.021		3.00	0.00	3.10	0.31	4.00	0.36	0.08	0.01	20.00	0.51	7.09	8.33	8.74

SUPPLEMENTAL MONITORING REPORT

CASE NAME Schuyllkill County Municipal Authority - Seider's Hill **Month of:** Dec-23

PERMIT NUMBER:

	FLOW		REMARKS			CBOD		TSS		AMMONIA		F.C.	TRC	pH		D.O.
Day	Flow	GPD	Conditions	Rain	Snow	mg/l	LB/Day	mg/l	LB/Day	mg/l	LB/Day	#/100ml	mg/l	S.U.		mg/l
1	10995.1	0.011		0.00			0.00		0.00		0.00		0.06	7.57		11.15
2	12252.1	0.012		0.35			0.00		0.00		0.00		0.03	8.41		9.37
3	12874	0.013		0.50			0.00		0.00		0.00		0.01	8.06		9.96
4	15011.7	0.015		0.10			0.00		0.00		0.00		0.03	7.69		11.35
5	16916.7	0.017		0.00			0.00		0.00		0.00		0.01	7.63		9.88
6	12811	0.013		0.10		2.90	0.31	10.00	1.07	0.02	0.00	2.00	0.17	7.51		9.85
7	14511	0.015		0.00			0.00		0.00		0.00		0.10	7.34		10.85
8	16716.5	0.017		0.00			0.00		0.00		0.00		0.05	7.58		12.05
9	15719.3	0.016		0.00			0.00		0.00		0.00		0.02	7.75		10.93
10	13649.6	0.014		0.35			0.00		0.00		0.00		0.00	7.40		11.33
11	9139.6	0.009		1.40			0.00		0.00		0.00		0.08	7.75		9.75
12	9335.4	0.009		0.00		3.10	0.24	7.00	0.55	0.08	0.01	2.00	0.01	7.81		10.24
13	16482.5	0.016		0.00			0.00		0.00		0.00		0.00	8.25		10.21
14	19538.8	0.020		0.00			0.00		0.00		0.00		0.06	8.13		10.70
15	13671.1	0.014		0.00			0.00		0.00		0.00		0.02	7.78		10.01
16	14720.5	0.015		0.00			0.00		0.00		0.00		0.01	7.88		10.36
17	17327.8	0.017		0.00			0.00		0.00		0.00		0.02	8.56		9.12
18	24570.62	0.025		3.80			0.00		0.00		0.00		0.12	7.32		8.68
19	200031	0.200		0.00			0.00		0.00		0.00		0.08	7.96		10.05
20	15193.1	0.015		0.00			0.00		0.00		0.00		0.01	7.42		9.69
21	22120.3	0.022		0.00			0.00		0.00		0.00		0.03	7.48		11.37
22	18432.8	0.018		0.00			0.00		0.00		0.00		0.03	7.33		9.31
23	16242.6	0.016		0.00			0.00		0.00		0.00		0.02	8.04		9.36
24	13707.2	0.014		0.10			0.00		0.00		0.00		0.02	7.27		9.77
25	13352.3	0.013		0.00			0.00		0.00		0.00		0.03	7.59		10.53
26	16429.3	0.016		0.00			0.00		0.00		0.00		0.04	8.15		11.51
27	21349.2	0.021		0.25			0.00		0.00		0.00		0.04	7.55		11.54
28	16254	0.016		0.70			0.00		0.00		0.00		0.03	8.03		10.93
29	14248.7	0.014		0.00			0.00		0.00		0.00		0.10	8.19		10.93
30	13474.2	0.013		0.00			0.00		0.00		0.00		0.03	8.33		10.84
31	14696.2	0.015		0.00			0.00		0.00		0.00		0.02	7.74		10.91
Avg	21347.555	0.021		Total Rain	Total Snow	3.00	0.28	8.50	0.81	0.05	0.00	Mean	0.04	Min	Max	Min
Max	200031	0.200		7.65	0.00	3.10	0.31	10.00	1.07	0.08	0.01	2.00	0.17	7.27	8.56	8.68

Influent Results

CASE NAME Schuylkill County Municipal Authority - Seider's Hill **Year:** 2023
PERMIT NUMBER: PA0064068

