



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

INSTRUCTIONS FOR COMPLETING ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

Remove and recycle these instructions prior to submission.

CHECKLIST INSTRUCTIONS

These instructions are designed to assist the applicant in completing the *Act 537 Plan Content and Environmental Assessment Checklist*.

This checklist is composed of three parts: one for "General Information," one for "Administrative Completeness," and one for "General Plan Content". A plan must be **administratively complete** in order to be formally reviewed by the Department of Environmental Protection (DEP). The "General Plan Content" portion of the checklist identifies each of the issues that must be addressed in your Act 537 Plan Update based on the pre-planning meeting between you and/or your consultant and DEP.

Use the right-hand column blanks in the checklist to identify the page in the plan on which each planning issue is found or to reference a previously approved update or special study (title and page number).

If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the plan (or as a footnote) and indicate the page number where this documentation is found.

When information required as part of an official plan update revision has been developed separately or in a previous update revision, incorporate the information by reference to the planning document and page.

For specific details covering the Act 537 planning requirements, refer to 25 *Pa. Code* Chapters 71 and 73 of DEP's regulations.

Wastewater projects proposing funding through the following sources must prepare an "Environmental Report" as described in the Uniform Environmental Review (UER) process and include it with the plan submission designated as "Plan-Appendix A". The following funding programs use the UER process.

- The Clean Water State Revolving Loan Fund (PENNVEST, DEP, EPA)
- The RUS Water and Waste Disposal Grant and Loan Program (USDA-RD)
- The Community Development Block Grant Program (DCED, HUG)
- Other Federal Funding Efforts (EPA)

The checklist items or portions of checklist items required in the Act 537 Plan Update revision and that are also included in the UER process are indicated by **shading**. Most of the "Environmental Report" document may be constructed from the Act 537 Official Plan Update revision by using "copy & paste" techniques. The technical guidance document *Guidelines for the Uniform Environmental Review Process in Pennsylvania* (381-5511-111) is available electronically in DEP's eLibrary online at www.dep.pa.gov.

After Municipal Adoption by Resolution, submit 3 copies of the plan, any attachments or addenda and this checklist to DEP.

A copy of this completed checklist must be included with your Act 537 plan. DEP will use the "DEP USE ONLY" column during the completeness evaluation of the plan. This column may also be used by DEP during the pre-planning meeting with the municipality to identify planning elements that are not required to be included in the plan.



ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

PART 1 GENERAL INFORMATION

A. Project Information

1. Project Name Kiline's Island Sewer System Regional Act 537 Plan
2. Brief Project Description Regional Act 537 Plan N/R = Not Required

B. Client (Municipality) Information

Municipality Name	County	City	Boro	Twp
Lehigh County Authority	Lehigh	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Gross	Liesel			CEO
Additional Individual Last Name	First Name	MI	Suffix	Title
DePoe	Phil			
Municipality Mailing Address Line 1	Mailing Address Line 2			
1053 Spruce Road				
Address Last Line -- City	State	ZIP+4		
Allentown	PA	18106		
Phone + Ext.	FAX (optional)	Email (optional)		
610-398-2503				

C. Site Information

Site (or Project) Name	(Municipal Name) Act 537 Plan
Lehigh County - Kline's Island Sewer System Regional Act 537 Plan	
Site Location Line 1	Site Location Line 2

D. Project Consultant Information

Last Name	First Name	MI	Suffix
Schober	Michael		
Title	Consulting Firm Name		
Senior Vice President	ARRO Consulting, Inc.		
Mailing Address Line 1	Mailing Address Line 2		
108 West Airport Road			
Address Last Line -- City	State	ZIP+4	Country
Lititz	PA	17543	USA
Email	Phone + Ext.	FAX	
michael.schober@arroconsulting.com	717-205 4550		

