

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Clean Water

DOCUMENT NUMBER: 385-2207-001

TITLE: Pennsylvania Sewage Facilities Act Program Guidance; Site Suitability and Alternatives Analysis Guidelines for New Land Development Proposing On-lot Sewage Disposal

EFFECTIVE DATE: Upon publication of notice as final in the *Pennsylvania Bulletin*

AUTHORITY: Sections 5 and 10 of the Pennsylvania Sewage Facilities Act, 35 P.S. §§ 705.5 and 750.10; and 25 Pa. Code Chapters 71 - 73

POLICY: It is the policy of the Pennsylvania Department of Environmental Protection (DEP or the Department) to consider a wide range of available on-lot sewage system technologies, including well-established technologies and emerging technologies, in the new land development (NLD) planning process set forth by the Pennsylvania Sewage Facilities Act (Act). Approval of the use of any on-lot technology during sewage facilities planning in Pennsylvania is contingent upon specific site conditions and assurances of adequate operation and maintenance (O&M) support mechanisms.

PURPOSE: The purpose of this guidance is to provide a systematic approach to sewage facilities planning for NLD when using on-lot sewage systems or when incorporating alternate on-lot sewage systems for long-term sewage disposal needs as described in the Act and in 25 Pa. Code Chapter 71 (relating to administration of sewage facilities planning program).

APPLICABILITY: This guidance applies to the preparation and review of Sewage Facilities Planning Modules, and to the use or site suitability assessment of individual or community on-lot sewage systems, including conventional, alternate, or experimental technologies.

DISCLAIMER: The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the DEP to give the rules in these policies that weight or deference. This document describes the framework within which the DEP exercises its administrative discretion. The DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 13 pages

I. DEFINITIONS AND ACRONYMS

A. Definitions

Act – Pennsylvania Sewage Facilities Act (35 P.S. §§ 705.1 - 750.20).

Act 26 – The Act of July 20, 2017 (P.L. 321, No. 26), amending the Pennsylvania Sewage Facilities Act

Advanced secondary on-lot sewage pretreatment – The level of pretreatment of sewage that achieves a reduction in the five-day carbonaceous biochemical oxygen demand (CBOD₅) and total suspended solids (TSS) both to levels at or below 10 mg/l.

Alternate sewage system – A method of demonstrated on-lot sewage treatment and disposal not described in 25 Pa. Code Chapter 72 (relating to administration of sewage facilities permitting program) or Chapter 73 (relating to standards for onlot sewage treatment facilities).

Conventional sewage system – A system employing the use of demonstrated on-lot sewage treatment and disposal technology in a manner specifically recognized in 25 Pa. Code Chapter 73. This term does not include alternate or experimental sewage systems.

Exemption from planning – Where new land development meets the criteria set forth in 25 Pa. Code § 71.51(b), sewage facilities planning is not required.

Exception to the requirement to revise – Where new land development meets criteria set forth in 25 Pa. Code § 71.55 (relating to exceptions to the requirement to revise the official plan for new land development), a sewage facilities plan revision is not required.

Experimental sewage system – An on-lot sewage treatment and disposal system that utilizes a method of treatment that is not described in 25 Pa. Code Chapter 72 or 73 which may be approved by DEP for the purpose of testing and observation.

On-lot sewage system component – A subsection or component of an on-lot sewage system such as: an absorption area, treatment tank(s), media filter(s), dosing tank, disinfection system, equalization tank(s), or any component part or functional unit necessary for an on-lot sewage system to function properly.

On-lot sewage system – An individual or community sewage system, whether publicly or privately owned, which uses a system of components for collecting, treating, and disposing of sewage into a soil absorption area or spray field, or by retention in a retaining tank.

Permittable – A conventional, alternate, or experimental on-lot sewage system which meets requirements set forth in 25 Pa. Code Chapter 73 or in the On-lot Alternate Technology guidance document.

