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DEPARTMENT OF ENVIRONMENTAL PROTECTION Bureau of Water Standards and Facility Regulation

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TITLE: Act 537 Program Guidance; Sewage Management Activities

EFFECTIVE DATE: Upon final publication in the *PA Bulletin*

AUTHORITY: Act 537 of 1966, the Pennsylvania Sewage Facilities Act (as amended), and 25 Pa. Code Chapter 71, 72 and 73.

POLICY: It is the policy of the Department of Environmental Protection (DEP), under the Pennsylvania Sewage Facilities Act (Act 537), to enforce existing regulations requiring municipalities, in official plans and revisions to official plans, to identify, evaluate and implement effective measures for assuring the proper, long-term operation and maintenance needs of existing and proposed sewage facilities within a municipality.

PURPOSE: The purpose of this guidance is to assure the appropriate and consistent application of compliance authority provided to DEP by the Sewage Facilities Act, to exercise that authority which may be necessary, and to assist municipalities and local agencies in satisfying their responsibilities under the Act by assuring operation and maintenance for onlot sewage treatment facilities via sewage management programs and/or other appropriate measures.

APPLICABILITY: This guidance is intended to provide for effective and consistent administration of the program across the Commonwealth.

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

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DEFINITIONS: See Title 25 Pa. Code, Chapter 71, Chapter 72 and Chapter 73

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I. General

- A. The program guidance, “New Directions for the 21st Century” (362-2208-004), details a number of intended and unintended environmental protection and public health impacts precipitated through past policy decisions. It further cites the need for policy changes that more effectively implement current requirements regarding operation, maintenance, and management with onlot and other sewage facilities and that better position the Commonwealth to be prepared for and take advantage of evolving situations and developments occurring at the state and federal levels.
- B. There are increasing public demands in Pennsylvania for the siting of onlot sewage treatment systems in more marginal soil conditions and in sensitive stream and watershed settings. In response, onlot and other sewage treatment system designs have become increasingly sophisticated and complex. The result has been a very high quality of effluent discharge from engineered, mechanical pretreatment components and more technically flexible requirements for soil renovation as a part of treatment.
- C. However, these advances make critical the need to consistently and effectively assure proper operation and routine maintenance of these more advanced technologies. Without consistent and effective attention to proper operation and routine maintenance, effluent quality will most certainly degrade as the performance of poorly maintained systems deteriorates. Very significant, deleterious public health and environmental impacts are likely when these systems are placed in more marginal and sensitive siting conditions.
- D. As our understanding of environmental and public health impacts has advanced it has become increasingly clear that even conventional septic systems in remote rural settings must be operated and maintained to avoid harm to drinking water sources, watersheds, sensitive environments, and critical habitat. All forms of sewage treatment technology have potential as valuable tools for meeting public needs and aiding appropriate community development. However, this remains true only if these technologies can be confidently applied and consistently relied upon to perform as needed and expected.
- E. Thus, parallel with the fact that management of onlot sewage facilities to assure long-term operation and maintenance is currently required, appropriate and assured maintenance is necessary and integral to advanced and all forms of onlot sewage treatment if the Commonwealth is to realize performance outcomes, instill public confidence, recognize these technologies as true and permanent wastewater treatment infrastructure. These outcomes are vitally needed towards effectively supporting municipal comprehensive planning and sustainable development goals.
- F. This guidance clarifies DEP’s duties and responsibilities for requiring operation and maintenance assurances within the sewage facilities planning process so that municipalities will meet their obligations to ensure the long-term performance of sewage facilities operating within their borders.

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- G. Further, this guidance articulates education and assistance activities related to municipal implementation of measures for sewage management. These include data collection activities related to sewage management programs and communication measures to facilitate effectiveness concerning sewage facility operation, maintenance and management.
- H. The anticipated goals from these activities include the following:
- Optimal performance of onlot and other sewage treatment systems within the Commonwealth as a result of assured operation and maintenance.
 - Protection, by proposed and existing onlot sewage treatment, of: public health and safety, of the environment, and of sensitive streams and watersheds.
 - Support for municipal comprehensive planning and management decisions and sustainable development outcomes. Within this goal the following is expected:
 - Properly sited onlot sewage treatment systems can be relied upon as permanent, capable infrastructure
 - Alternatives utilizing onlot sewage treatment systems have become fully reliable, permanent alternatives to centralized sewage collection and treatment
 - Municipalities can, with confidence, utilize the full range of appropriate sewage treatment alternatives (onlot, centralized, or combinations of the two) to support community comprehensive planning and management decisions and community quality of life goals

II. Implementation of Existing Authority and Requirements

All sewage facilities, existing and proposed, require proper, regular operation and maintenance to assure their long-term performance. Authority has been established in the Sewage Facilities Act and structured within the regulations promulgated at Title 25, Pa. Code Chapter 71 to require assurance of proper operation and maintenance of sewage facilities via sewage management programs and/or other operation and maintenance assurance measures (see Appendix A - Existing Authority and Requirements Relating to Assurance of Long Term Operation and Maintenance of Sewage Facilities).

There is an overarching requirement in § 71.71 that municipalities address long-term operation and maintenance in official plans and revisions to official plans so as to assure the proper operation and maintenance of sewage facilities within their borders. Further, in all cases where official plans or revisions to official plans propose use of individual and community onlot systems as a feasible alternative, § 71.62(d) requires that municipalities evaluate and implement options for establishing an institutional framework to assure proper operation and maintenance for the onlot systems being proposed.

