

The attached Figure 1 displays an updated representation of the areas in Allegheny County that are served by public sewage collection and treatment. These service areas were developed based upon the service area information presented in the Allegheny County Comprehensive Sanitary Sewage Management Plan (1999). Service areas as represented in the Comprehensive Sanitary Sewage Management Plan were updated based upon information provided by the individual municipalities and authorities.

The attribute table includes information regarding the owner of the treatment facilities that serve each of the service areas, treatment plant design hydraulic and organic loading capacities, year 2009 projected hydraulic and organic loading rates, and the computed ratio of treatment capacity to loading rates. This information was obtained from the 2004 Chapter 93 Wasteload Management Reports submitted to the Pennsylvania Department of Environmental Protection by the owners of the treatment facilities, supplemented with information obtained directly from the individual systems. The following data is contained in the attribute table:

| Attribute Field Name | Attribute Description |
|----------------------|--|
| ID | Internal owner identification number |
| STPOwner | Name of the owner of the sewage treatment plant serving each service area (includes treatment plant name if owner operates more than one facility) |
| H_Load | Treatment plant hydraulic loading rate (mgd) – 2009 projected average of maximum 3 consecutive months |
| O_Load | Treatment plant organic loading rate (pounds/day) – 2009 projected average of maximum 3 consecutive months |
| H_Cap | Treatment plant design hydraulic capacity (mgd) |
| O_Cap | Treatment plant design hydraulic capacity (pounds/day) |
| HcapVload | Ratio of hydraulic capacity over loading |
| OcapVLoad | Ratio of organic capacity over loading |

This information provides a guide to where public sewage collection and treatment service is readily available and provides an indication of the capacity of the wastewater treatment plants to accommodate development.

SOIL SUITABILITY FOR CONVENTIONAL ON-LOT SEWAGE DISPOSAL

The attached Figure 2 displays a map of soil suitability for the disposal of sewage using conventional septic tank – soil absorption fields. The information was assembled from data contained in the U.S. Natural Resources Conservation Service’s State Soil Geographic (STATSGO) data base. The SSURGO soil suitability data for the Allegheny County soils was extracted from the SSURGO tabular database using the NRCS Soil Data Viewer Software. This software produced a tabular summary of soil suitability for septic tank absorption fields at a soil map unit level of detail. The shapefile map of soil suitability was created by linking the tabular suitability data to a soil survey database for Allegheny County downloaded from the Pennsylvania Spatial Data Access (PASDA) web site.

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24

and 72 inches is evaluated. The ratings soil suitability ratings are based on soil properties, site features, and observed performance of the soils. Permeability, a high water table, depth to bedrock or to a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock or a cemented pan interfere with installation.

Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health. Ground water can be polluted if highly permeable sand and gravel or fractured bedrock is less than 4 feet below the base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively.

The limitations are considered **not limiting** if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome; **somewhat limiting** if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and **very limiting** if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. **Not rated** indicates urban or otherwise disturbed soils that are typically considered to be unsuitable for conventional on-lot septage disposal.

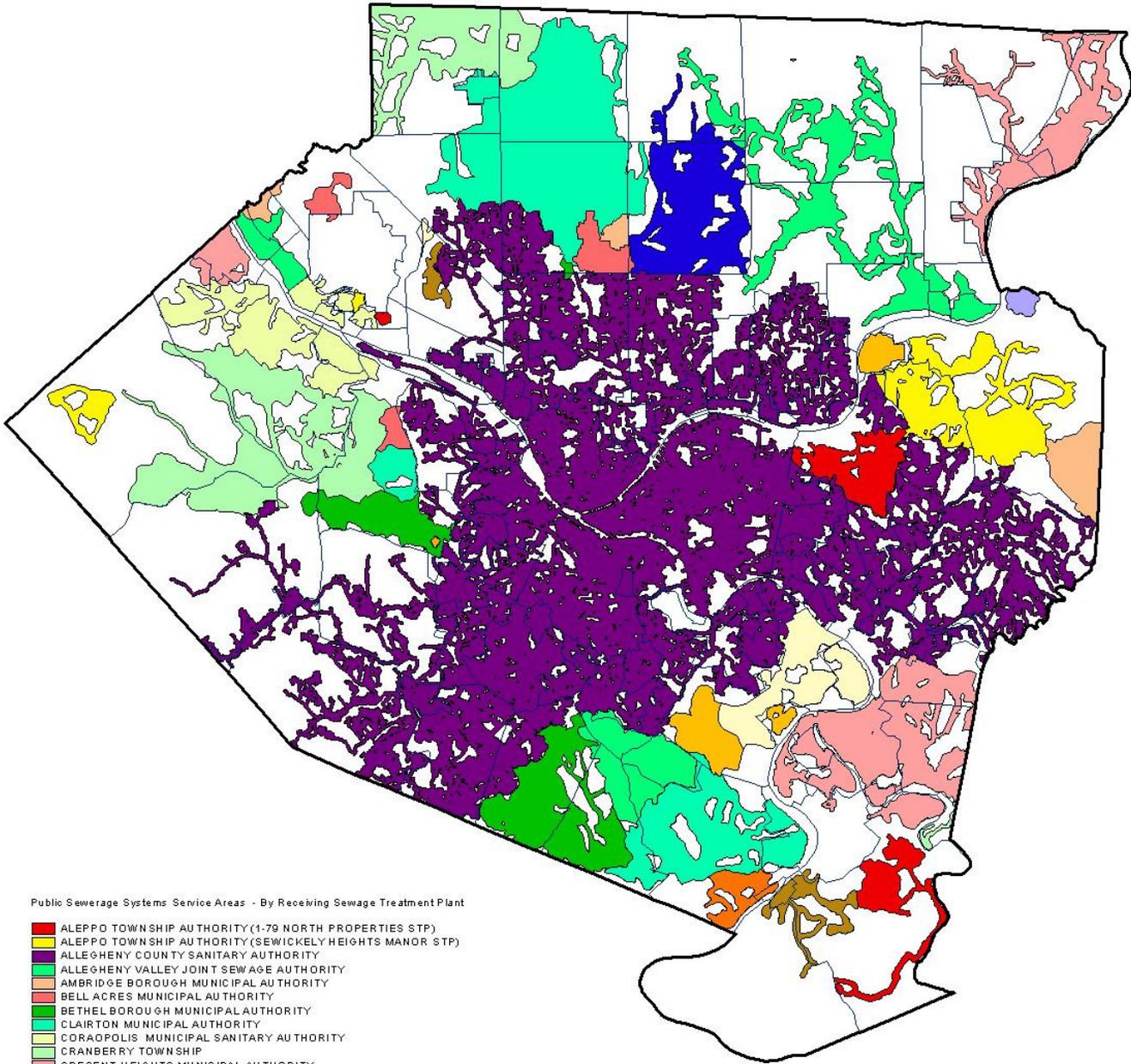
The following data is contained in the attribute table:

