

**PETERS TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN UPDATE
FOR THE
DONALDSON'S CROSSROADS SERVICE AREA**

**MAY 2010 (DRAFT)
MAY 14, 2010 (FINAL DRAFT)**

EXECUTIVE SUMMARY:

ADMINISTRATIVE REQUIREMENTS AND PLAN SUMMARY

EX.1 TABLE OF CONTENTS

This Act 537 Sewage Facilities Plan Update report (Act 537 Plan) has been prepared in accordance with Pennsylvania Department of Environmental Protection (PaDEP) requirements as documented in the publication titled Sewage Facilities Act: A Guide for Preparing Act 537 Update Revisions dated February 4, 1998 (with minor changes effective January 7, 2003).

This Act 537 Plan is formatted in accordance with the document titled "Instructions for Completing Act 537 Plan Content and Environmental Assessment Checklist" (effective September 2005).

The required Table of Contents precedes this Plan Summary and serves an outline to this report.

EX.2 PLAN SUMMARY

EX.2A Service Area and Problem Identification

Peters Township and the Peters Township Sanitary Authority (PTSA) have initiated this Sewage Facilities Plan Update to identify and develop a plan to address the existing and future sewage disposal needs of the Donaldson's Crossroads (DC) Service Area, located within Peters Township. A map depicting Peters Township and the PTSA's service areas is provided in Figure 1 (Page 1-3).

The DC Water Pollution Control Plant (WPCP) is located at the junction of Little Chartiers Creek and Chartiers Creek, at the municipal divide between the Townships of Peters, North Strabane and Cecil.

The DC WPCP is at the end of its useful life, as well as at its organic design capacity. Previous engineering studies have recommended that considering the age, layout, and numerous deficiencies of the existing facility, expansion of the existing facility should not be considered.

Instead, an expanded replacement plant constructed on an adjacent parcel is recommended to be implemented to achieve the objectives set forth for municipal sewage facilities plans. The interceptors serving the service area also require capacity augmentation to provide capacity during peak wet weather events.

An additional focus of this Act 537 Plan Update is the sub-service area known as the Lehner Lakes area, which is presently without public sewerage. The Donaldson's Crossroads service area, its associated sub-service areas, as well as the entire planning area to be considered in this Sewage Facilities Plan Update, is displayed on Figure 2 (Page 2-2).

The prevailing official Act 537 Sewage Facilities Plan for the Donaldson's Crossroads service area is the Washington County Act 537 Sewage Plan of 1971, as amended by several sewage planning modules over the past 39 years.

EX.2B Selected Technical and Institutional Alternatives

Following an analysis of full build-out growth and development, the selected planning period is 20 years (Design Year 2030) and alternatives are to include capacity for a future Lehner Lakes service area.

Treatment

Using the Design Year of 2030, the proposed size of the WPCP would be 1.75 mgd (maximum month, Chapter 94 compliance based), peak flow rate of 12.0 mgd serving 3,125 Equivalent Dwelling Units (EDUs) providing approximately 570 growth EDUs.

The selected treatment process generally is Preliminary treatment, followed by Conventional Activated Sludge (Single Stage Carbon Oxidation-Nitrification) Secondary treatment, with aerobic digestion to stabilize biosolids, odor control and Ultraviolet disinfection prior to discharge to Chartiers Creek.

Provisions are to be included in the initial design program to allow for a modular type increase (e.g. lower cost, relatively quickly constructed addition) should growth rates exceed what is projected herein and the need to expand to the 2.0 mgd threshold is realized prior to Year 2050 (as projected in Section 4 (Future Growth and Land Development)). Examples include dedicating additional area for a future fourth clarifier, adaptation of the proposed initial digesters for use as future additional aeration capacity, conversion of the existing WPCP tankage to digesters and reserving area on the existing WPCP site for additional digestion capacity and miscellaneous piping provisions constructed initially that can allow for relatively easy future connections.

A general arrangement drawing of the selected treatment alternative is provided as Figure 27 (Page 6-13).

The proposed Preliminary treatment process consists of screening, grit removal, and influent flow metering to quantify the wastewater before internal recycle flows are added to the wastewater stream. The Preliminary treatment process is proposed for the adjacent parcel at the influent or headworks of the proposed WPCP.