PART 2 ADMINISTRATIVE COMPLETENESS CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by DEP. Incomplete plans may be denied unless the municipality is clearly requesting an advisory review.
_____	<u>i-x</u>	1. Table of Contents
_____	<u>4</u>	2. Plan Summary
_____	<u>5</u>	A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - 25 Pa. Code §71.21(a)(7)(i)).
_____	<u>7</u>	B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference - 25 Pa. Code §71.21(a)(7)(ii)).
_____	<u>9</u>	C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference - 25 Pa. Code §71.21(a)(7)(iii)).
_____	<u>10</u>	D. Identify the municipal commitments necessary to implement the Plan. (Reference - 25 Pa. Code §71.21(a)(7)(iv)).
_____	<u>Appendix 20</u>	E. Provide a schedule of implementation for the project that identifies the major milestones with dates necessary to accomplish the project to the point of operational status. (Reference - 25 Pa. Code §71.21(a)(7)(v)).
_____	<u>Appendix 21</u>	3. Municipal Adoption: <i>Original</i> , signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference - 25 Pa. Code §71.31(f)) Section V.F. of the Planning Guide.
_____	<u>Appendix 22</u>	4. Planning Commission / County Health Department Comments: Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with area wide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference - 25 Pa. Code §71.31(b)) Section V.E.1 of the Planning Guide.
_____	<u>Appendix 23</u>	5. Publication: Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduct of a 30-day comment period. (Reference - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.
_____	<u>10</u>	6. Comments and Responses: Copies of <i>all</i> written comments received and municipal response to <i>each</i> comment in relation to the proposed plan. (Reference - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.
_____	<u>11</u>	7. Implementation Schedule: A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference - 25 Pa. Code §71.31(d)) Section V.F. of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference - 25 Pa. Code §71.21(c)).
_____	<u>11</u>	8. Consistency Documentation: Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 25 Pa. Code §71.21.(a)(5)(i-iii). (Reference - 25 Pa. Code §71.31(e)). Appendix B of the Planning Guide.

PART 3 GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	Item Required
_____	<u>I-1</u>	I. Previous Wastewater Planning
_____	<u>I-1</u>	A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort:
_____	<u>I-4</u>	1. Previously undertaken under the Pennsylvania Sewage Facilities Act (Act). (Reference - Act 537, 35 P.S. §750.5(d)(1)).
_____	<u>I-4</u>	2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A-D)). Section V.F of the Planning Guide.
_____	<u>I-4</u>	3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A&B)). Section V.D. of the Planning Guide.
_____	<u>I-5</u>	4. Through planning modules for new land development, planning “exemptions” and addenda. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A)).
_____	<u>II-1</u>	II. Physical and Demographic Analysis utilizing written description and mapping (All items listed below require maps, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).
_____	<u>II-1</u>	A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference – 25 Pa. Code §71.21(a)(1)(i)).
_____	<u>II-1</u>	B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference - 25 Pa. Code §71.21(a)(1)(ii)).
_____	<u>Not Required (N/R)</u>	C. Soils - Analysis with description by soil type and soils mapping for areas not presently served by sanitary sewer service. Show areas suitable for in-ground onlot systems, elevated sand mounds, individual residential spray irrigation systems (IRSIS), and areas unsuitable for soil dependent systems. (Reference - 25 Pa. Code §71.21(a)(1)(iii)). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference - 25 Pa. Code §71.21(a)(1)(iii)).
_____	<u>N/R</u>	D. Geologic Features - (1) Identification through analysis, (2) mapping and (3) their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of 5 mg/L. (Reference - 25 Pa. Code §71.21(a)(1)(iii)).
_____	<u>N/R</u>	E. Topography - Depict areas with slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for onlot systems. (Reference - 25 Pa. Code §71.21(a)(1)(ii)).
_____	<u>II-4</u>	F. Potable Water Supplies - Identification through mapping, description and analysis. Include public water supply service areas and available public water supply capacity and aquifer yield for groundwater supplies. (Reference - 25 Pa. Code §71.21(a)(1)(vi)). Section V.C. of the Planning Guide.
_____	<u>II-8</u>	G. Wetlands-Identify wetlands as defined in 25 Pa. Code Chapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference - 25 Pa. Code §71.21(a)(1)(v)). Appendix B, Section II.I of the Planning Guide.

