2.1 DESCRIPTION OF THE STUDY AREA

The base map data in the following sections has been provided by the Pike County Geographic Information Systems (GIS) and Environmental Systems Research Institute, Inc. (ESRI). Various sources were referenced to create mapping discussed in this report, which are noted on the individual exhibits.

2.1.1 Study Area

The Study Area for this Act 537 Sewage Facilities Plan consists of the Northeast Branch and Southwest Branch within Westfall Township, Milford Township East, portion of Milford Township West, Matamoras Borough, and Milford Borough. This Study Area encompasses is surrounded by the Delaware River and New Jersey to the East, Shohola Township and Dingman Township to the West, and the State of New York to the North. A general location map of the Study area is detailed on Map No. 1 in Appendix B. Only portions of Westfall Township have sewage, which is provided by the Municipal Authority of Westfall Township. None of the other municipalities have any existing wastewater collection systems.

2.2 PHYSICAL CHARACTERISTICS

2.2.1 Streams and Watersheds

Within the Study area, the primary surface water streams include the Delaware River, Sawkill Creek, Vandermark Creek, Cummins Creek, Rosetown Creek, Crawford Branch, Vantine Brook, and the Deep Brook. As shown on Map No. 2 in Appendix C, all water within the Study area is drained by the Delaware River and its tributaries. The Study area also contains the Sawkill Creek Watershed, Vandermark Creek Watershed, and Cummins Creek Watershed which are tributaries to the Delaware River. The Delaware River Watershed extends beyond the Study area's limits and drains to the Delaware Bay after the river enters the State of Delaware.

According to Title 25, Chapter 93 of the Pennsylvania Code, the following protected water use watersheds have been identified within the Study Area:

- **Delaware River** – *Warm Water Fishes-Migratory Fishes (WWF-MF)*
- **Sawkill Creek** – *Exceptional Value Waters-Migratory Fishes (EV-MF)*
- **Vandermark Creek** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*
- **Cummins Creek** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*
- **Rosetown Creek** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*
- **Crawford Branch** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*
- **Vantine Brook** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*
- **Deep Brook** – *Exceptional Value Waters-Migratory Fishes (EV-MF)*
- **All unnamed tributaries to the Delaware River** – *High Quality-Cold Water Fishes-Migratory Fishes (HQ-CWF-MF)*

2.2.2 Floodplains

Floodplains are located along the Delaware River, Sawkill Creek, Vandermark Creek and a fragment of the Deep Brook, and a portion of the Cummins Creek. In accordance with the policies and procedures of the National Flood Insurance Program, the Federal Emergency Management Agency (FEMA) has prepared mapping of the 100-year floodplains for the Delaware River, Sawkill Creek, Vandermark Creek, and the Cummins Creek, as well as some of their tributaries (Refer to Map No. 2 in Appendix C).

The majority of the properties in the Study Area are located outside of the 100-year floodplains; however, there are some properties in the Study Area within the 100-year floodplains of the Delaware River and its tributaries. The 100-year floodplain is an area based on past experience and high statistical probability that a destructive flood event will occur. The Study Area is currently in compliance with the Federal Flood Insurance Program, and the State Flood Plain Management Act.

2.2.3 Ponds/Lakes/Reservoirs

There are no lakes, or reservoirs located within the Study Area. However, there are some freshwater ponds throughout the Study Area. More information about these ponds can be seen in Section 2.7 Wetlands.

2.3 SOILS

The characteristics of soils in the Study Area were reviewed and analyzed to determine the probable soil limitations for on-lot sewage disposal systems (OLDS) based on the Pike County Soil Survey Report prepared by the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS). The NRCS Web Soil Survey was also referenced, which offers information produced by the National Cooperative Soil Survey and operated by the NRCS (Refer to Map No. 3 in Appendix C).

2.3.1 Soil Types

Soil types are mapped using abbreviations. The first two letters indicate the soil phase, i.e. the Ab for Albright in AbB. The third letter indicates the slope, i.e. the B in AbB. Slope categories are A, B, C, D, E or F:

A	0 to 3 percent slope
B	3 to 8 percent slope
C	8 to 15 percent slope
D	15 to 25 percent slope
E, F	greater than 25 percent slope, variations of slope

The following soils are presenting the Study Area.