Revision for new land development – A revision to a municipality's official plan resulting from a proposed subdivision as defined in the Act.

Shallow limiting zone – As it relates to the siting of absorption areas, excluding spray fields, the mineral soil depth to a seasonal high water table between 10 and 20 inches, or a mineral soil depth to a limiting zone as indicated by bedrock or coarse rock fragments with insufficient fine soil to fill voids that are located within 16 inches and less than 20 inches of the limiting zone.

Sinkhole – A closed natural depression in the ground surface caused by removal of material below the ground surface and either collapse or gradual subsidence of the surface into the resulting void.

Subdivision – The division or redivision of a lot, tract, or other parcel of land into two or more lots, tracts, parcels, or other divisions of land, including changes in existing lot lines. The enumerating of lots shall include as a lot that portion of the original tract or tracts remaining after other lots have been subdivided therefrom.

B. Acronyms and Abbreviations

Act – Act 537 Pennsylvania Sewage Facilities Act

Act 26 – Pennsylvania Sewage Facilities Act – Official Plans Act of Jul. 20, 2017, P.L. 321 No. 26

DEP – Pennsylvania Department of Environmental Protection

D&I – Development and Implementation

IRSIS – Individual Residential Spray Irrigation System

NLD – New Land Development

OAT – On-lot Alternative Technology

O&M – Operation and Maintenance

SEO – Sewage Enforcement Officer

SMP – Sewage Management Program

II. INTRODUCTION

Section 3 of Pennsylvania’s Clean Streams Law, 35 P.S. § 691.3 (Discharge of sewage and industrial wastes not a natural use), establishes that the discharge of sewage into the waters of the Commonwealth is a source of water pollution, is not “a reasonable or natural use of such waters, [and is declared] to be against public policy and to be a public nuisance.” The Act establishes the planning framework for preventing and eliminating pollution to the waters of the Commonwealth caused by the discharge of sewage. Together, the Clean Streams Law and the Act establish that effective treatment and disposal of sewage waste and the associated planning of sewage treatment and disposal systems is essential to protecting the quality of waters of the

Commonwealth and the economic value of residential and other properties. The regulations promulgated under the Act provide detailed requirements to carry out the sewage facilities planning policies outlined in section 3 of the Act, 35 P.S. § 750.3, (Declaration of policy).

When considering the use of on-lot sewage disposal systems in the creation of new lots during NLD, it is critical that the lot being created is capable of properly treating and disposing of all the sewage generated without creating a public health hazard or polluting waters of the Commonwealth. Each new lot must be able to address both its short-term and long-term sewage disposal needs.

All methods of on-lot sewage disposal that uses soil to renovate septic effluent within Pennsylvania are subject to the standards for on-lot sewage treatment facilities in 25 Pa. Code Chapter 73. Except for an IRSIS, conventional on-lot methods of sewage treatment rely on soil-based treatment for the majority of the septic effluent renovation.

When evaluating whether a site is suitable for on-lot sewage disposal, the following factors are considered:

- the slope of the landscape,
- other landscape features,
- the depth of soils available on the site, and
- the infiltrative capacity of the soil.

In addition, other conditions may be present that should be considered in evaluating the potential for pollution, such as high-density use or certain geologic conditions. As provided in 25 Pa. Code § 71.62 (relating to individual and community onlot sewage systems), the DEP may require additional site evaluations and information in the planning process to assist in assessing site conditions.

Pennsylvania's sewage facilities planning regulations, 25 Pa. Code Chapter 71, require a municipality to revise its official plan when a new subdivision is proposed, unless the proposal qualifies for an exemption or an exception from the planning requirements. *Act 26 authorizes the consideration of conventional and alternate on-lot sewage systems during the planning process when a plan supplement or plan revision for NLD is proposed.* Revisions for NLD must include, but are not limited to, the information specified in 25 Pa. Code § 71.52 (relating to content requirements – new land development revisions).