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The first step are the operation and maintenance requirements in § 71.52 relating to official plan revisions for new land development. These are: (1) describe the operation and maintenance requirements for onlot sewage treatment systems required by Subchapter E, and (2) designate the person responsible for operation and maintenance activities and the legal and financial arrangements necessary for assumption of this responsibility.

Plan revisions for new land development must also describe the relationship of the proposed development to sewage facilities and sewage management programs in the planned area so that opportunities to meet the operation and maintenance assurance requirements through existing sewage management programs are evaluated.

Operation and maintenance assurances for new land development proposals where planning exemptions or exceptions are at issue are addressed in the technical guidance document, *Act 537 Program Guidance; Site Suitability and Alternatives Analysis Guidelines for New Land Development Proposing Onlot Sewage Disposal* DEP ID: 362-2207-XXX.

The second step concerns sewage disposal needs areas. Section 71.21 requires that official plans and official plan revisions for meeting specific areas of sewage disposal need identify available alternatives to provide improved sewage facilities for each area of sewage disposal need through: (1) the continued use of existing facilities through improved operation and maintenance, and (2) the need for a sewage management program to assure the future operation and maintenance of existing and proposed sewage facilities.

The third step is the requirement in § 71.74 that requires municipalities to revise their official plan to evaluate the feasibility of establishing a sewage management program or the inclusion of sewage facilities in an existing sewage management program whenever the Department determines that: (1) existing sewage facilities within the municipality are not being properly operated and maintained, (2) a revision for new land development is submitted which does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed facilities, or (3) the official plan or revision shows that existing or new sewage facilities need periodic inspection, operation or maintenance to provide long-term proper operation. Further, under § 71.75, a private request may be filed requesting that the Department order a municipality to revise its official plan when it can be shown that: (1) existing sewage facilities within the municipality are not being properly operated and maintained under, or (2) a revision for new land development does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed facilities.

A. Review of Sewage Facilities Official Plans and Official Plan Revisions for Operation and Maintenance Assurances

It is the policy of the Department that review and approval of official plans and revisions to official plans shall require that municipalities incorporate all

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requirements for the assurance of long-term operation and maintenance of sewage facilities.

Guidelines

- As part of their review of official plans and official plan revisions, Field Office program personnel will evaluate, determine to be incomplete, or, as necessary, disapprove submissions that:
 - Do not, as a part of alternative evaluation, adequately evaluate and demonstrate a method or ability to implement options for establishing an institutional framework to assure proper operation and maintenance for proposed individual and community onlot sewage systems where these systems are proposed for use as a feasible alternative. [Reference: § 71.62(d)]
 - Do not fully describe the specific operation and maintenance required for the systems in question.
- Where review of official plan revision is for new land development, Field Office program personnel will determine to be incomplete, or, as necessary, disapprove submissions that:
 - Do not adequately describe required operation and maintenance requirements for onlot sewage treatment systems required by Subchapter E (relating to sewage management programs). [Reference: § 71.52(a)(1)(vi)]
 - Do not adequately designate the person responsible for operation and maintenance activities and the legal and financial arrangements necessary for assumption of this responsibility. [Reference: § 71.52(a)(1)(vii)]
 - Do not adequately describe the relationship of the proposed development to other existing sewage needs, to proposed sewage facilities, and to sewage management programs in an area delineated by the municipality and/or do not adequately identify existing sewage management programs in the area. [Reference: § 71.52(a)(2)(iii)]
- Where a new land development proposal has planning exemptions or exceptions at issue, Field Office program personnel should refer to the technical guidance document, *Act 537 Program Guidance; Site Suitability and Alternatives Analysis Guidelines for New Land Development Proposing Onlot Sewage Disposal* DEP ID: 362-2207-XXX, for guidance with how to address operation and maintenance assurances.
- Where review of official plans or official plan revisions is in regard to sewage disposal needs areas, Field Office program personnel will determine to be

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incomplete, or, as necessary, disapprove submissions that, where applicable to the specific planning needs of the municipality as determined by the Department:

- Do not identify alternatives which are available to provide for new or improved sewage facilities for each area of planning need including the potential for the continued use of existing municipal or nonmunicipal sewage facilities through improved operation and maintenance, and the need for a sewage management program to assure the future operation and maintenance of existing and proposed sewage facilities. [Reference: § 71.21(a)(4)(ii)(C) and § 71.21(a)(4)(iv)]

B. Requiring Sewage Management Programs

The Department shall require municipalities to revise their official plan to evaluate the feasibility of establishing sewage management programs, include sewage facilities in existing sewage management programs, or to establish sewage management programs. It is the policy of the Department that municipalities will comply with applicable sewage management regulations.