- Arnot channery loams (ArC2, ArE2)
- Barbour fine sandy loam (Ba)
- Braceville fine sandy loam (Br)
- Chenango gravelly fine sandy loam (ChB3, ChC3, ChD3)
- Craigsville – Wyoming complex (CrB)
- Delaware fine sandy loams (DeA3, DeB3, DeC3)
- Edgemere stony loam (EdA)
- Edgemere – Shohola complex (EgB)
- Freetown mucky peat (Fr)
- Lordstown – Swartswood complex (LrB2, LrC2)
- Manlius channery silt loams (MaB2, MaC2)
- Manlius – Arnot – Rock outcrop complex (MnD2, MnF2)
- Mardin channery silt loams (MrB2, MrC2)
- Mardin stony loams (MdB2, MdC2)
- Morris channery loam (MoB)
- Paupack muck peak (Pa)
- Philo loam (Ph)
- Pits, shale, and gravel (Pi)
- Pope fine sandy loam (Po)
- Shohola – Edgemere complex (ShB2, ShC2)
- Suncook loamy sand (SuB)

- Swartswood fine sandy loam (SwB)
- Unadilla silt loam (Un)
- Water (W)
- Wurtsboro fine sandy loam (WuB)
- Wyalusing fine sandy loam (Wa)
- Wyoming cobbly sandy loams (WyB2, WyF2)

2.3.2 Prime Agricultural Soils

Prime farmland, as defined by the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), is the land that is best suited for producing food, feed, forage, fiber, and oilseed crops. It has the soil quality, growing season, and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods. According to the NRCS, prime farmlands generally include Class I and II soils, which produce the highest yields with minimal inputs of energy and economic resources. Qualities that characterize prime agricultural soils include high permeability to water and air, few or no rocks, optimum levels of acidity and alkalinity, 0 to 8 percent slopes, and the absence of flooding during the growing season. These soils may currently be utilized for crops, pasture, woodland, or land covers other than urban land or water areas.

Prime agricultural soils within the Study area are depicted in Map No. 4 in Appendix C. The following soils are considered to be prime agricultural soils in the Municipalities:

- Barbour fine sandy loam (Ba)
- Braceville fine sandy loam (Br)
- Chenango gravelly fine sandy loams (ChB)
- Delaware fine sandy loams (DeA, DeB)
- Mardin channery silt loams (MrB)
- Philo loam (Ph)
- Pope fine sandy loam (Po)
- Unadilla silt loam (Un)

The following soils are considered to be farmlands of Statewide importance in the Municipalities:

- Chenango gravelly fine sandy loams (ChC)
- Mardin channery silt loams (MrC)
- Suncook loamy sand (SuB)
- Wyoming cobbly sandy loams (WyB)

2.3.3 Hydric Soils

Hydric soils are poorly drained soils that develop an anaerobic (limited oxygen) surface layer because of long periods of saturation or inundation by water. These soils display slow permeability. A seasonal high water table is often commonplace in areas where hydric soils are dominant. Hydric soils are typically an indication of wetland areas. The following Study area soils have major hydric components:

- Edgemere stony loam (EdA)
- Edgemere – Shohola complex (EgB)
- Freetown mucky peat (Fr)
- Paupack muck peak (Pa)
- Wyalusing fine sandy Loam (Wa)

The Study area soils have inclusions of hydric components:

- Braceville fine sandy loam (Br)
- Craigsville – Wyoming complex (CrB)
- Manlius channery silt loams (MaB, MaC)
- Mardin channery silt loams (MrB, MrC)
- Mardin stony loams (MdB, MdC)
- Morris channery loam (MoB)
- Philo loam (Ph)
- Pope fine sandy loam (Po)
- Shohola – Edgemere complex (ShB, ShC)
- Suncook loamy sand (SuB)

The areas in the Municipalities with soils having major hydric components or inclusions of hydric components are shown on Map No. 2 in Appendix C.

2.3.4 Soil Suitability for On-Lot Sewage Disposal

Criteria and limitations for suitability for OLDS are presented in Chapter 73 of Title 25 of the Pennsylvania Code and summarized in Table 2-1.