_____	<u>III-1</u>	III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs
		A. Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including:
_____	<u>III-2</u>	1. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference - 25 Pa. Code §71.21(a)(2)(i)(A)).
_____	<u>III-2</u>	2. A narrative and schematic diagram of the facility's basic treatment processes including the facility's National Pollutant Discharge Elimination System (NPDES) permitted capacity, and the Clean Streams Law permit number. (Reference - 25 Pa. Code §71.21(a)(2)(i)(A)).
_____	<u>III-5</u>	3. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under 25 Pa. Code Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of DEP. (Reference - 25 Pa. Code §71.21(a)(2)(i)(B)).
_____	<u>III-13</u>	4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss any remaining reserve capacity and the policy concerning the allocation of reserve capacity. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(i & ii)).
_____	<u>III-14</u>	5. A detailed description of the municipality's operation and maintenance (O & M) requirements for small flow treatment facility systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs (SMPs). (Reference - 25 Pa. Code §71.21(a)(2)(i)(C)).
_____	<u>N/R</u>	6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference - 25 Pa. Code §71.21(a)(4)(i & ii)).
_____	<u>N/R</u>	B. Using DEP's publication titled <i>Act 537 Sewage Disposal Needs Identification</i> (3800-BK-DEP1949), identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:
_____	<u>N/R</u>	1. The types of onlot systems in use. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(A)).
_____	<u>N/R</u>	2. A sanitary survey complete with description, map and tabulation of documented and potential public health, pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Act, the Clean Stream Law or regulations promulgated thereunder. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(B)).
_____	<u>N/R</u>	3. A comparison of the types of onlot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and 25 Pa. Code Chapter 73 (relating to standards for sewage disposal facilities). (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).
_____	<u>N/R</u>	4. An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's <i>Act 537 Sewage Disposal Needs Identification</i> publication. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(B)).

_____	<u>N/R</u>	5. Detailed description of O & M requirements of the municipality for individual and small volume community onlot systems, including the status of past and present compliance with these requirements and any other requirements relating to SMPs. (Reference - 25 Pa. Code §71.21(a)(2)(i)(C)).
_____	<u>III-14</u>	C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:
_____	<u>III-14</u>	1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference - 25 Pa. Code §71.71).
_____	<u>III-18</u>	2. Quantities of the types of sludges or septage generated. (Reference - 25 Pa. Code §71.71).
_____	<u>III-20</u>	3. Present disposal methods, locations, capacities and transportation methods. (Reference - 25 Pa. Code §71.71).
_____	<u>IV-1</u>	IV. Future Growth and Land Development
_____		A. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:
_____	<u>IV-1</u>	1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).
_____	<u>IV-3</u>	2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).
_____	<u>IV-3</u>	3. All limitations and plans related to floodplain and stormwater management and special protection (25 Pa. Code Chapter 93) areas. (Reference - 25 Pa. Code §71.21(a)(3)(iv)) Appendix B, Section II.F of the Planning Guide.
_____	<u>IV-3</u>	B. Delineate and describe the following through map, text and analysis.
_____	<u>IV-3</u>	1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of equivalent dwelling units (EDUs) in development, total number of EDUs currently developed and total number of EDUs remaining to be developed (include time schedule for EDUs remaining to be developed). (Reference - 25 Pa. Code §71.21(a)(3)(i)).
_____	<u>IV-3</u>	2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference - 25 Pa. Code §71.21(a)(3)(ii)). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).
_____	<u>IV-3</u>	3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference - 25 Pa. Code §71.21(a)(1)(iv) and (a)(3)(iii)).
_____	<u>IV-7</u>	4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of any other agency relating to the development, use and protection of land and water resources with special attention to: (Reference - 25 Pa. Code §71.21(a)(3)(iv)). --public ground/surface water supplies --recreational water use areas --groundwater recharge areas --industrial water use --wetlands

_____	<u>IV-7</u>	5. Sewage planning necessary to provide adequate wastewater treatment for 5 and 10-year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference - 25 Pa. Code §71.21(a)(3)(v)).
_____	<u>V-1</u>	V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities
_____	<u>V-1</u>	A. Conventional collection, conveyance, treatment and discharge alternatives including:
_____	<u>N/R</u>	1. The potential for regional wastewater treatment. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-4</u>	2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference - 25 Pa. Code §71.21(a)(4)(i)).
_____	<u>V-4 to 8</u>	3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference - 25 Pa. Code §71.21(a)(4)(ii)).
_____	<u>V-4 to 8</u>	a. Repair. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(A)).
_____	<u>V-4 to 8</u>	b. Upgrading. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(B)).
_____	<u>V-4 to 8</u>	c. Reduction of hydraulic or organic loading to existing facilities. (Reference - 25 Pa. Code §71.71).
_____	<u>V-4 to 8</u>	d. Improved O & M. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(C)).
_____	<u>V-4 to 8</u>	e. Other applicable actions that will resolve or abate the identified problems. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(D)).
_____	<u>V-8</u>	4. Repair or replacement of existing collection and conveyance system components. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(A)).
_____	<u>V-36</u>	5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(iii)).
_____	<u>V-36</u>	6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(B)).
_____	<u>N/R</u>	B. The use of individual sewage disposal systems including IRSIS systems based on:
_____	<u>N/R</u>	1. Soil and slope suitability. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).
_____	<u>N/R</u>	2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).
_____	<u>N/R</u>	3. The establishment of a SMP. (Reference - 25 Pa. Code §71.21(a)(4)(iv)). See also Part "F" below.
_____	<u>N/R</u>	4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>N/R</u>	a. Existing technology and sizing requirements of 25 Pa. Code Chapter 73. (Reference - 25 Pa. Code §73.31-§73.72).
_____	<u>N/R</u>	b. Use of expanded absorption areas or alternating absorption areas. (Reference - 25 Pa. Code §73.16).
_____	<u>N/R</u>	c. Use of water conservation devices. (Reference - 25 Pa. Code §71.73(b)(2)(iii)).