Guidelines

- Field Office program personnel will require municipalities to revise their official plans to evaluate the feasibility of establishing a sewage management program, the inclusion of sewage facilities in an existing sewage management program, or to establish a sewage management program for the types of facilities in question whenever, as applicable, an official plan or official plan revision shows, the Department determines, or a formal private request shows that:
 - Existing sewage facilities within the municipality are not being properly operated and maintained [Reference: § 71.73(b), § 71.74(a)(1) and § 71.75(1)]
 - Existing sewage facilities within the municipality are not properly functioning because of inadequate operation and maintenance. [Reference: § 71.73(b)]
 - Existing or new sewage facilities need periodic inspection, operation or maintenance to provide long-term proper operation [Reference: § 71.73(b) and § 71.74(a)(3)]
 - A revision for new land development does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed sewage facilities. [Reference: § 71.74(a)(2) and § 71.75(2)]

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- Field Office program personnel will require that official plans or official plan revisions:
 - Which propose the use of small flow treatment facilities establish specific responsibilities for operation and maintenance of the proposed system(s) including documentation that an effective implementation of one or a combination of the operation and maintenance requirements in § 71.64(c)(5)(i-vii) have been established or approved in writing by the municipality. [Reference: § 71.64(c)(5)]
 - Proposing construction of Department permitted nonmunicipal sewage facilities, or community onlot sewage systems permitted by a local agency (other than small flow treatment facilities) for existing needs areas or new land development evaluate the options available in § 71.72(a)(1-9) to assure the long-term proper operation and maintenance of the proposed sewage facilities and that the municipality requires implementation of the options in a manner that is deemed to be effective. [Reference: § 71.72(a)]
 - Proposing sewage management programs for sewage facilities permitted by the local agency include as a minimum the provisions required in § 71.73(b)(1-8). [Reference: § 71.73(b)]
- Due to considerations affecting municipal enforcement actions, Field Office program personnel should strongly impress upon municipalities that sewage management programs cover the entire municipality or multi-municipal area and should be structured so as to be applicable to all onlot and other pertinent sewage facilities.

C. Minimum Operation and Maintenance Determinations for Sewage Facilities

DEP is authorized to determine generally what operation and maintenance is necessary for these sewage facilities. Section 71.73(b) allows for the Department to determine operation and maintenance needs for sewage facilities permitted by local agencies, and § 71.74(a)(1) allows DEP to determine operation and maintenance needs for all existing or proposed sewage facilities within a municipality in relation to determining that these facilities are not being operated or maintained properly. Section 71.74(a)(2) allows the Department to make such determination as part of its assessment that a plan revision for new land development does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed facilities. Similarly § 71.75(1), allows DEP to make determinations of operation and maintenance needs in relation to assessing the veracity of a private request.

To date, such determinations by DEP have been conducted largely on an individual and situational basis. However, in order that the operation and maintenance needs

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of sewage facilities be clearly understood and fully and consistently addressed, the Department has begun and must expand a visible and comprehensive articulation of its determinations of minimum operation and maintenance needs for onlot sewage systems and other similar sewage facilities. Therefore, by virtue of documentation included in this guidance, and which may be revised and published separately from this guidance in the future, and with reference to documentation in existing technical guidance documents, DEP is acting to formally identify specific minimum operation and maintenance needs for those technology components and systems that make up onlot and other sewage facilities.

Determination is provided in this guidance for conventional onlot treatment systems in Appendix B - Minimum Operation and Maintenance Needs for Sewage Facilities Treatment Components When Used With Conventional Onlot Treatment Systems.

Department determination of minimum operation and maintenance needs for alternate onlot treatment systems and small flow treatment facilities is made respectively in the:

- *Alternate Systems Guidance* DEP ID: 362-0300-007
- *Small Flow Treatment Facilities Manual* DEP ID: 362-0300-002

These determinations help to clarify the requirements of § 71.21(a)(4)(ii)(C), § 71.21(a)(4)(iv), § 71.52(a)(1)(vi), and § 71.62(d) and to better and more consistently articulate the requirements of § 71.73(b), § 71.74(a), and § 71.75.

These determinations further serve to:

- More fully and clearly delineate DEP's regulatory requirements and municipalities' compliance obligations for assuring the proper operation and maintenance of sewage facilities through sewage management.
- Provide municipalities with visible operation and maintenance targets for structuring the elements of sewage management programs and/or other operation and maintenance assurance measures.
- Improve the ability of DEP to evaluate the content and quality of municipal operation, maintenance, and management proposals in planning.
- Improve the ability of DEP and municipalities to determine the adequacy of operation and maintenance assurances as applied or proposed concerning existing sewage facilities within municipal jurisdictions.

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Guidelines

- DEP program personnel and municipalities should be aware that a sewage management program or operation and maintenance assurance measure(s) should be deemed acceptable only if the program or measure(s) adequately and effectively accomplishes over the long term the operation and maintenance needs described, determined, or required for every treatment component making up any and all sewage facilities subject to the sewage management program or operation and maintenance assurance measure(s).
- DEP program personnel are encouraged to share these determinations with municipalities. Municipalities should use these determinations as guidelines for structuring descriptions and proposals relating to operation, maintenance, and/or management as a part of official plans or revisions to official plans.
- Field Office program personnel should use these determinations as minimum guidelines for determining the adequacy of operation and maintenance descriptions or proposals provided as a part of official plans or official plan revisions.
- Field Office program personnel should use these determinations as an aid to assessing the adequacy and effectiveness of administrative, technical, or legal functions existing or proposed to carry out operation and maintenance with sewage facilities.
- Field Office program personnel should use these determinations as an aid in assessing the veracity of private requests related to operation and maintenance.
- DEP program personnel and municipalities should be aware that these determinations are intended as minimum guidelines for operation and maintenance needs with treatment components when used with specific systems within the indicated system classifications. These determinations are not meant to preclude other appropriate operation or maintenance activities or limit operation and maintenance activities to those herein stated for any technology where such activities are considered reasonable and/or necessary.