Table 2-1 Suitability Criteria for On-Lot Sewage Disposal Systems

System	Hydric Soils	Depth To Bedrock	Depth to Seasonal High Water Table	Slope
Unsuitable for Any System	Yes	< 16 Inches	< 10 Inches	> 25%
Suitable for Elevated Sand Mound	No	20 Inches or Greater	20 Inches or Greater	<12%
Suitable for Conventional In-Ground System	No	60 Inches or Greater	60 Inches or Greater	<25% for Standard Trenches <8% for Seepage Beds

Note: 1. In addition to limitations relating to soils, subsurface conditions, and slopes, absorption areas shall not be located within 100-year floodways.

The characteristics of the soils in the Municipalities were reviewed and analyzed to determine the probable limitations for OLDS based upon the Pike County Soil Survey Report. Additional soils information was provided by the NRCS's Web Soil Survey. Each soil was assigned a suitability based on the presence of hydric soils, depth to bedrock and seasonally high water table, and slope.

The results of this analysis are presented in Table No. 2-3 and Map No. 5 in Appendix C. In order to compare the Chapter 73 and Soil Survey information to determine the suitability classification, the following criteria were used.

A. *Soil Rating Criteria for Conventional Subsurface Systems*

The following ratings for subsurface systems apply only to deep soils with limiting zones greater than sixty inches (60"). In such areas, the following criteria were used to determine slight limitations, marginal limitations, and generally unsuitable conditions:

- Soils with limiting zones (groundwater or bedrock) at a depth less than sixty inches (60") are rated unsuitable for subsurface systems.

- Soils that exhibit slopes between eight percent (8%) and twenty-five percent (25%) are rated marginal for subsurface systems.

- Soils that exhibit slopes greater than twenty-five percent (25%) are rated unsuitable for subsurface systems.

- Soils with major hydric components are unsuitable for subsurface systems. Soils with inclusions of hydric components are rated at a grade lower than determined using the above criteria.

B. *Soil Rating Criteria for Elevated Sand Mounds*

Soils with a depth of limiting zone between twenty inches (20") and sixty inches (60") typically require elevated sand mounds. In such areas, the following criteria were used to determine marginal or generally unsuitable conditions:

- Soils with limiting zones (groundwater or bedrock) at a depth less than twenty inches (20") are rated unsuitable for elevated sand mounds.

- Soils considered marginal for elevated sand mounds exhibit slopes greater than eight percent (8%) and less than fifteen percent (15%).

- Soils that exhibit slopes greater than fifteen percent (15%) are rated unsuitable for elevated sand mounds.

- Soils with major hydric components are unsuitable for elevated sand mounds. Soils with inclusions of hydric components are rated at a grade lower than determined using the above criteria.

C. *Soil Rating Criteria for IRSIS*

In June of 1996, the DEP created another on-lot disposal alternative for areas deemed unsuitable for subsurface systems or elevated sand mounds. This system, known as Individual Residential Spray Irrigation System (IRSIS), utilizes spray irrigation for ultimate disposal of treated domestic wastewater.

In areas that are unsuitable for standard systems, the following criteria were used to determine marginal limitations and unsuitable conditions:

- Soils revealing a limiting zone of less than 10 inches (seasonal high water table) or 16 inches (coarse fragments/bedrock) are unsuitable.

- Soils that exhibit greater than 4% slope on agricultural land are unsuitable.
- Soils that exhibit greater than 12% slope on grass are unsuitable.
- Soils that exhibit greater than 25% slope on woodlands are unsuitable.
- Soils with major hydric components are unsuitable for IRSIS. Soils with inclusions of hydric components are rated at a grade lower than determined using the above criteria.

Based on the criteria outlined above, the majority of the soils in the developed portions of the Westfall Township, Milford Township East, Milford Township West, Matamoras Borough, and Milford Borough are rated as suitable for conventional subsurface systems. Where conventional subsurface systems are unsuitable, only select properties may be rated suitable and marginally suitable for sand mound systems and still be located outside of 100-year floodways. IRSIS systems could be used in some instances; however, their operation and maintenance are complex and their applications can be limited. Therefore, they were not further investigated in this Plan. They should, however, be considered as an alternative when other methods are not suitable.

As previously identified, Soil Suitability for OLDS (not including IRSIS) for the Study Areas presented in Table No. 2-3 and on Map No. 5 in Appendix C in three (3) general categories:

- Soils Suitable and Marginally Suitable for In-Ground Systems.
- Soils Suitable and Marginally Suitable for Elevated Sand Mounds but Unsuitable for In-Ground Systems.
- Soils Generally Unsuitable for Conventional Systems.

