



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building

P.O. Box 8774

Harrisburg, PA 17105-8774

August 10, 2007

**Bureau of Water Standards and Facility Regulation**

Mr. Mark Mitman  
The Mitman Group, LLC  
25 West Broad Street  
Bethlehem, PA 18018

Dear Mr. Mitman,

Thank you for bringing your concerns to us at the July 17, 2007, meeting in Rachel Carson State Office Building. This letter is in response to the twelve issues you brought up at that meeting. For your convenience, we will address each issue separately and in the order they appear in your original "issues" document. The issues will be characterized as in your section titled "Policy in Conflict." Each issue below will be immediately followed by our response.

**Issue #1:** "When conducting a preliminary hydrogeologic evaluation, the Department of Environmental Protection (DEP) requires the applicant to over estimate wastewater flows depending upon number of bedrooms."

**Response:** The "*Draft Discussion on Hydrogeologic Studies*" document that you provided as an attachment in support of this issue is clearly labeled "draft," has not been authorized through the Department's Technical Guidance development process and is not considered "official" DEP position. Please be advised that we are currently revising existing guidance to address nitrogen impacts on the groundwater and drafting new guidance to address hydrogeologic study content and procedures. These guidance documents will proceed normally through the Department's technical guidance development process.

**Issue # 2:** "Requirement for large volume sewage facility to size to Chapter 73 standards."

**Response:** This concern referenced Section 73.17(a) and appears to be centered upon the proper sewage flows to be used for large volume onlot sewage facilities. Under current regulation and guidance, sewage flows from PA Code Title 25, Chapter 73 Sections 73.17(a) and (b) are used for the design of large volume and community onlot sewage systems, as well as, individual onlot sewage systems. The *Manual for Land Application for Treated Sewage and Industrial Wastewater* (362-2000-009) (section 8.1) requires Large Volume Onlot Sewage Disposal Systems (LVOLDS) to meet Chapter 73 requirements. Section 73:17(a) specifies the use of *Domestic Wastewater Facilities Manual* (362-0300-001) (DWF) sewage flows for sewerage systems. Per Section 73.1 definitions, onlot systems, regardless of their size, are defined in terms of disposal into a soil absorption area or spray field while sewerage systems are defined in terms of disposal other than renovation in the soil. Each has its own design requirements and while use



of the DWFDM for design of onlot systems is not authorized, design of any pretreatment systems used to reduce specific components of the wastewater prior to discharge to an absorption area should be in accordance with this document. Of note, the *Manual for Land Application for Treated Sewage and Industrial Wastewater* (362-2000-009) is presently under revision and this relationship will be clarified.

**Issue # 3:** “Requirement that only operational & maintenance agreements are acceptable as an alternative to address present and future sewage needs on marginal soils.”

**Response:** Presently there are four options available to a municipality when addressing the short and long term sewage disposal needs of projects in marginal soils. They are (1) inclusion of the project in a sewage management program meeting the minimum requirements of Chapter 71 section 71.73, (2) replacement area testing, (3) scheduled replacement with sewerage facilities and (4) reduction of the density of onlot systems (where density alone is the issue). Selection of the appropriate option or combination of options to be used is a municipal function. When making such selections, however, in addition to Section 71.52(a)(4) a municipality must also consider Section 71.52(a)(5) where assurance of the continued system operation and maintenance is addressed. Finally, the municipality is required to justify the selection in terms of addressing both the present and future sewage needs. If the selection is a Sewage Management Program that requires operation and maintenance agreements, DEP supports the municipality in this selection and will require agreements during planning.