D. Determining the Effectiveness of Sewage Management Related Institutional Frameworks, Options, or Legal and Financial Arrangements

It is intended throughout the requirements pertaining to operation and maintenance that the institutional frameworks, chosen technical and administrative options, and legal and financial arrangements for implementing sewage management programs or other operation and maintenance assurance measures should be effective towards assuring the long-term operation and maintenance of onlot and other sewage facilities.

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While there are numerous options or arrangements that can be effective, Field Office program personnel should strive to determine and assure that the institutional frameworks, options, financial and legal arrangements proposed or existing as a part of sewage management programs and other operation and maintenance assurance measures are effective towards assuring the long-term operation and maintenance needs of the sewage facilities they regulate.

Guidelines

- As a part of their review of official plans and plan revisions with regard to documentation and proposals for sewage management or other operation and maintenance assurance measures, Field Office program personnel will assess the effectiveness of the institutional frameworks, selected options, financial and legal arrangements associated with proposed or existing sewage management programs and any other operation and maintenance assurance measures. These frameworks, options, and arrangements must demonstrate the ability to assure the long-term operation and continuing maintenance of the sewage facilities subject to the sewage management program or operation and maintenance assurance measures.
- Criteria against which Field Office program personnel may consider such evaluations or demonstrations of ability concerning an effective institutional framework, option set, legal and/or financial arrangement may include, but not be limited to:
 - Sustainability – rational demonstrations of the technical, managerial, and financial capability and longevity of the institutional framework or arrangement.
 - Responsibility – rational demonstrations of the inherent ability of the institutional framework or arrangement to consistently apply expertise, sound practice, good judgment, and appropriate decision making.
 - Ability for assessment and oversight – rational demonstrations of the ability of the institutional framework or arrangement to effectively inventory and assess the onlot sewage systems under its jurisdiction and assess and audit operation and maintenance practices with regard to these systems as being adequate to system needs, in force, and appropriately executed within best practice appropriate to the systems.
 - Ability for control – rational demonstrations of the ability of the institutional framework or arrangement to apply standards and requirements and execute enforcement sufficiently and effectively to ensure that proper operation and maintenance practices are implemented and maintained.

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III. Compliance Tracking and Sewage Management Program Performance Assessment

In order for operation and maintenance assurances and sewage management programs to be effective, the Department must conduct follow up oversight to ensure that these measures are implemented by the municipality as adopted and approved. In addition, the Department should evaluate whether or not the measures are effective towards assuring adequate long-term operation and maintenance for sewage facilities.

A. Sewage Management Implementation Evaluations and Compliance Tracking

Sewage Management Implementation Evaluations are intended as an assessment tool to be conducted with municipalities obligated as a part of an approved official plan or plan revision to implement a sewage management program or other operation and maintenance assurance measures. The purpose of the Sewage Management Implementation Evaluation is to determine whether:

- The sewage management program and/or other operation and maintenance assurance measures are being implemented in accordance with the approved implementation schedule,
- The sewage management program elements and/or other operation and maintenance assurance measures are being implemented as adopted and approved, and that
- The elements and/or measures are adequate and effective in assuring the continuing operation and maintenance needs of the sewage facilities they regulate.

Guidelines

- Central Office program staff shall develop documents and procedures for the conducting of Sewage Management Implementation Evaluations.
- Field Office supervisory and/or management personnel shall establish a rationale for randomly conducting Sewage Management Implementation Evaluations. The number of evaluations annually selected shall be based on staffing levels and on the number of municipalities implementing sewage management programs and/or other measures for assuring operation and maintenance as part of official plans or plan revision approvals.
- Sewage Management Implementation Evaluations should occur at appropriate periods after the sewage management program and/or other operation and maintenance assurance measures are fully operational.

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- Sewage Management Implementation Evaluations should augment established routine follow up activities and may be conducted in conjunction with follow up for other planning implementation issues.
- Following an initial Sewage Management Implementation Evaluation, subsequent evaluations of the same sewage management program and/or other operation and maintenance assurance measures are encouraged at intervals deemed to be effective.
- Field Office program personnel should make every possible effort to follow up with municipalities having official plans or plan revisions where sewage management program or other operation and maintenance assurance measures have previously been approved to ascertain that these programs or measures have been implemented as approved. These activities may be conducted as Sewage Management Implementation Evaluations or via other established methods for follow up.
- Field Office program personnel will respond to queries from Central Office program staff as to the status of sewage management programs or other operation and maintenance assurance measures in specific municipalities.
- Records of Sewage Management Implementation Evaluations and other follow up actions related to implementation of sewage management programs or other operation and maintenance assurance measures are maintained locally in municipal sewage correspondence files in records management. A copy shall be forwarded to the Central Office Act 537 Program Management section.

IV. Data Collection, Review, and Reporting

To stimulate and help direct municipal Sewage management efforts, DEP must increase its efforts to collect, review, analyze and report existing and new data and records coming from these activities.