In general, the information required to be submitted for consideration provides details of the proposed supplement or revision and establishes that the proposal meets the requirements of the Act and its implementing regulations. Two of these requirements are that the proposal include, “An analysis of technically available sewage facilities alternatives identified by the municipality and additional alternatives identified by the Department...” (25 Pa. Code § 71.52(a)(3)), and the “Selection of an alternative which adequately addresses both the present and future sewage needs of the proposal...” (25 Pa. Code § 71.52(a)(4)). Subchapter D (Official plan requirements for alternative evaluations) of Chapter 71 outlines the official plan requirements for these alternative evaluations. The alternatives evaluation also requires municipalities to evaluate and implement options to provide for the proper operation and maintenance (O&M) of on-lot sewage systems to ensure the long-term sanitary treatment and disposal of sewage.

On July 20, 2017, the Pennsylvania Legislature enacted Act 26, an amendment to the Act, which – among other things – revised the NLD sewage planning process to allow for the consideration of on-lot alternative technologies (OATs) at the planning stage. Of note, Act 26 added two subsections to section 5 of the Act. With respect to sewage facilities planning, Act 26 amended section 5 of the Act by adding subsection c.1, which provides, “When proposing a plan supplement or plan revision for new land development, the applicant may submit, and the DEP shall accept, for the purpose of satisfying general site suitability requirements, any conventional or alternate on-lot system permittable by a sewage enforcement officer.” This new provision establishes an additional path to meet general site suitability criteria by allowing for the consideration of the use of a DEP-classified OAT¹ sewage system during the NLD planning process on sites that do not meet general site suitability criteria, as per 25 Pa. Code § 71.62 and Chapter 73, if the system(s) is capable of being permitted by a sewage enforcement officer (SEO). The DEP’s OAT guidance document outlines the general site suitability and permitting requirements for alternate systems or components approved by the DEP.

In practice, municipalities commonly forego “general site suitability” testing in favor of detailed lot-by-lot site testing during the planning portion of project development. This ensures that each new lot created has an available method of sewage disposal. During the permitting process, an SEO must test each lot applying for an on-lot sewage disposal permit to evaluate the depth, type and permeability of the soils and landscape features to determine what system(s) can be used on the lot as provided in 25 Pa. Code § 72.41. In those instances where a site does not meet general site suitability requirements established in 25 Pa. Code § 71.62 and Chapter 73, a lot-by-lot analysis must be performed during sewage planning to ensure that all site conditions and permitting requirements for the specific OAT proposed can be and will be met at the permitting stage.

O&M is essential to ensure long-term effective treatment and disposal of sewage waste and to prevent pollution to waters of the Commonwealth after the permitting and installation of an on-lot sewage system. The sewage management regulation at 25 Pa. Code § 71.71 (relating to general requirements) states, “Municipalities are required to assure the proper operation and maintenance of sewage facilities within their borders. Proper operation and maintenance of sewage facilities is essential to the provision of adequate sewage treatment and disposal over the functional life of a sewage treatment system. Municipalities shall, therefore, address long-term operation and maintenance in official plans and revisions to official plans.” The regulation goes on to state, “The establishment of a sewage management program as part of an official plan or revision to an official plan provides a method of assuring proper operation and maintenance of sewage facilities.” If not currently addressed in a municipal sewage management program, O&M requirements for conventional systems should be established during sewage planning. O&M requirements for OATs are detailed in the technology-specific OAT guidance document. The OAT guidance document is the document detailing planning, permitting, siting, design, and operation and maintenance requirements for each specific approved OAT.

The procedures outlined in this guidance document address site condition variables encountered in the field that are pertinent to the planning of on-lot sewage system technologies. This guidance document is intended to explain the sewage planning requirements for on-lot site suitability testing and alternatives analysis.