The proposed Secondary Treatment Process, Conventional Activated Sludge, with Single Stage Carbon Oxidation-Nitrification provides biological treatment to the continuous influent wastewater to remove dissolved and suspended organic and inorganic pollutants by incorporation into the new biological growth which is subsequently removed from the wastewater stream of stabilization in the aerobic digestion process. This process is similar to the existing BR and DC WPCP's.

Ultraviolet final effluent disinfection is proposed to kill harmful bacteria and organisms present in the treated wastewater prior to discharge.

As the activated sludge process uses biological treatment to remove pollutants by incorporation of the pollutants in new biological growth, the process is controlled by removing or "wasting" a specific volume of the biology each day, approximately equivalent to the amount of new biology grown each day. These waste biosolids require treatment prior to disposal in order to further reduce pathogens, eliminate offensive odors, and produce a stable product for further processing.

The proposed biosolids stabilization method is aerobic digestion (similar to current process at BR and DC WPCP's). This process tankage is proposed on the parcel adjacent to the existing WPCP (initially) and may (contingent on future growth rate) ultimately be included at the existing WPCP tankage.

After the biosolids are stabilized, they must be removed from the treatment plant and properly disposed. As such a belt filter press is selected for biosolids dewatering thereby removing the volume required to be disposed. A belt filter press at the Donaldson's Crossroads WPCP would also serve as a backup unit to the Brush Run WPCP's belt filter press, where only one unit is available. Existing WPCP tankage would be used for biosolids holding tanks. A belt filter press building is planned to be constructed at the site of the existing DC WPCP operations building.

In order to minimize the impact of the Donaldson's Crossroads' plant expansion on the nearby residential area, it is recommended the use of an odor control facility be incorporated into the plant design. Understanding that the ultimate selection and layout of such a facility will vary based on the final site layout, budgetary items for odor control are included, based on the Headworks building being vented to the odor control facility, and that the aerobic digesters being covered with flat covers, and the captured air being treated in the odor control facility. The potential for solar energy capture associated with the digester flat covers and utilization for energy consumption reduction will be considered during the design program.

Conveyance

Due to the expanse and nature of the interceptor enhancements required within the service area, only those segments nearest the treatment plant would be considered for augmentation during the initial phases of the project. These segments would most likely include the Oakwood Road interceptor between MH-DC-5 and MH-13 and the Giant Oaks interceptor between MH-34A and MH-24A. The total cost of these enhancements is estimated to be \$1,330,000. These interceptor line segments are presented on Figure 28 (Page 6-19).

The augmentation of the remaining interceptor segments would be completed programmatically in future phases as appropriate by the Authority funding via available CIRF balances, similar to PTSA efforts relating to the Valleybrook Interceptor in the Brush Run Sewer system (e.g. Lower Valleybrook project in 2002, Upper Valleybrook project in 2008, Willoughby Woods project in 2008, US Route 19 project to be bid in 2011 (concurrent with PennDOT's ramp realignment), the Upper Pelipetz Drive project planned for 2012 and Lower Pelipetz Drive project planned for 2013).

Lehner Lakes

The recommended alternative for the Lehner Lakes service area is a combination of Alternative 1, Continued Use of On-Lot Sewage Disposal Systems, and Alternative 5, Conveyance to the Donaldson's Crossroads Sewer System by Pump Station.

Alternative 1, Continued Use of On-Lot Sewage Disposal Systems is the only alternative in conformance with Peters Township's Comprehensive Plan which identifies that utilities shall be discouraged from extending lines into active agricultural lands. The majority of parcels with existing dwellings are large multi-acre parcels which would provide the opportunity to address malfunctioning on-lot sewage disposal systems with relocated leech fields and/or alternative on-lot systems, such as elevated mounds, sand filters, or drip irrigation systems. There are also numerous small water courses throughout the area which may provide the opportunity for Small Flow Treatment Systems discharging to surface waters.

In consideration of the foregoing recommendation, property owners should be advised that public sewers are not imminent, and therefore all on-lot sewage disposal malfunctions shall be addressed by on-lot solutions. In the event public sewerage is required to abate a public health hazard, all costs for installation of the necessary public facilities will be recovered from the beneficiaries of the improvements by a special purpose tapping fee.

Alternative No. 1, however does not rule out community on-lot sewage disposal systems where deemed appropriate.