DEP shall continue with existing data collection and analysis activities as a part of annual reporting by local agencies and municipalities via the *Combined Application for Reimbursement for Enforcing the Pennsylvania Sewage Facilities Act and Onlot Sewage Disposal Program Annual Report* DEP ID: 3800-FM-WSFR0280 and *Combined Application for Reimbursement of Expenses for Sewage Management Program Administration Under the Pennsylvania Sewage Facilities Act, Act 537 And Sewage Management Program Annual Report* DEP ID: 3800-FM-WSFR0284. DEP shall also expand efforts to review and report permitting data and system performance data as submitted by local agencies, system owners and other sources in order to expand data collection and analysis in the areas of sewage management and operation and maintenance assurances.

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Results from the above sources will be analyzed and used in combination with data collected through Sewage Management Implementation Evaluations. The goal is assessment of the effectiveness of sewage management programs and/or other operation and maintenance assurance measures as implemented in municipal and multi-municipal jurisdictions. Such data may also be used to support determinations by Field Office program personnel of: (1) the need for municipalities to revise their official plan to evaluate the feasibility of establishing a sewage management program, (2) to include sewage facilities in existing sewage management programs, or (3) to upgrade their existing sewage management program to more effectively assure operation and/or maintenance of regulated onlot sewage facilities.

Guidelines

- Central Office program staff will continue and expand its current efforts to collect and analyze annual data reported through the *Combined Application for Reimbursement for Enforcing the Pennsylvania Sewage Facilities Act and Onlot Sewage Disposal Program Annual Report* DEP ID: 3800-FM-WSWM0280 and *Combined Application for Reimbursement of Expenses for Sewage Management Program Administration Under the Pennsylvania Sewage Facilities Act, Act 537 And Sewage Management Program Annual Report* DEP ID: 3800-FM-WSFR0284. Annual report data specifications will be reviewed and expanded as necessary to include permitting, investigative, administrative, and other pertinent or indicative details relating to the following as they pertain to onlot sewage facilities:
 - Local agency permitting and enforcement activities.
 - Oversight, educational, enforcement, and other pertinent activities with sewage management programs and/or other operation and maintenance assurance measures.
 - Operation and maintenance reporting data.
- Central Office program staff will communicate pertinent details from the above results to Field Office program personnel not later than June 30 of each year.
- Field Office program personnel will regularly review and record (through data input into appropriate software applications or by other effective means) data and results from existing collected records regarding onlot sewage facilities. This includes, but is not limited to:
 - Administrative (pink) copies from local agency permits
 - Monitoring and other data from DEP permitted and other systems

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- Field Office program personnel will communicate pertinent details from the above results to Central Office program staff.

V. Sewage Management Education and Assistance

Commendably, past policy of the Department called for peer-to-peer training of local officials, development of new training materials for planning and sewage management, rapport building between local officials and Department staff, prioritization of training to municipalities most in need, and education at the onlot facility owner level.

The Department continues with this policy and has already undertaken certain of these supportive training initiatives. This strategy for education and assistance to municipalities should be continued and expanded.

It is expected that effective implementation of education and assistance support in combination with the motivation provided by more effective implementation of regulatory compliance and enforcement for assurance and management of operation and maintenance with onlot systems will increase municipal interest in, requests for, and participation with educational and assistance offerings.

Guidelines

- Central Office program staff will continue to coordinate and cooperate with Field Office program personnel to identify successful sewage management programs appropriate for sewage management program survey and coordinate with these municipalities for the purpose of conducting these surveys. These actions will serve to:
 - Expand the Department's experience base concerning successful sewage management programs.
 - Increase and improve profile and trending data gathered from sewage management programs.
 - Increase rapport between municipalities and DEP regarding sewage management
- During the course of these sewage management program survey efforts Central Office program staff will continue to expand the population and distribution of volunteer peer assistants recruited from personnel working in or with surveyed sewage management programs. These sewage management program peer assistants will be coordinated and called on to provide:
 - Points of contact for referral and assistance to municipalities seeking to develop sewage management program elements.

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- Expert presentation and promotion of sewage management programs.
- Internal support with educational and other efforts relating to sewage management programs.
- Central office program staff will continue to develop new educational materials and revise pertinent existing materials to convey process, elements, and options for successful sewage management program development and implementation and towards presenting operation and maintenance and sewage management related issues in a working perspective.
- Central Office program staff will expand efforts to provide dedicated education to (a) DEP Field Office program personnel, (b) wastewater treatment consultants, (c) sewage enforcement officers, and (d) other appropriate, related sectors regarding operation and maintenance needs and standards for onlot sewage facilities as well as development and implementation of sewage management programs and/or other operation and maintenance assurance measures to address these needs.
- Education to the above audiences will include transfer of capabilities as necessary for these audiences to educate and assist municipal officials in addressing operation and maintenance assurances for onlot facilities through the implementation of effective sewage management programs.
- Central Office program staff and Field Office program personnel will continue and, where possible, expand efforts to provide education relating to sewage management at conferences, workshops, training events, and other such appropriate venues attended by local officials, wastewater treatment consultants, sewage enforcement officers, and/or other appropriate, related sectors.