¹ DEP classifies OATs under 25 Pa. Code § 73.72 (relating to alternate sewage systems). Classification of an OAT is a statewide approval establishing that the specific technology meets the DEP’s standards for an alternate technology.

III. SCOPE

The four (4) goals of this document are to:

1. Provide a step-by-step guide to sewage facilities planning for NLD when using on-lot sewage systems;
2. Incorporate OATs, as required by Act 26, into the sewage facilities planning process for NLD;
3. Clarify how a site may meet general site suitability in sewage facilities planning; and
4. Clarify how to use the planning module components and forms for on-lot sewage facilities planning.

IV. PLANNING PROCESS FOR NEW LAND DEVELOPMENT USING ON-LOT SEWAGE SYSTEMS

A. On-lot General Site Suitability

1. The following site suitability testing guide clarifies the procedures established in 25 Pa. Code Chapters 71 and 73 and provides a systematic approach to making site suitability determinations and conducting comprehensive alternatives analyses for NLD projects that propose the use of on-lot sewage systems, including conventional, alternate, and experimental technologies.
2. The regulations establish a process to demonstrate compliance with general site suitability requirements for NLD using on-lot sewage systems.
3. Act 26 provides the legal authority to use OATs in the sewage facilities planning process for NLD even though regulatory provisions for general site suitability may not be strictly satisfied; planning and permitting requirements for OATs are detailed in the OAT guidance document. Two examples of when general site suitability regulatory provisions might not be satisfied are:
 - a. When examination of the soil profile reveals a limiting zone within 20 inches of the mineral soil surface; or
 - b. When a percolation test is not performed or cannot be performed.
4. Proposals for alternate on-lot systems using absorption areas on soils with shallow limiting zones that do not meet the general site suitability as described in regulation must be submitted on a plan supplement or a plan revision for NLD (i.e., Component 2).

B. The planning process for NLD consists of the following five (5) steps.

1. Step One – Site investigation

a. The proposed NLD must first be evaluated to determine if it is potentially suitable for the use of on-lot sewage disposal. The regulations at 25 Pa. Code §§ 73.12 (relating to site location), 73.13 (relating to minimum horizontal isolation distances), and 73.14 (relating to soil investigation) provide the on-lot sewage disposal absorption area requirements or IRSIS spray suitability requirements. If the site investigation reveals the proposed subdivision has no suitable areas per 25 Pa. Code §§ 73.12 or 73.13 to conduct the necessary soil evaluation in Step IV.B.1.b.(4) below, then the proposed NLD is unsuitable for the use of on-lot sewage systems, and one of the following options may be available for the lot(s):

- (1) A holding tank, 25 Pa. Code § 71.63 (relating to retaining tanks);
- (2) A small flow treatment facility, 25 Pa. Code § 71.64 (relating to small flow treatment facilities); or
- (3) Connection to a centralized collection, conveyance, and sewage treatment system.

b. If an area within the proposed subdivision is capable of being tested for a proposed absorption area or spray field, then:

- (1) Determine the maximum slope. Slope will limit the type (or types) of absorption area technology (or technologies) available for the lot;
- (2) Determine the isolation distances;
- (3) Estimate the sewage flow; and
- (4) Complete a soil evaluation.
 - (a) Complete soil probe testing to determine the soil profile and depth to the limiting zone(s). The number of soil probes will vary depending upon the soil conditions on the lot, but, as stated in 25 Pa. Code § 73.14(a), the minimum number of required soil probes per absorption area is one (1) for on-lot conventional sewage systems. For on-lot alternate sewage systems the minimum number of soil probes is detailed in the OAT guidance document. As stated in 25 Pa. Code § 73.14(b), the minimum number of soil probes for a spray field is four (4).