Alternative 5, Conveyance to the Donaldson's Crossroads Sewer System by Pump Station is also selected as an alternative in order to provide for property owners that choose to develop their property at a density greater than is possible with on-lot sewage disposal systems. The

Authority's role in this alternative is limited to providing a plan to have adequate interceptor and treatment capacity to allow the recommendation to be implemented by property owners, if they so choose, within a reasonable time frame.

This alternative specifically requires construction of one, centrally located pump station, with the location of the pump station limited to the vicinity of Thomas Road and the Township border, or to the West of that point as identified on Figure 18 (Page 5-14). The construction of the pump station, force main, and collector sewers would be the responsibility and the cost of the developer, with dedication of the facilities to the Authority for perpetual ownership and maintenance. The location and design of the pump station would be in accordance with Authority requirements. It would be the developer's responsibility to obtain all necessary right of ways to facilitate this alternative.

The availability of Alternative 5 will be dependent on the implementation schedule of the DC WPCP upgrade and Giant Oaks Interceptor capacity augmentation to provide capacity for the pump station's discharge. Any developer wishing to proceed with Alternative 5 in advance of the implementation schedule presented in this Plan will be required to provide the necessary downstream capacity at their cost.

Institutional Alternatives

PTSA was incorporated on March 20, 1964 under the Municipal Authorities Act of 1945 for the purpose of providing and maintaining a sanitary sewer collection, conveyance and treatment system generally for the western portion of Peters Township. Its corporate life currently extends until August 1, 2024.

PTSA currently owns, operates and maintains the existing sanitary sewage collection, conveyance and treatment facilities in the Brush Run and DC Service areas in Peters Township. The Authority has full-time Management, Administration and Operating Staff necessary to own, operate and maintain the proposed WPCP and conveyance augmentation improvements.

PTSA has the legal authority to:

1. Implement wastewater planning recommendations,
2. Operate and maintain existing facilities,
3. Set user fees and take purchasing actions,
4. Enforce Sewer Use Ordinances, and
5. Negotiate agreements and
6. Raise capital for construction of sewage facilities via government sponsored funding programs (i.e. PENNVEST) or through private financing (i.e. revenue bond issue).

The selected institutional alternative is for the Township to delegate the responsibility for plan implementation to PTSA. The existing PTSA organization has the management, financial and operational resources necessary to implement the proposed treatment augmentation projects.

In terms of the Lehner Lakes service area to remain an on-lot disposal area for the foreseeable future, Township Ordinance 707 delegates administration of Act 537 requirements and all aspects of on-lot sewage disposal to the Washington County Sewage Council (WCSC).

EX.2C Projected Cost Estimates, User Rates and Selected Funding Sources

Project Cost Estimates

A summary of the estimated project costs associated with proposed facilities follows as Table EX-1. It is noted that values are reported in 2010 dollars as well as 2013 dollars assuming an annual 3% inflation rate.

**TABLE EX-1
ESTIMATED PROJECT COSTS FOR SELECTED ALTERNATIVES**

Description	Cost
Selected Treatment Alternative	
Construction Subtotal - Rounded	\$9,200,000
Contingency (15%)	\$1,380,000
Construction Total	\$10,580,000
Engineering, Legal and Administrative (25%)	\$2,645,000
Total Estimated Project Cost – Treatment Alternative	\$13,225,000
Selected Conveyance Alternative	
Construction Subtotal	\$925,000
Contingency (15%) - Rounded	\$139,000
Construction Total	\$1,064,000
Engineering, Legal and Administrative (25%)	\$266,000
Total Estimated Project Cost – Conveyance Alternative	\$1,330,000
Total Estimated Project Costs – Treatment and Conveyance (2010 Dollars)	\$14,555,000
Total Estimated Project Costs – Treatment and Conveyance (2013 Dollars) ¹	\$15,905,000

¹ Based on an annual 3% inflation rate for a three year period from 2010 to 2013.

User Rate Analysis

As shown the total project cost in 2013 dollars is about \$15,905,000. The soft cost (surveying, engineering, inspection, legal, financial and administrative) portion of this amount is about \$2.9M. The User Rate analysis should consider that an interim bridge loan may be required to complete the design and permitting phase prior to securing permanent financing. This bridge loan will then need to be rolled into the permanent financing. Allowing for \$1.0M and \$200,000 for WPCP and interceptor augmentation design, permitting and bidding phase tasks,

respectively, the interest costs that will need added to the borrowed amount is about \$400,000 (based on a \$1.2M, 5-year note at 6%). Therefore the total amount to be financed to fund the construction project will be about \$16,305,000.