Existing Authority and Requirements Relating to Assurance of Long Term Operation and Maintenance of Sewage Facilities

Overview

Authority has been established in the Sewage Facilities Act and structured within the regulations promulgated at Title 25, Pa. Code Chapter 71 to require assurance of proper operation and maintenance of sewage facilities via sewage management programs and/or other operation and maintenance assurance measures. However, many factors have worked together to confuse and fragment understandings regarding these requirements and obligations, incumbent upon the regulated community, for assuring long-term operation and maintenance with sewage facilities. Therefore, an orderly, interpretative review of existing statutory authority and regulatory requirements is deemed necessary and is here provided:

Statutory Authority – Act 537 of 1966

Pursuant to Section 3 (1) (relating to declaration of policy), the Commonwealth of Pennsylvania declares as its policy through the Act to protect the public health, safety and welfare of its citizens through the development and implementation of plans for the sanitary disposal of sewage waste.

Pursuant to Section 3 (3) (relating to declaration of policy), the Commonwealth of Pennsylvania declares as its policy through the Act to prevent and eliminate pollution of waters of the Commonwealth by coordinating planning for the sanitary disposal of sewage waste with a comprehensive program of water quality management.

Pursuant to Section 5 (d) (3) (relating to requirement that municipal official plans shall provide for adequate sewage treatment facilities which will prevent the discharge of untreated or inadequately treated sewage or other waste into any waters or otherwise provide for the safe and sanitary treatment of sewage or other waste) the Commonwealth seeks to include in its planning measures that prevent inadequate treatment of sewage prior to its release to the environment, including groundwater.

Pursuant to Section 5 (d) (5) (relating to requirement to consider any existing State plan affecting the development, use and protection of water and other natural resources) the Commonwealth seeks coordination of municipal level official plans with the goals of State plans concerning these matters, including interstate and international agreements to which the Commonwealth is bound.

By action of Section 10 (2) the Department is given both the power and the duty to approve or disapprove official plans and revisions thereto.

Pursuant to Section 10, generally, the Department has additional powers and duties needed to both administer its responsibilities under the Act and to oversee the Act's administration by more local units of government.

Regulatory Requirements – Title 25, Chapter 71

Subchapter B: Official Plan Requirements

As part of the content of a completed official plan:

§ 71.21(a)(2)(i)(C) calls for a description of operation and maintenance requirements for sewage treatment systems and the status of compliance with these requirements and the requirements of Subchapter E (relating to sewage management programs) relative to existing sewage facilities in the planning area.

§ 71.21(a)(4)(ii)(C) calls for identifying available alternatives to provide improved sewage facilities for each area of sewage disposal need through the potential for the continued use of existing facilities by using improved operation and maintenance of those facilities.

§ 71.21(a)(4)(iv) calls for identifying available alternatives to provide improved sewage facilities for each area of sewage disposal need through the need for a sewage management program to assure the future operation and maintenance of existing and proposed sewage facilities.

Subchapter C: New Land Development Plan Revisions

As part of a completed official plan revision for new land development relating to the nature of the proposal:

§ 71.52(a)(1)(vi) calls for a description of required operation and maintenance requirements for onlot sewage treatment systems required by Subchapter E (relating to sewage management programs).

§ 71.52(a)(1)(vii) calls for designation of the person responsible for operation and maintenance activities and the legal and financial arrangements necessary for assumption of this responsibility.

§ 71.52(a)(2)(iii) calls for identification of existing sewage facilities and sewage management programs in the area as part of a description of the relationship of the proposed development to existing sewage needs, proposed sewage facilities and sewage management programs in an area delineated by the municipality.

Subchapter D: Official Plan Requirements for Alternative Evaluations

As part of a completed official plan or plan revision relating to proposal of individual and community onlot systems and in relation to establishing their use as a feasible alternative:

§ 71.62(d) requires that municipalities evaluate and implement options for establishing an institutional framework to assure proper operation and maintenance for individual and community onlot sewage systems.

As part of a completed official plan revision for new land development relating to proposal of small flow treatment facilities:

§ 71.64(a) (relating to operation and maintenance for small flow treatment facilities) states that small flow treatment facilities require adequate operation and maintenance.

§ 71.64(c)(5) (relating to responsibilities for operation and maintenance with small flow treatment facilities) sets management options (at § 71.64(c)(5)(i-vii)) to establish specific responsibilities for the proper operation and maintenance of small flow treatment facilities.

Subchapter E: Sewage Management Programs

§ 71.71 (relating to general requirements) requires municipalities to assure the proper operation and maintenance of sewage facilities within their borders by addressing long-term operation and maintenance in official plans and revisions to official plans. Municipalities are required by planning requirements to identify, evaluate, and implement the operation and maintenance needs of existing and proposed sewage facilities within the municipality. § 71.71 also states that 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 and requires that evaluation and implementation of operation and maintenance needs through a sewage management program be consistent with the provisions of this subchapter.

§ 71.72 (relating to sewage management programs for Department permitted sewage facilities and community onlot sewage systems) requires that an official plan evaluate and implement use of one or more listed sewage management options (at § 71.72(a)(1-9)) to effectively assure the long-term proper operation and maintenance of proposed Department permitted non-municipal sewage facilities, or community onlot sewage systems. This requirement is in effect whenever an official plan addressing existing needs areas or new land development proposes the construction of such facilities.

§ 71.73 (relating to sewage management programs for sewage facilities permitted by local agencies), sets obligations for municipalities to establish sewage management programs and, thereby, assure performance of specific operation and maintenance requirements (at § 71.73(b)(1-8)) for sewage facilities permitted by local agencies whenever the following conditions, stated in 71.73(b) exist:

“When an official plan or official plan revision shows, or the Department determines, that existing sewage facilities permitted by the local agency need periodic inspection, operation or maintenance to provide long-term proper operation, or are not properly functioning because of inadequate operation and maintenance, the municipality shall revise its official plan to establish a sewage management program for these types of facilities.”