Month	Flow (MGD)	BOD	BOD (lbs.)	COD	COD (lbs.)	TSS	TSS (lbs.)	Total NH3	Total NH3 (lbs.)	Total P	Total P (lbs.)
January	0.013	279.00	30.25			267.00	28.95				
	0.012	235.00	23.52	472.00	47.24	147.00	14.71	34.40	3.44	5.21	0.52
AVG.		**257.00**	**26.88**	**472.00**	**47.24**	**207.00**	**21.83**	**34.40**	**3.44**	**5.21**	**0.52**
MAX.		**279.00**	**30.25**	**472.00**	**47.24**	**267.00**	**28.95**	**34.40**	**3.44**	**5.21**	**0.52**
February	0.016	242.00	32.29			173.00	23.09				
	0.015	253.00	31.65	625.00	78.19	193.00	24.14	41.00	5.13	6.24	0.78
AVG.		**247.50**	**31.97**	**625.00**	**78.19**	**183.00**	**23.61**	**41.00**	**5.13**	**6.24**	**0.78**
MAX.		**253.00**	**32.29**	**625.00**	**78.19**	**193.00**	**24.14**	**41.00**	**5.13**	**6.24**	**0.78**
March	0.012	387.00	38.73			330.00	33.03		0.00		0.00
	0.014	292.00	34.09	830.00	96.91	297.00	34.68	40.40	4.72	6.02	0.70
AVG.		**339.50**	**36.41**	**830.00**	**96.91**	**250.75**	**28.87**	**40.40**	**2.36**	**6.02**	**0.35**
MAX.		**387.00**	**38.73**	**830.00**	**96.91**	**330.00**	**34.68**	**40.40**	**4.72**	**6.02**	**0.70**
April	0.014	157.00	18.33	417.00	48.69	114.00	13.31	18.90	2.21	11.50	1.34
	0.014	183.00	21.37			156.00	18.21				
AVG.		**183.00**	**21.37**			**156.00**	**18.21**	**18.90**	**2.21**	**11.50**	**1.34**
MAX.		**183.00**	**21.37**	**417.00**	**48.69**	**156.00**	**18.21**	**18.90**	**2.21**	**11.50**	**1.34**
May	0.014	57.40	6.70			46.00	5.37				
	0.011	159.00	14.59	421.00	38.62	80.00	7.34	29.70	2.72	5.16	0.47
AVG.		**108.20**	**10.64**	**421.00**	**38.62**	**63.00**	**6.36**	**29.70**	**2.72**	**5.16**	**0.47**
MAX.		**159.00**	**14.59**	**421.00**	**38.62**	**80.00**	**7.34**	**29.70**	**2.72**	**5.16**	**0.47**
June	0.011	131.00	12.02		0.00	104.00	9.54		0.00		0.00
	0.015	131.00	16.39	310.00	38.78	61.00	7.63	15.30	1.91	8.21	1.03
AVG.		**131.00**	**14.20**	**310.00**	**19.39**	**82.50**	**8.59**	**15.30**	**0.96**	**8.21**	**0.51**
MAX.		**131.00**	**16.39**	**310.00**	**38.78**	**104.00**	**9.54**	**15.30**	**1.91**	**8.21**	**1.03**
July	0.013	135.00	14.64			114.00	12.36				
	0.016	127.00	16.95	309.00	41.23	106.00	14.14	12.50	1.67	5.52	0.74
AVG.		**131.00**	**15.79**	**309.00**	**41.23**	**110.00**	**13.25**	**12.50**	**1.67**	**5.52**	**0.74**
MAX.		**135.00**	**16.95**	**309.00**	**41.23**	**114.00**	**14.14**	**12.50**	**1.67**	**5.52**	**0.74**
August	0.016	85.40	11.40			24.00	3.20				
	0.018	144.00	21.62	318.00	47.74	160.00	24.02	25.00	3.75	4.15	0.62
AVG.		**144.00**	**21.62**	**318.00**	**47.74**	**160.00**	**24.02**	**25.00**	**3.75**	**4.15**	**0.62**
MAX.		**144.00**	**21.62**	**318.00**	**47.74**	**160.00**	**24.02**	**25.00**	**3.75**	**4.15**	**0.62**
September	0.010	112.00	9.34			74.00	6.17				
	0.011	220.00	20.18	515.00	47.25	202.00	18.53	30.50	2.80	4.46	0.41
AVG.		**166.00**	**14.76**	**515.00**	**47.25**	**138.00**	**12.35**	**30.50**	**2.80**	**4.46**	**0.41**
MAX.		**220.00**	**20.18**	**515.00**	**47.25**	**202.00**	**18.53**	**30.50**	**2.80**	**4.46**	**0.41**
October	0.013	187.00	20.27			220.00	23.85				
	0.012	174.00	17.41	460.00	46.04	160.00	16.01	45.40	4.54	7.06	0.71
AVG.		**180.50**	**18.84**	**460.00**	**46.04**	**190.00**	**19.93**	**45.40**	**4.54**	**7.06**	**0.71**
MAX.		**187.00**	**20.27**	**460.00**	**46.04**	**220.00**	**23.85**	**45.40**	**4.54**	**7.06**	**0.71**
November	0.012	301.00	30.12			120.00	12.01				
	0.011	225.00	20.64	494.00	45.32	207.00	18.99	44.10	4.05	7.39	0.68
AVG.		**263.00**	**25.38**	**494.00**	**45.32**	**163.50**	**15.50**	**44.10**	**4.05**	**7.39**	**0.68**
MAX.		**301.00**	**30.12**	**494.00**	**45.32**	**207.00**	**18.99**	**44.10**	**4.05**	**7.39**	**0.68**
December	0.013	157.00	17.02			128.00	13.88				
	0.009	173.00	12.99	407.00	30.55	74.00	5.55	42.50	3.19	6.05	0.45
AVG.		**165.00**	**15.00**	**407.00**	**30.55**	**101.00**	**9.72**	**42.50**	**3.19**	**6.05**	**0.45**
MAX.		**173.00**	**17.02**	**407.00**	**30.55**	**128.00**	**13.88**	**42.50**	**3.19**	**6.05**	**0.45**
Annual Average		192.98	21.07	469.18	48.95	150.40	16.85	31.64	3.07	6.41	0.63