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|-------|------------|---|
| _____ | <u>N/R</u> | C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes with consideration of: (Reference - 25 Pa. Code §71.64(d)). |
| _____ | <u>N/R</u> | 1. Treatment and discharge requirements. (Reference - 25 Pa. Code §71.64(d)). |
| _____ | <u>N/R</u> | 2. Soil suitability. (Reference - 25 Pa. Code §71.64(c)(1)). |
| _____ | <u>N/R</u> | 3. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.64(c)(2)). |
| _____ | <u>N/R</u> | 4. Municipal, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code §71.64(d)). See Part "F" below. |
| _____ | <u>N/R</u> | D. The use of community land disposal alternatives including: |
| _____ | <u>N/R</u> | 1. Soil and site suitability. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)). |
| _____ | <u>N/R</u> | 2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)). |
| _____ | <u>N/R</u> | 3. Municipality, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)). See Part "F" below. |
| _____ | <u>N/R</u> | 4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part "V", B, 4, a, b, c above). See also Part "F" below. |
| _____ | <u>N/R</u> | E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference - 25 Pa. Code §71.21(a)(4)). |
| _____ | <u>N/R</u> | 1. Commercial, residential and industrial use. (Reference - 25 Pa. Code §71.63(e)). |
| _____ | <u>N/R</u> | 2. Designated conveyance facilities (pumper trucks). (Reference - 25 Pa. Code §71.63(b)(2)). |
| _____ | <u>N/R</u> | 3. Designated treatment facilities or disposal site. (Reference - 25 Pa. Code §71.63(b)(2)). |
| _____ | <u>N/R</u> | 4. Implementation of a retaining tank ordinance by the municipality. (Reference - 25 Pa. Code §71.63(c)(3)). See Part "F" below. |
| _____ | <u>N/R</u> | 5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference - 25 Pa. Code §71.63(c)(2)). |
| _____ | <u>N/R</u> | F. SMPs to assure the future O & M of existing and proposed sewage facilities through: |
| _____ | <u>N/R</u> | 1. Municipal ownership or control over the O & M of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(iv)). |
| _____ | <u>N/R</u> | 2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference - 25 Pa. Code §71.73(b)(1)). |
| _____ | <u>N/R</u> | 3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality. (Reference - 25 Pa. Code §71.73(b)(2)). |
| _____ | <u>N/R</u> | 4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference - 25 Pa. Code §71.21(a)(4)(iv) and §71.73(b)(5)) through: |
| _____ | <u>N/R</u> | a. Aggressive pro-active enforcement of ordinances that require O & M and prohibit malfunctioning systems. (Reference - 25 Pa. Code §71.73(b)(5)). |
| _____ | <u>N/R</u> | b. Public education programs to encourage proper O & M and repair of sewage disposal systems. |
| _____ | <u>N/R</u> | 5. Establishment of joint municipal SMPs. (Reference - 25 Pa. Code |