It should be understood that soil testing was not performed in conjunction with the preparation of this Plan. Site-specific investigations are required to determine actual soil characteristics and OLDS suitability at a given location within the Study area on a case-by-case basis.

At the time of the Plan, there are approximately 1,943 OLDS within the Study area. These OLDS are shown on Map No. 11 in Appendix C.

2.4 GEOLOGIC FEATURES

The geology of an area dictates important groundwater characteristics, such as median well yields and the susceptibility of formations to transfer or accumulate contaminants, including bacteria from OLDS and nitrate-nitrogen from agricultural activities. Nitrate pollution of groundwater has not been significant in Pike County, PA according to the USGS Ground Quality Assessment Report for Pike County, PA. According to Groundwater-Quality Assessment of Pike County, Pennsylvania prepared by U.S. Department of Interior (DOI) and the U.S. Geological Survey (USGS), the geologic formations underlying Pike County, PA contain groundwater with nitrate-nitrogen (NO_3-N) concentrations well below 5 mg/L.

Pike County Spatial Data and data from the *Geology and Mineral Resources of Pike County Pennsylvania* prepared by Pennsylvania's Department of Environmental Resources (DER) were used to prepare Map No. 6 in Appendix C, which shows the geologic formations of the bedrock surface underlying the Municipalities. Descriptions of the geologic formations found in the Study area are provided below.

Alluvium (Qal)
Alluvium consists of unconsolidated, poor stratified, poorly to moderately well sorted mixtures of clay, silt, sand, gravel, cobbles, and some boulders. Alluvium is unsuitable for septic systems and construction because of potential for flooding. The thickness is generally unknown, but most deposits are thought to be not more than several feet thick.

Alluvium and Olean Outwash Undifferentiated (Qaoo)
Olean Outwash consists of unconsolidated, stratified sand and gravel, and some boulders. Alluvium consists of the properties said above (Qal). Alluvium and Olean Outwash Undifferentiated is generally unsuitable for septic systems because of the potential for the contamination of the groundwater. The two combined thickness ranges from several feet to 401 feet at Matamoras.

Bedrock and Thin Olean Till, Undivided (br)
Bedrock and Think Olean Till, Undivided, consists of rock exposures and till less than 6 feet thick. Bedrock descriptions can be seen in any formation listed and Olean Till can be seen as listed later. The till thickness is inadequate for septic systems and sanitary-landfill sites.

Mahantango Formation (Dmh)
The Mahantango Formation consists of interbedded dark-gray siltstone, shale, and claystone. The formation is generally unsuitable for septic systems because of poor percolation, but is potentially suitable for sanitary-landfill sites. The formation thickness ranges from 1,300 feet in the north to 2,450 feet in the east.

Marcellus Formation (Dmr)
The Marcellus Formation consists of a thin-bedded, slightly siliceous, dark-gray to grayish-black clay shale and silty clay shall, and some thin beds of argillaceous siltstone. The formation is unsuitable for septic systems due to poor percolation and is not suitable for sanitary-landfill sites because of its steep slopes. The formation has a maximum thickness of 950 feet.

Olean Kame Terrace (Qokt)
Olean Kame Terrace consists unconsolidated, stratified sand and gravel, commonly containing large boulders. This is generally unsuitable for septic systems and sanitary landfills because the sand and gravel afford little or no attenuation of chemical and bacterial contaminants. The thickness varies and generally is unknown ranging from several feet to more than 200 feet.

Olean Till (Qot)
Olean Till consists of unsorted and nonsratified mixture of clay, silt, sand, pebbles, cobbles, and boulders. Olean Till is not suitable for septic, systems, but suitable in some places for sanitary-landfill sites. The thickness of Olean Till ranges from 6 feet to over 200 feet.

Trimmers Rock Formation – Sloat Brook Member (Dtsb)
The Trimmers Rock Formation consists of dominantly dark-gray to medium-dark gray siltstone, shale, and sandstone. It contains slight to moderate percolation which is a problem for septic systems. The formation thickness ranges from 720 to 1825 feet; the Sloat Brook Member in the area has a maximum thickness of 950 feet.

Median yields of wells are described in the following table.