In lieu of an interim bridge loan, the Authority could pay for the bulk of the design costs with uncommitted surplus funds thereby decreasing the amount borrowed (saving the \$400,000 in interest costs) resulting in a somewhat lower user rate than projected herein. The surplus funds could then be replenished by rolling the design costs into the new borrowing.

At the point of completing the design and securing financing (about June 2013), the existing 2009 Series bond issue will have a balance of nearly \$1,500,000. For the purposes of this User Rate Analysis it is assumed that \$1,000,000 of existing debt will be refinanced into the new financing to spread the existing debt service payments over a longer period of time. One advantage to this concept is that the existing debt service reserve fund (about \$800,000) could then be used for the new borrowing. In summary, the User Rate Analysis is based on financing \$17,305,000.

Depending on the interest rates at the time of financing in about 2013, one alternative financing strategy that may be employed is to structure the first several years of the new bond issue paying interest only (deferring principal payments) until the Series of 2009 bond issue is retired. This technique is typically called wrap financing. This financing strategy can be used to dampen debt service increases.

Annual operating costs were also evaluated and projected into the future (Year 2015 or first full year after construction). As shown in Table 43 (Page 6-23), the projected FY 2015 average user rate are approximated to range between approximately \$46/month and \$48/month contingent on funding alternative selected. This is approximately a 30% increase over current average monthly user rates of \$35.50/month (based on 5,000 gallons per month water consumption).

It is acknowledged that market conditions at the time of the financing will bear a direct impact on financing strategies employed and may have an impact on projected user rates. The user rates projected herein are based on a planning level of detail based on reasonable and foreseeable conditions at the time of Act 537 Plan development and are subject to refinement as pre-design, design and bidding phase tasks are completed.

Selected Funding Source

For the purposes of implementation of this plan, the primary funding source selected is financing through PENNVEST (\$11.0M) supplemented with a municipal bond issue in amount of \$6,305,000. It is noted that PENNVEST has a single municipal project limit of \$11.0M per project. The User Rate analysis employs the current prevailing PENNVEST Washington County Cap rate (blended rate of about 2.635% over a 20-year term) and the bond issue utilizes

a 5% interest rate over a 20-year term. The payback amount (total principal and interest payments) of the primary funding source is approximately \$24,150,000.

Should PENNVEST funding not be obtained, the secondary funding source would be funding the entire amount with a 20-Year municipal bond issue. A 5% interest rate was utilized in the User Rate analysis. The payback amount of the secondary funding source is approximately \$27,400,000.

Therefore, the selected funding source (PENNVEST and supplemental bond issue) has a grant equivalent of about \$3,250,000.

Grant funding opportunities through the H2O PA Grant program, Washington County Local Share Account (LSA) and other state and federal grant programs are to be pursued to supplement loan programs.

EX.2D Required Municipal Commitments

All required ordinances, regulations, standards and intermunicipal agreements necessary to implement the proposed technical alternatives are in place with the exception legal and administrative documents required by funding agencies that may need to be approved and/or adopted by Peters Township during the financing phase.

If the primary funding source (PENNVEST and supplemental bond issue) is implemented, a resolution from the governing body to underwrite the proposed debt with the taxing power of the Township will be required for the PENNVEST portion. However, this debt will be considering self-liquidating and be exempted from the Township's borrowing capabilities. An exclusion report in accordance with the Local Government Unit Debt Act (LGUDA) will be filed with the Pennsylvania Department of Community and Economic Development (DCED) for this purpose. Bond issue financing will not require LGUDA proceedings.

PTSA was incorporated on March 20, 1964 under the Municipal Authorities Act of 1945 for the purpose of providing and maintaining a sanitary sewer collection, conveyance and treatment system generally for the western portion of Peters Township. Its corporate life currently extends until August 1, 2024. A key municipal commitment will be to amend the PTSA's Articles of Incorporation to coincide with debt expiration and extend the corporate life of the Authority to 2035 (at a minimum).

EX.2E Implementation Schedule – Major Milestones

The initial administrative and management task for Act 537 Plan implementation is Official Plan adoption by Peters Township Council. An advertised, 30-day public review and comment period and County/Local Planning agency review is required prior to PaDEP submittal. After the public review and comment period, official adoption of the Plan by the Township is then

required prior to final plan submittal to PaDEP. The following preliminary schedule of major milestones is provided on Table EX-2. A description of technical tasks required for plan implementation is provided in Section 8.