		§71.73(b)(8)).
_____	<u>N/R</u>	6. Requirements for bonding, escrow accounts, management agencies or associations to assure O & M for non-municipal facilities. (Reference - 25 Pa. Code §71.71).
_____	<u>V-36</u>	G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference - 25 Pa. Code §71.21(a)(4)).
		1. Modification of existing comprehensive plans involving:
_____	<u>V-36</u>	a. Land use designations. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	b. Densities. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	c. Municipal ordinances and regulations. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	d. Improved enforcement. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	e. Protection of drinking water sources. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-36</u>	4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	1. Water quality/public health. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	2. Growth potential (residential, commercial, industrial). (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	3. Community economic conditions. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	4. Recreational opportunities. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	5. Drinking water sources. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>V-37</u>	6. Other environmental concerns. (Reference - 25 Pa. Code §71.21(a)(4)).
_____	<u>VI-1</u>	VI. Evaluation of Alternatives
		A. Technically feasible alternatives identified in Section V of this checklist must be evaluated for consistency with respect to the following: (Reference - 25 Pa. Code §71.21(a)(5)(i)).
_____	<u>VI-1</u>	1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act (33 U.S.C.A. 1288). (Reference - 25 Pa. Code §71.21(a)(5)(i)(A)). Appendix B, Section II.A of the Planning Guide.
_____	<u>VI-2</u>	2. Municipal wasteload management Corrective Action Plans or Annual Reports developed under 25 Pa. Code Chapter 94. (Reference - 25 Pa. Code §71.21(a)(5)(i)(B)). The municipality's recent Wasteload Management (25 Pa. Code Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. Appendix B, Section II.B of the Planning Guide.
_____	<u>VI-2</u>	3. Plans developed under Title II of the Clean Water Act (33 U.S.C.A.

1281-1299) or **Titles II and VI of the Water Quality Act of 1987** (33 U.S.C.A 1251-1376). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(C)). Appendix B, Section II.E of the Planning Guide.

_____	<u>VI-2</u>	4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(D)). The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.
_____	<u>VI-5</u>	5. Antidegradation requirements as contained in 25 <i>Pa. Code</i> Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(E). Appendix B, Section II.F of the Planning Guide.
_____	<u>VI-5</u>	6. State Water Plans developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(F)). Appendix B, Section II.C of the Planning Guide.
_____	<u>VI-5</u>	7. Pennsylvania Prime Agricultural Land Policy contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(G)). Appendix B, Section II.G of the Planning Guide.
_____	<u>VI-6</u>	8. County Stormwater Management Plans approved by DEP under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(H)). Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the county Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.
_____	<u>VI-6</u>	9. Wetland Protection. Using wetland mapping developed under Checklist Section II.G, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(I)) Appendix B, Section II.I of the Planning Guide.
_____	<u>VI-6</u>	10. Protection of rare, endangered or threatened plant and animal species as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(J)). Provide DEP with a copy of the completed <i>PNDI Manual Project Submission Form</i> . Also provide a copy of the response letters from the 4 jurisdictional agencies regarding the findings of the PNDI search. Appendix B, Section II.J of the Planning Guide.
_____	<u>VI-6</u>	11. Historical and archaeological resource protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission (PHMC). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(K)). Provide DEP with a completed copy of a <i>Cultural Resource Notice</i> and a return receipt for its submission to PHMC. Provide a copy of the response letter or review stamp from the Bureau of Historic Preservation (BHP) indicating the project will have no effect on, or that there may be potential impacts on, known archaeological and historical sites and any avoidance and mitigation measures required. Appendix B, Section II.K of the Planning Guide.

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| _____ | <u>VI-7</u> | B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed and concurred with the resolution of identified inconsistencies. (Reference - 25 Pa. Code §71.21(a)(5)(ii)). Appendix B of the Planning Guide. |
| _____ | <u>VI-7</u> | C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference - 25 Pa. Code §71.21(a)(5)(iii)). |
| _____ | <u>VI-7</u> | D. Provide cost estimates using present worth analysis for construction, financing, ongoing administration, O & M and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of plan submission. (Reference - 25 Pa. Code §71.21(a)(5)(iv)). |
| _____ | <u>VI-10</u> | E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of the plan submission. (Reference - 25 Pa. Code §71.21(a)(5)(v)). |
| _____ | <u>VI-13</u> | F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference - 25 Pa. Code §71.21(a)(5)(vi)). |
| _____ | <u>VI-13</u> | 1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of SMPs. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(A)). |
| _____ | <u>VI-13</u> | 2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a SMP justifying time schedules for each phase. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(B)). |
| _____ | <u>VI-13</u> | G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(D)). |
| _____ | <u>VII-1</u> | VII. Institutional Evaluation |
| _____ | <u>VII-1</u> | A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including: |
| _____ | <u>VII-2</u> | 1. Financial and debt status. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-2</u> | 2. Available staff and administrative resources. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-2</u> | 3. Existing legal authority to: |
| _____ | <u>VII-5</u> | a. Implement wastewater planning recommendations. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-5</u> | b. Implement system-wide O & M activities. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-5</u> | c. Set user fees and take purchasing actions. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-5</u> | d. Take enforcement actions against ordinance violators. (Reference - 25 Pa. Code §71.61(d)(2)). |
| _____ | <u>VII-5</u> | e. Negotiate agreements with other parties. (Reference - 25 Pa. Code §71.61(d)(2)). |