- (b) Based on the depth to limiting zone and the preliminary on-lot sewage systems being considered, conduct the following:
 - 1) A percolation test under 25 Pa. Code § 73.15 (relating to percolation tests) to determine the average percolation rate;² or
 - 2) A soil morphological evaluation to determine the infiltration loading and hydraulic linear loading rates. The OAT guidance document details the required testing.
- (c) If the soil evaluation reveals any of the following conditions, the site is unsuitable for an on-lot sewage system:
 - 1) A limiting zone with a soil depth less than 10 inches to a seasonal high water table and/or less than 16 inches to rock; or
 - 2) When required to perform a percolation test, the average percolation rate expressed in minutes per inch (mpi) is observed to be less than 3 mpi or greater than 180 mpi; or
 - 3) When required to perform a soil morphological evaluation, the evaluation reveals soil types, as per the “Tyler Table”³, with infiltration loading rates expressed in gallons per square feet per day (gal/ft²/day) less than 0.2 gal/ft²/day or greater than 1.6 gal/ft²/day.
- (d) Continue soil evaluations on the lot(s) until testing has determined an area suitable for an on-lot sewage system, and a replacement area if required. If unable to locate an area suitable for an on-lot sewage system, there may be other options available for the sewage disposal needs of the NLD; refer to Step IV.B.1.a.(1) through (3).

2. Step Two – Evaluate on-lot sewage system options

- a. If the limiting zone has a depth of 10 inches or more to a seasonal high water table and 16 inches or more to rock, the lot is suitable for an IRSIS; for the proposed spray field, slopes of 4% or less for non-food producing

² Note that a percolation test is prohibited on sites with shallow limiting zones.

³ Tyler, E. J. and Kramer Kuns, L. 2000. “Designing with Soil: Development and Use of a Wastewater Hydraulic Linear and Infiltration Loading Rate Table.” National Onsite Wastewater Recycling Association (NOWRA) 2000 Conference Proceedings. Grand Rapids, Michigan. http://www.soils.wisc.edu/sswmp/SSWMP_4.42.pdf.

agriculture areas, 12% or less for grassy areas, or 25% or less for forested areas must be observed during testing or the site is unsuitable for an IRSIS. 25 Pa. Code § 73.163 (relating to spray fields). To size the spray field area, see 25 Pa. Code § 73.16 (relating to absorption and spray field area requirements), Table B.

- b. If the limiting zone has a depth of 10 inches or more to a seasonal high water table and 16 inches or more to rock, the lot may also be suitable for an on-lot sewage system that meets advanced secondary on-lot sewage pretreatment. A soil morphological evaluation must be conducted to further evaluate site suitability and to size the absorption area; see the DEP's OAT guidance document for advanced on-lot treatment technologies and/or distribution technologies to size the primary and replacement absorption areas. See 25 Pa. Code § 73.14
- c. Where the limiting zone depth is at least 20 inches but less than 60 inches, the lot may be suitable for an on-lot sewage system if the following procedures are followed:
 - (1) For an on-lot alternate sewage system, a percolation test or soil morphological evaluation must be conducted to further evaluate site suitability and to size the absorption area; see the DEP's OAT guidance document to properly size the absorption area; or
 - (2) For an elevated sand mound, see 25 Pa. Code § 73.55 (relating to elevated sand mounds) for design criteria of these systems. For an elevated sand mound, a percolation test must be conducted to further evaluate site suitability and to size the absorption area; a percolation rate between 3 mpi and 180 mpi, and slopes of 12% or less, must be observed during testing or the area is unsuitable for an elevated sand mound. To size the absorption area based on the results of the percolation test, see 25 Pa. Code § 73.16, Table A.
- d. Where the limiting zone depth is 60 inches or more, the lot may be suitable for an on-lot sewage system if the appropriate procedures are followed for the systems listed above in subsections IV.B.2.a, b, and c or for the two systems listed immediately below:
 - (1) Standard trenches – For design criteria for standard trenches, see 25 Pa. Code § 73.52 (relating to standard trenches). For standard trenches, a percolation test must be conducted to further evaluate site suitability and to size the absorption area; a percolation rate between 6 mpi and 90 mpi, and slopes of 25% or less, must be observed during testing or the area is unsuitable for standard trenches. See 25 Pa. Code § 73.15 on how to conduct a percolation test and 25 Pa. Code § 73.16, Table A to size the absorption area based on the percolation test results.