Table 2-2 Median Well Yields

Bedrock Formations	Median Groundwater Yields (GPM)
Alluvium	May Yield Large Quantities
Alluvium and Olean Outwash Undifferentiated	Domestic – 22
Bedrock and Thin Olean Till	No Aquifer Potential
Mahantango	Domestic – 16; Nondomestic – 34
Marcellus	Domestic – 3.75
Olean Kame Terrace	Domestic – 20
Olean Till	Domestic – 28
Trimmers Rock	Domestic – 20; Nondomestic – 60

Yields from the Alluvium and Olean Outwash, Mahantango Formation, Marcellus Formation, Olean Kame Terrace, Olean Teal, and Trimmers Rock Formation are generally suitable for single family detached dwellings. The Bedrock and Thin Olean Till is defined as poor aquifers. The alluvium aquifer potential was unable to be determined as it may contain large yield quantity, but is unknown.

2.5 TOPOGRAPHY

The Study Area is situated in the northeastern portion of Pike County and is bordered by the Delaware River and New Jersey to the East, Shohola Township (Pike County) and Dingman Township (Pike County) to the West, and the state of New York to the North. Elevations in the area can be seen on Map No. 7 in Appendix C.

Topography is an important factor in determining the suitability of an area for on-lot sewage disposal. See Section 2.3.4 for further discussion.

2.6 POTABLE WATER SUPPLIES

The water supply for the Borough of Matamoras comes from five wells, which is operated by the Matamoras Municipal Authority. Wells No. 3 and No.5 are located in Westfall Township which come from the Mahantango Formation Aquifer. Wells No. 7 (inactive), No. 8, and No. 9 are located in the Matamoras Borough and come from the Pleistocene Outwash Aquifer. After distribution of water from the wells, the excess water is stored into two reservoirs. All water is chlorinated for disinfection prior to entering the distribution system. The large reservoir is located in Westfall Township and has a storage capacity of 750,000 gallons of water. The small reservoir has a storage capacity of 300,000 gallons of water and is also located in Westfall Township. The water service area is depicted in Map No. 9 in Appendix C. The 4-year average daily usage from 2015 to 2018 was 41,806 Gallons Per day (GPD) in Westfall Township, and in Matamoras Borough, it was 122,000 GPD.

Milford Borough along with portions of Milford Township and Westfall Township are served by the Milford Municipal Authority. The water service area is depicted in Map No.10 in Appendix C. From 2013 to 2017, the 5-year average metered water usage for the Milford Water Authority was 132,000 GPD.

2.7 WETLANDS

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support a prevalence of vegetation typically adapted for life in saturated soils. Wetlands generally include swamps, marshes, bogs, and other areas that exhibit the three criteria for defining a wetland area: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

As more information has become available about the beneficial aspects of wetland habitats, scientists, engineers, environmental interest groups, and governmental agencies have worked to protect and maintain the unique environments. Along with the traditional uses of wetlands as fish and wildlife habitat, wetlands are now being used for stormwater management and wastewater treatment.

Wetlands are a critical component in many ecological processes and are consequently protected by the federal government. Wetlands provide the following benefits or functions:

- Fish and Wildlife Habitat
- Water Quality Maintenance
- Pollution Filter
- Oxygen Production
- Nutrient Recycling
- Chemical and Nutrient Absorption
- Aquatic Productivity
- Flood Control
- Recreational Land Preservation
- Educational Opportunities
- Microclimate Regulation
- World Climate Regulation
- Sediment Removal
- Energy Source (Peat)
- Open Space Preservation

The National Wetlands Inventory (NWI) mapping, as compiled by the U.S. Fish and Wildlife Service, is useful as a background source of information regarding wetland locations. The maps are prepared through the use of color infrared aerial photographs, and the quality of the maps varies dependant upon the time of year that the photos were taken and other factors. Field investigation, conducted by a trained scientist or engineer, is necessary to determine the actual presence or absence of wetland areas. Map No. 2 in Appendix C includes the available NWI information for the Study Area.