**TABLE EX-2
Implementation Schedule-Major Milestones**

Item No.	Task Description	Preliminary Completion Date
1	Submit Final Draft Plan to the Township for Review	May 14, 2010
2	Township Work-Session to Discuss Details of Final Draft Plan	July 19, 2010
3	Public Meeting for Plan Presentation	August 19, 2010
4	End 30-day review and comment period	September 3, 2010
5	Township passes Resolution formally adopting the revision to the DC Act 537 Plan	September 13, 2010
6	Receive PaDEP Approval on the Final Act 537 Plan	December 31, 2010
7	<u>Design:</u> Award WPCP and Conveyance Augmentation design contracts	January 11, 2011
8	<u>Design:</u> Preliminary Design Completion, Preliminary Design Cost Estimates	September 15, 2011
9	<u>Design:</u> Final Design Completion, Final Design Cost Estimates	June 15, 2012
10	<u>Design:</u> WPCP – Submit permits to PaDEP; Initiate ROW acquisition (as required)	August 15, 2012
11	<u>Design:</u> Receive Permits and ROWs	February 2013
12	<u>Design:</u> Apply to PENNVEST, initiate discussion pertaining to supplemental bond funding	February 2013
13	<u>Design:</u> Close on PENNVEST funding	July 2013
14	<u>Construction:</u> Initiate construction	July 2013
15	<u>Construction:</u> Complete construction	December 2014

EX.3 MUNICIPAL ADOPTION

The initial administrative and management task for Act 537 Plan implementation is Official Plan adoption by Peters Township Council. An original signed and sealed Resolution of Adoption by Peters Township passed at the Peters Township Council meeting held on _____ is provided in Appendix Q.

EX.4 TOWNSHIP AND COUNTY PLANNING COMMISSION COMMENTS

The Peters Township Planning Commission and the Washington County Planning Commission were provided copies of the Final Draft plan by letter dated [REDACTED]. Planning Commission comments are provided in Appendix O.

EX.5 PUBLICATION

An advertised, 30-day public review and comment period for this Act 537 Plan was established from [REDACTED] to [REDACTED]. Proof of publication/proof of public notice is provided in Appendix O. A voluntary public meeting was held on [REDACTED]. At this meeting, approximately [REDACTED] people attended this meeting. A summary of the presentation is provided in Appendix O.

EX.6 COMMENTS AND RESPONSES

[REDACTED] There were no written comments received during the 30-day review and comment period.

or

[REDACTED] There were several written comments received during the 30-day review and comment period. The comments with responses for each are provided in Appendix O.

EX.7 DETAILED IMPLEMENTATION SCHEDULE

The following preliminary schedule is developed for the initial Administrative and Management task (PaDEP Act 537 Approval) as shown on Table EX-3. Tasks are presented on a sequential basis, acknowledging that some subtasks may overlap or be performed concurrently.

TABLE EX-3

Administrative and Management Tasks (Act 537 Plan Approval) Implementation Schedule

Item No.	Task Description	Preliminary Completion Date
1	Submit Draft Plan (Sections 1 through 4) to PTSA Board	April 9, 2010
2	Submit Draft Plan (Sections 5 through 9) to PTSA Board	April 27, 2010
3	PTSA Advertised Regular Scheduled Meeting to discuss Draft Plan	April 27, 2010
4	Receive PTSA comments on the Draft Plan	May 11, 2010
5	Modify Draft Plan to Incorporate PTSA comments	May 14, 2010
6	Submit Final Draft Plan to the Township for Review	May 14, 2010

7A	Township Work-Session to Present Overview of Final Draft Plan	June 7, 2010
7B	Township Work-Session to Discuss Details of Final Draft Plan	July 19, 2010
8	Receive Township Comments on Final Draft Plan	July 30, 2010
9	Initiate 30-day advertised public review and comment period	August 2, 2010
10	Incorporate Township Comments to produce Final Plan	August 5, 2010
11	Submit Final Plan to Local (Peters Township) and County (Washington County) Planning Agencies	August 5, 2010
12	Attend Peters Township Planning Commission meeting to provide overview of the Final Plan	August 12, 2010
13	Schedule Public Meeting for Plan Presentation	August 19, 2010
14	End 30-day review and comment period	September 3, 2010
15	Address comments received from Local/County Planning Agencies and general public	September 13, 2010
16	Township passes Resolution formally adopting the revision to the DC Act 537 Plan	September 13, 2010
17	Submit Final Act 537 Plan Update to PaDEP	September 15, 2010
18	Schedule meeting with PaDEP to review Final Act 537 Plan	September 2010
19	Receive PaDEP Approval on the Final Act 537 Plan	December 31, 2010

