

## **CHAPTER 6: WASTEWATER FACILITIES**



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**Commentary****Recommended Standards****6.0 INTRODUCTION**

All residential developments must be served by wastewater collection and treatment facilities. Options for new developments include expansion of existing community wastewater systems, construction of individual wastewater treatment systems, or the construction of a new community wastewater collection and treatment facilities. New community treatment systems can range from small to medium-size conventional systems, or alternate systems including land-based wastewater treatment systems. The Pennsylvania Clean Streams Law (PA Code, Title 25, Chapter 91) and the Pennsylvania Sewage Facilities Act (Act 537 of 1996, as amended) require that any person planning to construct a new wastewater collection or treatment facility shall first obtain permits from the Pennsylvania Department of Environmental Protection.

The terms used to describe the methods of wastewater treatment are frequently not used consistently, which can lead to a great deal of confusion. This document is consistent in its use of terms as defined by the PA Code.

The terms “individual” and “on-lot” are frequently used interchangeable, but they are not the same in the regulations. On-lot is used to refer to systems that involve a soil-based treatment, either a soil absorption area or a spray field. On-lot is also used to refer to systems that use a retention tank that is periodically pumped, with the waste being taken to another facility for disposal. Individual refers to a sewage facility serving a single lot. It can refer to an on-lot system such a septic tank and leach field or a system that doesn’t utilize soil renovation such as a Small Flow Treatment Facility.

According to the U.S. Census Bureau, decentralized or on-lot wastewater systems serve nearly 25% of U.S. households. The demand for housing has pushed residential development into rural areas typically not served by existing public wastewater treatment facilities. As a result, almost 40% of new developments in Pennsylvania require some type of wastewater facility. The required septic field size coupled with necessary isolation distances often result in the need for lots in developments supported by on-lot septic systems to be larger and larger rather than smaller and/or clustered. As a result, large lot developments are adding significantly to urban sprawl, and the loss of environmentally sensitive lands, and rural open space.

To accommodate the need for housing and the pressures for development within rural areas, protect environmental resources, and maintain open space, treatment alternatives that accommodate smaller, clustered lots are necessary. This requires that traditional views of wastewater treatment be reconsidered, and more innovative on-lot treatment options be permitted.

## Recommended Standards

This chapter provides standards and guidance for the design of individual and community-based systems, including collection and conveyance systems, based on PA Code, Title 25, chapters 71-73 (Reference 1).

This document only addresses gravity conveyance systems because they are the most common and to prevent the document from becoming too cumbersome. Standard engineering practice should be used in the design of vacuum and pressure systems.

### 6.1 GENERAL

#### 6.1.1 Authority and General Requirements

- a. Procedures for the design of wastewater facilities are included in the Pennsylvania Sewage Facilities Act (Act 537, as amended) (Ref. 3). This act:
  - Requires proper planning and permitting of all types of wastewater facilities;
  - Requires permitting of individual and community on-lot wastewater systems; and
  - Provides for uniform standards for the design of on-lot systems.
- b. Wastewater facilities planning, design, and construction shall be conducted in compliance with current PA DEP regulations. All sewage facilities planning shall also be coordinated with the local municipality.
- c. No lot may be developed or subdivided unless suitable for an approved wastewater treatment system.
 

Exceptions:

  - i. Minor plat adjustments: Wastewater treatment facilities shall not be required for subdivisions that are plat adjustments, that is, where no new lots are created.

## Commentary

### Permitting and Planning Forms

The following planning and permitting forms are available from the PA DEP eLibrary at <http://164.156.71.80/wxod.aspx>. (Ref. 2)

### Sewage Facilities Planning Module Application Mailer

(3800-CD-WSFR0359)

Used by anyone proposing a new land development project. This is the first step in the permitting process. The information provided will be used by the DEP to determine if sewage facilities planning is necessary for your project, and if so, what forms are appropriate.

Municipal officials and the municipality's Sewage Enforcement Officer should be consulted in the development of the project.

### Pennsylvania Natural Diversity Inventory (PNDI)

The "Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation" (400-0200-001) requires that a PNDI database search be conducted regardless of which planning modules