The following wetland types (NWI mapping codes) are found in the Study Area:

- PEM1Ad – Palustrine, Emergent, Persistent, Temporary Flooded, Partially Drained/Ditched
- PEM1E – Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated
- PFO1A – Palustrine, Forested, Broad-Leaved Deciduous, Temporary Flooded
- PUBF – Palustrine, Unconsolidated Bottom, Semi permanently Flooded
- PUBHh – Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded
- PUBHx – Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated
- PSS1A – Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Temporary Flooded
- R2UBH – Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded
- R3UBH – Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded
- R5UBH – Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded

Table 2-3 On-Lot Disposal Systems Soil Suitability Assessment

Soil Symbol	Soil Name	Description	Slope (%)	Depth to Seasonal High Water Table (inches)	Depth to Bedrock (inches)	Hydric Soil (H) or Inclusions (I)	General Limitations					
							Conventional In-Ground Systems			Elevated Sand Mounds		
							Suitable	Marginal	Unsuitable	Suitable	Marginal	Unsuitable
ArC2	Arnot	Channery Loam	9	> 80	17	-			X		X	
ArE2	Arnot	Channery Loam	25	> 80	17	-			X			X
Ba	Barbour*	Fine Sandy Loam	2	54	> 80	-		X		X		
Br	Braceville*	Fine Sandy Loam	2	21	27	I			X	X		
ChB3	Chenango*	Gravelly Fine Sandy Loam	4	> 80	> 80	-	X			X		
ChC3	Chenango**	Gravelly Fine Sandy Loam	12	> 80	> 80	-	X			X		
ChD3	Chenango	Gravelly Fine Sandy Loam	20	> 80	> 80	-	X			X		
CrB	Craigsville – Wyoming	Complex	3	72	85	I	X			X		
DeA3	Delaware*	Fine Sandy Loam	2	> 80	85	-	X			X		
DeB3	Delaware*	Fine Sandy Loam	6	> 80	85	-	X			X		
DeC3	Delaware	Fine Sandy Loam	14	> 80	85	-	X			X		
EdA	Edgemere	Stony Loam	2	0	24	H			X			X
EgB	Edgemere – Shohola	Complex	9	0	24	H			X			X
Fr	Freetown	Mucky Peat	1	0	> 80	H			X			X
LrB2	Lordstown – Swartswood	Complex	4	> 80	30	-			X	X		
LrC2	Lordstown – Swartswood	Complex	12	> 80	30	-			X		X	
MaB2	Manlius	Channery Silt Loam	6	> 80	30	I			X	X		
MaC2	Manilus	Channery Silt Loam	12	> 80	30	I			X		X	
MdB2	Mardin	Stony Loam	4	15	21	I			X		X	
MdC2	Mardin	Stony Loam	12	15	21	I			X			X
MnD2	Manlius – Arnot	Rock Outcrop Complex	23	> 80	30	-			X	X		
MnF2	Manilus – Arnot	Rock Outcrop Complex	55	> 80	30	-			X			X
MoB	Morris	Channery Loam	4	10	16	I			X			X
MrB2	Mardin*	Channery Silt Loam	4	15	21	I			X		X	
MrC2	Mardin**	Channery Silt Loam	12	15	21	I			X			X
Pa	Paupack	Muck Peak	1	0	> 80	H			X			X
Ph	Philo*	Loam	2	27	> 80	I			X	X		
Pi	Pits, shale, and gravel	-	20	> 80	1	-			X			X

Soil Symbol	Soil Name	Description	Slope (%)	Depth to Seasonal High Water Table (inches)	Depth to Bedrock (inches)	Hydric Soil (H) or Inclusions (I)	General Limitations					
							Conventional Inground Systems			Elevated Sand Mounds		
							Suitable	Marginal	Unsuitable	Suitable	Marginal	Unsuitable
Po	Pope*	Fine Sandy Loam	2	> 80	> 80	I	X			X		
ShB2	Shohola - Edgemere	Complex	4	12	24	I			X		X	
ShC2	Shohola – Edgemere	Complex	12	12	24	I			X			X
SuB	Suncook**	Loamy Sand	3	> 80	> 80	I	X			X		
SwB	Swartswood	Fine Sandy Loam	4	30	32	-			X	X		
Un	Unadilla*	Silt Loam	2	> 80	> 80	-	X			X		
W	Water	-	0	-	-	-	-	-	-	-	-	-
Wa	Wyalusing	Fine Sandy Loam	2	3	> 80	H			X			X
Wu	Wurtsboro	Fine Sandy Loam	4	19	22	-			X		X	
WyB2	Wyoming**	Cobbly Sandy Loam	5	> 80	> 80	-	X			X		
WyF2	Wyoming	Cobbly Sandy Loam	23	> 80	> 80	-	X			X		

* Prime Farmland Soils

** Farmland of Statewide Importance