- (2) Seepage beds – For design criteria for seepage beds, see 25 Pa. Code § 73.53 (relating to seepage beds). For seepage beds, a percolation test must be conducted to further evaluate site suitability and to size the absorption area; a percolation rate between 6 mpi and 90 mpi, and slopes of 8% or less, must be observed during testing or the area is unsuitable for seepage beds. See 25 Pa. Code § 73.15 on how to conduct a percolation test and 25 Pa. Code § 73.16, Table A to size the absorption area based on the percolation test results.
 - e. Where the limiting zone depth is 72 inches or more, the lot may be suitable for an on-lot sewage system if the appropriate procedures are followed for the systems listed above in subsections IV.B.2.a, b, c, and d or for subsurface sand filter beds and trenches discussed here. For design criteria for subsurface sand filter beds and trenches, see 25 Pa. Code § 73.54 (relating to subsurface sand filter beds and trenches). For subsurface sand filter beds and trenches, a percolation test must be conducted to further evaluate site suitability and to size the absorption area; a percolation rate between 3 mpi and 90 mpi, and slopes of 8% or less for beds and 25% or less for trenches, must be observed during testing or the area is unsuitable for subsurface sand filter beds and/or trenches. See 25 Pa. Code § 73.15 on how to conduct a percolation test and 25 Pa. Code § 73.16, Table A to size the absorption area based on the percolation test results.
3. Step Three – Determine if additional permeability testing or hydrogeologic evaluation is required for the lot
 - a. Under 25 Pa. Code § 71.62(c)(1), additional permeability testing is required when the proposed NLD includes a large-volume on-lot sewage system or a community on-lot sewage system with a sewage flow in excess of 10,000 gallons per day (gpd).
 - b. Additional permeability testing may be required when any of the following is proposed:
 - (1) The proposed development includes a total absorption area greater than 5,000 square feet; or
 - (2) The initial site evaluation contained soil profiles or geology which revealed slowly permeable conditions below the depth at which the percolation test was performed.
 - c. Under 25 Pa. Code § 71.62(c)(2), a preliminary hydrogeologic evaluation is required when the use of subsurface soil absorption areas is proposed and one (1) or more of the following conditions is present:
 - (1) The developer proposes a large-volume on-lot sewage system (i.e., with sewage flow greater than 10,000 gpd);

- (2) The developer proposes a subdivision of more than fifty (50) equivalent dwelling units with a density of more than one (1) equivalent dwelling unit per acre;
 - (3) The DEP has documented that the quality of water supplies within one-quarter (1/4) mile of the proposed development exceeds five (5) parts per million (ppm) nitrate-nitrogen; or
 - (4) The DEP has determined that known geological conditions for the proposed site may contribute to the potential for groundwater pollution from the proposed on-lot sewage systems.
- d. Under 25 Pa. Code § 71.62(c)(4), detailed hydrogeologic studies may be required by the DEP when the preliminary hydrogeologic evaluation identifies a potential for a conflict between the proposal and existing or potential future uses of groundwater in the area.
 - e. If the proposal has any of the conditions requiring or potentially requiring further permeability testing or hydrogeologic studies, contact the DEP for further information.
4. Step Four – Complete an alternatives analysis when preparing a revision for NLD for on-lot sewage systems module (i.e., Component 2)
- a. Planning for NLD requires a comprehensive alternatives analysis to determine a suitable on-lot sewage system or systems for the lot or lots being created and to assure the long-term sanitary collection, treatment, and disposal of sewage. At this point, with the completion of Steps 1 through 3, the proposed lot(s) should have passed the site suitability tests for the installation of an on-lot sewage system or systems. See 25 Pa. Code § 71.61 (relating to general).
 - b. 25 Pa. Code § 71.52 contains the required elements for evaluating and selecting suitable on-lot sewage treatment technologies. The relationship of the proposed development to land uses, existing sewage needs, proposed sewage facilities, and sewage management programs (SMPs) in the area must be evaluated. The alternatives evaluation also requires municipalities to plan for and assure the long-term sanitary treatment and disposal of sewage and to assure the proper O&M of on-lot sewage systems.
 - c. Conventional, alternate, or experimental on-lot sewage systems or components may be considered for evaluation in this step. Experimental on-lot sewage systems or components are limited to components or systems that have completed Step One of the DEP's *On-lot Wastewater Technology Verification Protocol* (385-2208-003). The use of experimental systems requires replacement areas and monitoring pursuant to 25 Pa. Code § 73.71 (relating to experimental sewage systems).