**Issue # 4:** “Requirement that all resolved PNDI conflicts must be published.”

**Response:** A document titled “DEP SERO memo on advertising requirements” was referenced in your issues paper but was not provided. As per Chapter 71 Section 71.53(d)(6)(ix), publishing is required whenever a proposal includes resolution of a conflict between the proposed alternative and the consistency requirements contained in Section 71.21(a)(5)(i)—(iii). Section 71.21 (a)(5)(i) includes PNDI and ten other areas of concern. Section 71.21 (a)(5)(ii) requires resolution of inconsistencies identified in this section. Publishing is required for the resolution of an inconsistency with any of these areas. Singling out PNDI for special treatment by either only requiring PNDI related publishing at the expense of the other consistency items or by not requiring PNDI related publishing due to any lengthy nature of mitigation agreements would be inappropriate.

**Issue # 5:** “Requirement that systems in generally suitable soils must be identified during planning to be acceptable during permitting.”

**Response:** Chapter 71 Section 71.62(b) requires projects that propose onlot sewage disposal evaluate “general site suitability” to establish that onlot sewage disposal is a feasible alternative. In defining “suitable site,” these regulations require that soils and percolation testing be completed in accordance with Chapter 73. In order for a site to be “generally suitable,” Section 73.15 establishes a required percolation rate between 3 and 180 minutes per inch and Section 73.14 establishes the minimum suitable soil depth of 20 inches above a limiting zone (10 inches to rock / 16 to seasonal high water table for spray). Section 73.12 eliminates sites with slopes in excess of 25 %, areas located in floodways, those sites with rock outcrops and those with

sinkholes and closed depressions. Requiring that specific onlot technology be identified under these conditions during a feasibility determination is not clearly supported in regulation. Of note, a technical guidance document that will address site suitability and clarify critical planning and permitting issues for shallow soil and other specialized onlot technologies is presently under development.

**Issue # 6:** “New land development proposing grinder pumps do not qualify for exemptions from sewage facilities planning.”

**Response:** Per Section 71.51(b)(2), new land development proposals intended to be served by facilities requiring a permit are not eligible to be exempt from Sewage Facilities Act planning. Planning for projects proposing the use of grinder pumps is necessary to address the institutional arrangements required to provide proper operation and maintenance of these facilities, thus assuring their long-term functionality. Presently, permit requirements associated with grinder pumps are confusing and inconsistently implemented. The fact that certain grinder pump scenarios and configuration are far more complex than a generic “lift pump into a gravity sewer line” arrangement only worsens the situation. In response, technical guidance that will address and clarify this issue is currently under development by DEP.

**Issue # 7:** “Requirement that operation & maintenance agreements be executed by municipality prior to planning module consideration.”

**Response:** Chapter 71 provides ample authority to require O & M agreements during Act 537 planning as part of municipal sewage management programs or for specific technologies. Small Flow Treatment Facilities (SFTF) and DEP permitted onlot facilities are two specific examples of such technologies. In making the final approval/disapproval decision on a plan revision, Section 71.32(d)(5) requires DEP to consider whether the revision adequately provides for continued O & M of the proposed facilities. It is a municipal responsibility to assure adequate O & M through a sewage management program (SMP), therefore, whether to require draft or fully executed O & M agreements should be a municipal decision included in their SMP. DEP making this decision and specifically requiring fully executed O & M agreements during the planning process is not as well supported in regulation. However, in making the final approval/disapproval decision, Section 71.32(d)(4) also requires DEP to consider whether the revision can be implemented. Unexecuted agreements may not be able to be implemented. As a matter of professional judgment an executed agreement may be necessary for implementation.

**Issue # 8:** “Required planning determination that a residential lot proposing a 5-bedroom home is 1½ EDUs.”

**Response:** Use of the EDU and bedroom configuration by DEP personnel to require completion of a preliminary hydrogeologic evaluation because of density considerations per section 71.62(c)(2)(ii) is not supported in regulation. Section 71.1 defines an EDU in terms of a multiple family dwelling or commercial or industrial establishment with flows equal to 400 gpd. The “*Increasing The Number Of Proposed Bedrooms In An Approved Subdivision*” document that you provided as an attachment in support of this issue has not been authorized through the

Department's Technical Guidance development process and is not considered "official" DEP position.