Appendix A

§ 71.74(a) (relating to Department responsibilities to require sewage management programs) compels the Department to require that municipalities revise their official plan to evaluate the feasibility of establishing a sewage management program (or the inclusion of sewage facilities in an existing sewage management program) whenever the Department determines that:

- (1) Existing sewage facilities within the municipality are not being properly operated and maintained under this part.
- (2) A revision for new land development is submitted which does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed facilities.
- (3) The official plan or revision shows that existing or new sewage facilities need periodic inspection, operation or maintenance to provide long-term proper operation.

§ 71.75 (relating to private request to require a sewage management program) allows a resident or property owner in a municipality to file a private request with the Department requesting that the Department order the municipality to revise its official sewage plan when one of the following can be shown that:

- (1) Existing sewage facilities within the municipality are not being properly operated and maintained under this part.
- (2) A revision for new land development does not adequately address the administrative, technical or legal functions needed to carry out operation and maintenance of the proposed facilities.

Minimum Operation and Maintenance Needs for Sewage Facilities Treatment Components When Used With Conventional Onlot Treatment Systems

Septic Tank

Maintenance

Pump out of the septic tank every three years or whenever measurement reveals that the tank is filled with solids in excess of 1/3 of the liquid depth of the tank or with scum in excess of 1/3 of the liquid depth of the tank.

Inspection

Measurement of the sludge and scum depth in the septic tank as adequate to determine need for and frequency of pumping, unless pumping every three years is determined to be appropriate as the pumping frequency.

Inspection of the septic tank, inlet and outlet baffles, and solids retainer every three years for structural integrity.

Septic Tank

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Maintenance

Pump out of the septic tank by the maintenance entity established under Chapter 72, Section 72.25(h) every three years or whenever measurement reveals that the tank is filled with solids in excess of 1/3 of the liquid depth of the tank or with scum in excess of 1/3 of the liquid depth of the tank.

Inspection

Measurement of the sludge and scum depth in the septic tank by the maintenance entity established under Chapter 72, Section 72.25(h) every six months.

Inspection of the septic tank, inlet and outlet baffles, and solids retainer by the maintenance entity established under Chapter 72, Section 72.25(h) every six months for structural integrity.

Aerobic Treatment Tank

Maintenance

Pump out of the aerobic tank in accordance with manufacturer's and NSF requirements as based on the measurement of the sludge and scum depth during inspection.

Inspection

Measurement of the sludge and scum depth in the aerobic treatment tank annually.

Inspection of excess solids in the aerobic tank and inlet and outlet baffles annually for structural integrity in accordance with manufacturer's and NSF requirements.

Aerobic Treatment Tank

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Maintenance

Pump out of excess solids in the aerobic tank in accordance with manufacturer's and NSF requirements by the maintenance entity established under Chapter 72, Section 72.25(h) as based on the measurement of the sludge and scum depth during inspection.

Inspection

Measurement of the sludge and scum depth in the aerobic treatment tank by the maintenance entity established under Chapter 72, Section 72.25(h) every six months.

Appendix B

Inspection of the aerobic tank and inlet and outlet baffles, buoyed solids retainer, and electrical connections by the maintenance entity established under Chapter 72, Section 72.25(h) every six months for structural integrity in accordance with manufacturer's and NSF requirements.

Intermittent Free Access Sand Filter

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Inspection

Inspection of the free access media filter periodically by the property owner and every six months by the maintenance entity established under Chapter 72, Section 72.25(h) for compliance with the following standards:

- a. Solids may not be accumulated on the surface of the media in the intermittent free access sand filter nor may 12 inches of effluent be ponded over the media. The high water alarm must be functional.
- b. The surface of the intermittent free access sand filter must be raked and porous, and any media removed must be replaced with sufficient media to maintain the depth at a minimum of 24 inches.
- c. The plumbing in the intermittent free access sand filter tank must be functional and free of leaks, and the splash plates must be in place.
- d. The filter tank and cover must be structurally sound and secured to inhibit unauthorized access. Any insulation must be in place and in good condition.
- e. The area around the outside of the filter tank must be free of ponded effluent and downgradient seepage.

Intermittent Buried Sand Filter

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Inspection

Inspection periodically by the property owner and every six months by the maintenance entity established under § 72.25(h) of the buried intermittent media filter bed for ponded effluent and downgradient seepage.

Chlorination

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Operation and Maintenance

Provision by the manufacturer of an operation and maintenance manual for the chlorinator to the permittee.

Refilling of the chlorinator as needed as determined via inspection.

Inspection

Inspection of the chlorinator periodically by the property owner and every six months by the maintenance entity established under Chapter 72, Section 72.25(h) to determine and accomplish the erosion chlorinator refilling specification provided in Maintenance, to determine the chlorinator as functioning within the specifications of the manufacturer, and bridging of chlorine tablets as not occurring.

Sampling

Sampling of the chlorinator periodically by the property owner and every six months by the maintenance entity established under Chapter 72, Section 72.25(h) after the chlorine contact tank to ensure that a chlorine residual after the chlorine contact tank is maintained at a concentration of at least 0.2 mg/L.