SCHUYLKILL COUNTY MUNICIPAL AUTHORITY
P.O. BOX 960
221 S. CENTRE STREET
POTTSVILLE, PA 17901
(570) 622-8240; FAX: (570) 622-8248

Seiders Hill Hauled Sludge Disposal

Seiders Hill sludge is hauled to the septage receiving station at SCMA's Deer Lake Waste Water Treatment Plant (PA0042170), located in Orwigsburg, Pa. The sludge is processed at the Deer Lake Waste Water Treatment plant and taken by Nester's Sanitation to be disposed of at CES Landfill in Hegins, PA.

Sewage Sludge Management Inventory

CASE NAME Schuylkill County Municipal Authority - Seider's Hill

PERMIT NUMBER: PA0064068 **Year:** 2021

Month	Average Flow (MGD)	Average Influent BOD (mg/L)	Average Influent BOD (lbs/day)	Average Effluent CBOD (mg/L)	Average Effluent BOD (mg/L)	Average Effluent BOD (lbs/day)	Sludge Hauled (Gallons)	Sludge Hauled (dry tons)
January	0.014	491.00	59.73	7.75	3.18	0.36	0.00	0.00
February	0.012	297.00	31.01	3.70	1.52	0.15	10000.00	0.83
March	0.014	405.00	42.28	4.25	1.74	0.20	5900.00	0.49
April	0.015	213.00	30.20	7.05	2.89	0.35	0.00	0.00
May	0.015	156.00	19.52	6.35	2.60	0.32	10000.00	0.83
June	0.014	220.00	22.78	4.50	1.85	0.22	0.00	0.00
July	0.013	219.50	22.43	2.40	0.98	0.11	0.00	0.00
August	0.018	256.00	23.49	2.70	1.11	0.17	0.00	0.00
September	0.012	204.50	20.15	2.65	1.09	0.11	0.00	0.00
October	0.018	279.50	30.46	3.65	1.50	0.22	0.00	0.00
November	0.010	326.50	26.21	11.50	4.72	0.39	0.00	0.00
December	0.013	360.00	35.84	4.15	1.70	0.19	0.00	0.00
Total	0.17	3428.00	364.10	60.65	24.87	2.79	25900.00	2.16
Average	0.01	285.67	30.34	5.05	2.07	0.23		0.18
Min	0.01	156.00	19.52	2.40	0.98	0.11	0	0.00
Max	0.02	491.00	59.73	11.50	4.72	0.39	10000	0.83