- d. O&M requirements must be considered during the alternatives analysis. The type of onlot systems evaluated dictate the required O&M. O&M requirements for alternate systems are found in the OAT guidance documents. O&M requirements for conventional system are found in 25 Pa. Code Chapters 71 and 73.
- e. An NLD proposing an alternate on-lot sewage system that allows for the reduction in the size of the absorption area or spray field should show in planning – prior to the calculation of the reduction – that there is sufficient area for installation of a primary and, when necessary, a full-sized replacement absorption area or spray field on each lot. A deed restriction or other action is necessary to protect the replacement absorption area or spray field from damage that would make it unsuitable for future use. The replacement absorption area should be delineated on the plot plan with metes and bounds.
- f. Except when proposing an IRSIS, the Act indicates that NLD proposals concerning development for sites with shallow limiting zones must show in planning that the proposal is permissible (i.e., meets all the permitting requirements for the DEP’s approval for the specific absorption area technology).
- g. Once the evaluation is complete, the applicant may select one (1) or more on-lot sewage treatment technology to solve the sewage disposal needs of the NLD. The applicant must support this choice with documentation that shows that the alternative is technically, environmentally, and administratively acceptable. The proposal must include the following components.
 - (1) Identification of any on-lot sewage system technologies that adequately address both the present and future sewage needs of the proposal.
 - (2) Identification of how the long-term sewage disposal needs will be met for all lots within the proposed NLD, including the residual tract.
 - (a) If the municipality has an established SMP, or has an SMP under development as per 25 Pa. Code § 71.74 (relating to Department responsibilities to require sewage management programs), the proposal must describe the requirements in the SMP and how those requirements impact the proposed NLD.
 - (b) If the municipality does not have an SMP, the proposal must describe how the municipality will ensure long-term sewage disposal through either an O&M agreement for the life of the proposed system(s) or by siting a replacement

absorption area or spray field. A deed restriction or other action may be necessary to protect the replacement absorption area or spray field from damage that would make it unsuitable for future use. The replacement absorption area should be delineated on the plot plan with metes and bounds.

(c) A description of O&M requirements for the selected alternative(s). Identification of who will be the owner(s) of the on-lot sewage system(s), and who will be responsible for the O&M of the on-lot sewage system(s).

(d) The ultimate responsibility under the Act, for proper sewage management lies with the municipality. The delegated local agency or the DEP may require a more extensive analysis of the available choices relative to ownership and O&M of the on-lot sewage system(s).

(3) Execute documentation on whether the NLD proposal can be implemented. Documentation will include, but is not limited to, institutional arrangements or agreements with other persons or entities to provide services necessary for implementation of the proposal.

5. Step Five – Submit the NLD proposal to the municipality for review

After completing Steps 1 through 4, submit the NLD proposal, on the appropriate DEP forms, to the municipality for review. Once the municipality has acted favorably on the proposal, the municipality will submit the proposal to the DEP for review.