Distribution Box

Maintenance

Leveling of the distribution box or adjustment of weirs as necessary to ensure equal distribution to each lateral.

Inspection

Inspection of the distribution box at least every three years for structural integrity and to determine and accomplish the leveling or adjustments specification provided in Maintenance.

Dosing Tanks and Lift Pump Tanks

Maintenance

Pump out of the dosing tank whenever the septic tank or aerobic treatment tank is pumped out.

Inspection

Inspection of the dosing tank and/or lift pump tank annually for structural integrity.

Dosing Tanks and Lift Pump Tanks

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Maintenance

Pump out of the dosing tank whenever the septic tank or aerobic treatment tank is pumped out.

Inspection

Inspection of the dosing tank and/or lift pump tank every six months by the maintenance entity established under Chapter 72, Section 72.25(h) for structural integrity.

Dosing Pumps, Siphons, and Lift Pumps

Maintenance

Testing of all operation level switches and all alarms associated with the distribution system annually.

Inspection

Inspection annually of all pumps, siphons, and electrical connections installed in the system.

Dosing Pumps, Siphons, and Lift Pumps

When used with: - Individual Residential Spray Irrigation System (IRSIS)

Maintenance

Testing every six months by the maintenance entity established under Chapter 72, Section 72.25(h) of all operation level switches and all alarms associated with the distribution system.

Inspection

Inspection every six months by the maintenance entity established under Chapter 72, Section 72.25(h) of all pumps, siphons, and electrical connections installed in the system.

Seepage Bed

Inspection

Inspection annually of the absorption area to ensure that there is no ponding of effluent over the absorption area or downgradient seepage.

Standard Trenches

Inspection

Inspection annually of the absorption area to ensure that there is no ponding of effluent over the absorption area or downgradient seepage.

Elevated Sand Mound Bed

Inspection

Inspection annually of the elevated sand mound bed to ensure that there is no ponding of effluent over the bed absorption area or downgradient seepage.

Elevated Sand Mound Trenches

Inspection

Inspection annually of the elevated sand mound trenches to ensure that there is no ponding of effluent over the trench absorption area or downgradient seepage.

Subsurface Sand Filter Bed

Inspection

Inspection annually of the subsurface sand filter bed to ensure that there is no ponding of effluent over the filter bed area or downgradient seepage.

Subsurface Sand Filter Trenches

Inspection

Inspection annually of the subsurface sand filter trenches to ensure that there is no ponding of effluent over the filter trench area or downgradient seepage.

Individual Residential Spray Irrigation System (IRIS)

Operation and Maintenance

Provision by the system designer of an operation and maintenance manual, which may be supplemented with manufacturer's manuals and instructions, to the permittee that includes, as a minimum, the following required standards for operation and maintenance to be met by the permittee:

- a. The plumbing to the spray field shall be functional and free of leaks.
- b. The spray nozzles shall be functioning within the design specifications and the extent of the designed wetted perimeter and each nozzle.
- c. A laboratory shall test the discharge to the system for fecal coliforms, carbonaceous biochemical oxygen demand (CBOD), suspended solids and chlorine residual to determine compliance with Chapter 72 (relating to the administration of sewage facilities permitting program).

At least annually, a copy of the test results along with the most recent inspection of the system by the maintenance entity established under § 72.25(h) (relating to issuance of permits) shall be sent to the local agency.

Inspection

Inspection periodically by the property owner and every six months by the maintenance entity established under § 72.25(h) to assure:

- a. The plumbing to the spray field as functional and free of leaks.
- b. The spray nozzles as functioning within the design specifications and the extent of the designed wetted perimeter and each nozzle.

At least annually a copy of the most recent inspection of the system by the maintenance entity established under § 72.25(h) (relating to issuance of permits) shall be sent to the local agency.

Sampling

Sample collection of the discharge to the system from the dosing tank, analysis by a certified laboratory, and reporting of results to the local agency at least annually to determine compliance

Appendix B

with Chapter 72 (relating to the administration of sewage facilities permitting program) for fecal coliforms, carbonaceous biochemical oxygen demand (CBOD), suspended solids and chlorine residual.

Holding Tank

Maintenance

Pump out of the holding tank immediately upon warning indication by the installed warning device that the tank is filled to within 75% of capacity.

Inspection

Inspection of the holding tank at least every three years for structural integrity.

Privy

Maintenance

Pump out of the privy vault at least every three years.

Inspection

Inspection of the privy vault at least every three years for the following:

- a. That the vault is structural sound and water tight.
- b. That the roof-ventilation stack is screened to prevent insects entry.
- c. That the exterior cleanout is assessable.
- d. That the superstructure is insect tight and well ventilated and fastened solidly to the vault.
- e. That the door is self-closing and provided with weather stripping to make it insect proof.
- f. That the seat and cover are in good repair and self-closing.
- g. That surface water cannot flood the vault.

Chemical Toilet or Other Portable Toilet

Operation and Maintenance

Operation and maintenance in accordance with the designer's or manufacturer's specifications.

Inspection

Inspection of the toilet at the time of delivery for conformance with the designer's or manufacturer's specifications.

Recycling Toilet, Incinerating Toilet, or Composting Toilet

Operation and Maintenance

Provision of an operation and maintenance manual by the designer or manufacturer to the permittee.

Operation and maintenance in accordance with the designer or manufacturer's specifications.