Sewage Sludge Management Inventory

CASE NAME Schuylkill County Municipal Authority - Seider's Hill

PERMIT NUMBER: PA0064068 **Year:** 2022

Month	Average Flow (MGD)	Average Influent BOD (mg/L)	Average Influent BOD (lbs/day)	Average Effluent CBOD (mg/L)	Average Effluent BOD (mg/L)	Average Effluent BOD (lbs/day)	Sludge Hauled (Gallons)	Sludge Hauled(dry tons)
January	0.007	393.50	29.54	10.15	4.16	0.26	0.00	0.00
February	0.013	517.00	43.12	7.25	2.97	0.33	10000.00	0.63
March	0.011	270.50	28.06	13.30	5.45	0.51	0.00	0.00
April	0.012	386.00	34.77	7.65	3.14	0.32	0.00	0.00
May	0.015	295.50	33.36	6.15	2.52	0.31	0.00	0.00
June	0.014	308.00	25.69	8.05	3.30	0.39	0.00	0.00
July	0.014	238.50	30.86	3.10	1.27	0.15	0.00	0.00
August	0.020	263.00	43.87	3.70	1.52	0.26	0.00	0.00
September	0.014	384.50	32.07	3.00	1.23	0.14	0.00	0.00
October	0.014	254.00	21.18	2.80	1.15	0.14	0.00	0.00
November	0.013	350.50	42.49	9.55	3.92	0.44	0.00	0.00
December	0.014	215.00	29.48	4.40	1.80	0.21	13775.00	0.86
Total	0.16	3876.00	394.48	79.10	32.43	3.44		1.49
Average	0.01	323.00	32.87	6.59	2.70	0.29		0.12
Min	0.01	215.00	21.18	2.80	1.15	0.14	0	0.00
Max	0.02	517.00	43.87	13.30	5.45	0.51	13775	0.86

Sewage Sludge Management Inventory

CASE NAME Schuylkill County Municipal Authority - Seider's Hill
PERMIT NUMBER: PA0064068 **Year:** 2023

Month	Average Flow (MGD)	Average Influent BOD (mg/L)	Average Influent BOD (lbs/day)	Average Effluent CBOD (mg/L)	Average Effluent BOD (mg/L)	Average Effluent BOD (lbs/day)	Sludge Hauled (Gallons)	Sludge Hauled(dry tons)
January	0.015	257.00	26.88	4.60	1.89	0.23	0.00	0.00
February	0.013	247.50	31.97	5.10	2.09	0.22	10000.00	0.63
March	0.015	339.50	36.41	5.45	2.23	0.28	0.00	0.00
April	0.013	183.00	21.37	10.85	4.45	0.49	0.00	0.00
May	0.013	108.20	10.64	10.50	4.31	0.46	0.00	0.00
June	0.013	131.00	14.20	4.40	1.80	0.19	8515.00	0.53
July	0.017	131.00	15.79	2.00	0.82	0.11	0.00	0.00
August	0.022	135.00	16.95	2.00	0.82	0.15	7251.00	0.45
September	0.017	166.00	14.76	1.66	0.68	0.10	0.00	0.00
October	0.014	180.50	18.84	2.35	0.96	0.11	0.00	0.00
November	0.013	263.00	25.38	2.80	1.15	0.13	4552.00	0.28
December	0.021	165.00	15.00	3.00	1.23	0.22	0.00	0.00
Total	0.18	2306.70	248.21	54.71	22.43	2.68		1.90
Average	0.02	192.23	20.68	4.56	1.87	0.22		0.16
Min	0.01	108.20	10.64	1.66	0.68	0.10	0	0.00
Max	0.02	339.50	36.41	10.85	4.45	0.49	10000	0.63