**Issue # 9:** "Requirement that a Department sewage-planning specialist be on site to observe soils testing."

**Response:** Requiring that DEP personnel be present during all soil testing events is not realistic and logistically untenable. The 10-day prior notification to DEP of scheduled soils testing is included in mailer application and planning module forms for the purpose of providing DEP Field Staff an opportunity to attend the event and observe the Local Agency SEO. For Local Agency permitted onlot sewage systems, the SEO, representing the permitting authority, is required to conduct, observe or confirm soil testing prior to issuing a permit. However, no such SEO requirement exists for DEP permitted LVOLDS systems and a DEP presence (as the permitting authority) would be justified.

**Issue # 10:** "Requirement of detailed system designs for large volume drip/spray fields at the planning stage including a Site and Soil Preparation and Vegetation Establishment Plan."

**Response:** This concern centers upon the request for a fully developed crop management plan during the Act 537 planning phase of project development. Section 71.62(a) requires that general site suitability shall be evaluated to establish feasibility for use of individual or community onlot sewage systems. While design level plans and specifications for LVOLDS are not required to establish feasibility, sufficient detail to determine general sizing of the infiltration structures is required in order to ensure that sufficient suitable area exists for the proposed facilities. Creation and approval of a "crop management plan" is listed as a requirement for Part II permitting in Section 3.1 of the "*Manual for Land Application for Treated Sewage and Industrial Wastewater*" (362-2000-009) and is not considered a feasibility determining item. The attached "DEP SERO Policy" is clearly labeled "draft," has not been authorized through the Department's Technical Guidance development process and is not considered "official" DEP position.

**Issue # 11:** "Requirement to use wastewater monitoring wells as trigger for preliminary hydrogeologic evaluation."

**Response:** Section 71.62(c) refers to "waters of the Commonwealth" and Section 71.62(c)(2) specifies "water supplies" but does not specifically state "drinking water supplies." Protecting all waters of the Commonwealth is one of the primary purposes of the section. Nitrate-Nitrogen tends to accumulate in the upper reaches of the near surface aquifer. Nitrate-Nitrogen produced by onlot sewage systems will disperse in the near surface aquifer first, but can migrate to deeper aquifers, as well. The purpose of Section 71.62(c)(2) is to assess the impact new sources of Nitrate-Nitrogen will have on the receiving environment. Using shallow wells, such as "wastewater monitoring wells" provides the most accurate information about the receiving environment. Use of these wells for monitoring near surface groundwater will not be restricted. Section 3 of Act 537 declares that it is a policy of the Commonwealth, through Act 537, to prevent and eliminate pollution of waters of the Commonwealth.

**Issue # 12:** “Requiring operation and maintenance only for new land development and not for existing facilities “

**Response:** Ample authority exists in Sections 71.71 through 71.74 for DEP to require operation and maintenance of all onlot sewage facilities. Exercising this authority and instituting widespread O & M requirements, however, would be counter productive, as many municipalities are presently ill equipped to assume the full responsibilities of implementation. Furthermore, a critical mass has not yet developed in the service provider industry to support such an action. Initially, implementing sewage management programs for a sector of the regulated community, without overloading local resources, is believed to be an achievable goal for most municipalities. DEP will not discourage municipalities choosing full implementation of sewage management programs.

I trust that you find this information helpful. If you have any questions or comments regarding this response, please contact the Permits and Planning Division Program Manager, Mr. Ronald C. Furlan, P.E. or the Planning section acting Chief, Kevin McLeary, P.E. at the above number.

Sincerely

A handwritten signature in black ink, appearing to read 'Dana K. Aunkst', written in a cursive style.

Dana K. Aunkst, P.E.  
Director

bcc: Joseph A. Feola, SERO  
Jenifer Fields, SERO  
Ronald C. Furlan  
Kevin McLeary  
James Novinger