_____	<u>VII-6</u>	f. Raise capital for construction and O & M of facilities. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-6</u>	B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:
_____	<u>VII-6</u>	1. Need for new municipal departments or municipal authorities. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-6</u>	2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-6</u>	3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-7</u>	C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:
_____	<u>VII-7</u>	1. Incorporation of authorities or agencies. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-7</u>	2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-11</u>	3. Description of activities to provide rights-of-way, easements and land transfers. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-11</u>	4. Adoption of other municipal sewage facilities plans. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-11</u>	5. Any other legal documents. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VII-11</u>	6. Dates or timeframes for items 1-5 above on the project's implementation schedule.
_____	<u>VII-11</u>	D. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference - 25 Pa. Code §71.61(d)(2)).
_____	<u>VIII-1</u>	VIII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives
_____		A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on:
_____	<u>VIII-1</u>	1. Existing wastewater disposal needs. (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-1</u>	2. Future wastewater disposal needs. (5 and 10 year growth areas). (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-1</u>	3. O & M considerations. (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-1</u>	4. Cost-effectiveness. (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-1</u>	5. Available management and administrative systems. (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-2</u>	6. Available financing methods. (Reference - 25 Pa. Code §71.21(a)(6)).
_____	<u>VIII-2</u>	7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference - 25 Pa. Code §71.21(a)(6)).

_____	<u>VIII-2</u>	B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan. (Reference - 25 <i>Pa. Code</i> §71.21(a)(6))
_____	<u>VIII-2</u>	C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a SMP. (Reference – 25 <i>Pa. Code</i> §71.31(d))
_____	<u>N/R</u>	IX. Environmental Report (ER) generated from the UER Process
_____	<u>N/R</u>	
		A. Complete an ER as required by the UER process and as described in the DEP Technical Guidance (381-5511-111). Include this document as “Appendix A” to the Act 537 Plan Update Revision. <i>Note: An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.</i>

ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet 6 additional requirements to be eligible for such funds. See *A Guide for Preparing Act 537 Update Revisions* (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

DEP Use Only	Indicate Page #(s) in Plan	Item Required
_____	_____	1. Environmental Impact Assessment. (Planning Phase) The UER replaces the Environmental Impact Assessment that was a previous requirement for PENNVEST projects.
_____	_____	2. Cost Effectiveness (Planning Phase) The cost-effectiveness analysis should be a present-worth (or equivalent uniform annual) cost evaluation of the principle alternatives using the interest rate that is published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon the above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method.
_____		3. Second Opinion Project Review. (Design Phase)
_____		4. Minority Business Enterprise/Women's Business Enterprise (Construction Phase)
_____		5. Civil Rights. (Construction Phase)
_____		6. Initiation of Operation/Performance Certification. (Post-construction Phase)

I/A TECHNOLOGIES

PARTIAL LISTING OF INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

TREATMENT TECHNOLOGIES

Aquaculture
Aquifer Recharge
Biological Aerated Filters
Constructed Wetlands
Direct Reuse (NON-POTABLE)
Horticulture
Overland Flow
Rapid Infiltration
Silviculture
Microscreens
Controlled Release Lagoons
Swirl Concentrator

SLUDGE TREATMENT TECHNOLOGIES

Aerated Static Pile Composting
Enclosed Mechanical Composting (In vessel)
Revegetation of Disturbed Land
Aerated Windrow Composting

ENERGY RECOVERY TECHNOLOGIES

Anaerobic Digestion with more than 90 percent
Methane Recovery
Cogeneration of Electricity
Self-Sustaining Incineration

INDIVIDUAL & SYSTEM-WIDE COLLECTION TECHNOLOGIES

Cluster Systems
Septage Treatment
Small Diameter Gravity Sewers
Step Pressure Sewers
Vacuum Sewers
Variable Grade Sewers
Septic Tank Effluent Pump with
Pressure Sewers