| Attribute Field Name | Attribute Description |
|----------------------|---|
| Munsym | Soil group mapping symbol |
| Name | Soil group name |
| Rating | Rating of limitations for on-lot septage disposal |

The suitability for septic tank absorption fields is based upon the use of standard absorption field technology. On a case-by-case basis, on-lot septic disposal can be accomplished in somewhat limiting and very limiting soils if alternative soil absorption practices (such as elevated mounds) are employed. However, general conclusions can be drawn that on-lot septic tank disposal should be avoided in somewhat limiting and very limiting soils to the extent practical and that conventional absorption fields currently operated in very limiting soils can reasonably be suspected to malfunction. Alternatives to on-lot treatment and disposal include public community sewage collection and disposal systems and individual or small privately owned treatment and discharge facilities.

Figure 1

**Allegheny County
Public Sewerage Service Areas**



Public Sewerage Systems Service Areas - By Receiving Sewage Treatment Plant

- ALEPPO TOWNSHIP AUTHORITY (1-79 NORTH PROPERTIES STP)
- ALEPPO TOWNSHIP AUTHORITY (SEWICKELY HEIGHTS MANOR STP)
- ALLEGHENY COUNTY SANITARY AUTHORITY
- ALLEGHENY VALLEY JOINT SEWAGE AUTHORITY
- AMBRIDGE BOROUGH MUNICIPAL AUTHORITY
- BELL ACRES MUNICIPAL AUTHORITY
- BETHEL BOROUGH MUNICIPAL AUTHORITY
- CLAIRTON MUNICIPAL AUTHORITY
- CORAOPOLIS MUNICIPAL SANITARY AUTHORITY
- CRANBERRY TOWNSHIP
- CRESENT-HEIGHTS MUNICIPAL AUTHORITY
- DEER CREEK DRAINAGE BASIN AUTHORITY
- DRAYDSBURG SANITARY AUTHORITY
- DUQUESNE CITY AUTHORITY
- ELIZABETH BOROUGH MUNICIPAL AUTHORITY
- ELIZABETH TOWNSHIP SANITARY AUTHORITY
- FINDLAY TOWNSHIP
- HAMPTON TOWNSHIP SANITARY AUTHORITY
- LEETSDALE BOROUGH MUNICIPAL AUTHORITY
- MCCANDLESS SANITARY AUTHORITY (A & B STP)
- MCCANDLESS SANITARY AUTHORITY (LONGVUE #1 STP)
- MCCANDLESS SANITARY AUTHORITY (LONGVUE #2 STP)
- MCCANDLESS SANITARY AUTHORITY (PINE CREEK STP)
- MOON TOWNSHIP MUNICIPAL AUTHORITY (FLAUGHERTY RUN STP)
- MOON TOWNSHIP MUNICIPAL AUTHORITY (MONTOUR RUN STP)
- MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
- MUNICIPAL SANITARY AUTHORITY OF NEW KENSINGTON
- OAKMONT BOROUGH MUNICIPAL AUTHORITY
- OHIO TOWNSHIP SANITARY AUTHORITY (KILBUCK RUN STP)
- OHIO TOWNSHIP SANITARY AUTHORITY (WINDY KNOLL STP)

Public Sewerage Systems Service Areas - By Receiving Sewage Treatment Plant

- PENN HILLS (LINCOLN ROAD STP)
- PENN HILLS TOWNSHIP PLUM CREEK
- PENNSBURY VILLAGE BOROUGH
- PLEASANT HILLS AUTHORITY
- PLUM BOROUGH MUNICIPAL SEWER AUTHORITY
- ROBINSON TOWNSHIP MUNICIPAL AUTHORITY (COVI-DOUGLAS STP)
- ROBINSON TOWNSHIP MUNICIPAL AUTHORITY CAMPBELLS RU
- ROBINSON TOWNSHIP MUNICIPAL AUTHORITY MOON RUN
- SEWICKELY BOROUGH SANITARY SYSTEM
- SOUTH VERSAILLES TOWNSHIP
- UPPER ALLEGHENY VALLEY JOINT SANITARY AUTHORITY
- WEST ELIZABETH SANITARY AUTHORITY
- WEST MIFFLIN SANITARY MUNICIPAL AUTHORITY (NEW ENGLAND STP)
- WEST MIFFLIN SANITARY MUNICIPAL AUTHORITY (THOMPSON RUN STP)

Figure 2

Allegheny County
Soil Suitability for
Conventional On-Lot Sewage Disposal