Prior to receiving formal PaDEP Act 537 Plan approval, there are certain tasks that are currently underway. These are considered technical Pre-Design tasks. These tasks primarily include the Concept Plan Preparation and Stream Modification permitting tasks as well as the flow monitoring and modeling program required to establish Oakwood Road and Giant Oaks Interceptor pipe capacities required. These tasks should be completed within the time-frame associated with receiving PaDEP Act 537 Plan approval.

Other pre-design tasks that could be completed during the time frame associated with PaDEP Act 537 Plan approval include:

- Meeting with the Township Zoning Hearing Board to obtain approval for using the recently acquired WPCP site as a "Special Exception". It is noted that the proposed WPCP site is currently zoned R-1A and a "Public Works Facility" is permitted as a "Special Exception" within the R-1A zoning district.
- A Phase I Archeological Survey of the WPCP site as well as proposed conveyance augmentation alternatives will be performed for areas that have not previously been disturbed.

- Initiate discussion with property owners on Thomas Road to evaluate if there is interest in conveying property to PTSA for a potential future Lehner Lakes pump station site.
- PENNVEST Planning Consultation meeting with the PENNVEST Regional representative.

Design and Construction

Considering a milestone date of December 31, 2010 for PaDEP approval of the Act 537 Plan update, it is anticipated that design of the selected alternative will be initiated in January 2011. Allowing for a design schedule of about 18 months, completion of the design would occur in about June 2012. At that point, rights-of-way/easement acquisition for conveyance augmentation would be initiated as well as permitting tasks. Allowing for about 6 months to complete this process yields a completion date of February 2013. Taking into consideration, PENNVEST’s current three meetings per year schedule, PENNVEST funding and supplemental bond issue funding would be applied for in February 2013 (PENNVEST cut-off date) for anticipated award at the April 2013 Board meeting. Allowing 3 months to close on the funding award, construction would be initiated in July 2013 and likely last for about 18 months till December 2014.

The following preliminary schedule shown on Table EX-4 is presented on a sequential basis, acknowledging that some subtasks may overlap or be performed concurrently.

**TABLE EX-4
Pre-Design, Design and Construction Implementation Schedule**

Item No.	Task Description	Preliminary Completion Date
1	<u>Pre-Design:</u> Issue Request for Proposal (RFP) for Phase I Archaeological Survey for proposed WPCP Site.	May 14, 2010
2	<u>Pre-Design:</u> Receive proposals for Phase I Archaeological Survey for proposed WPCP Site.	June 1, 2010
3	<u>Pre-Design:</u> Receive PaDEP and ACOE comments on proposed stream modification permitting.	June 1, 2010
4	<u>Pre-Design:</u> Award Phase I Archaeological Survey contract for proposed WPCP Site.	June 8, 2010
5	<u>Pre-Design:</u> Meet with Township Zoning Hearing Board to obtain approval for "Special Exception"	July 20, 2010
6	<u>Pre-Design:</u> Complete Flow Monitoring and Modeling Analysis (Initiated in January 2010)	October 30, 2010
7	<u>Pre-Design:</u> PENNVEST Planning Consultation Meeting	November 30, 2010

8	<u>Design</u> : Issue RFP for WPCP and Conveyance Augmentation design contracts	December 1, 2010
9	Amend PTSA Articles of Incorporation to extend PTSA corporate life	December 31, 2010
10	<u>Design</u> : Award WPCP and Conveyance Augmentation design contracts	January 11, 2011
11	<u>Design</u> : WPCP and Conveyance Augmentation design contract "kick-off" meetings	January 15, 2011
12	<u>Design</u> : WPCP - Revised concept plans (if required) construction drawing set up	March 15, 2011
13	<u>Design</u> : Conveyance Augmentation – Preliminary route alignments, construction drawing set up	March 15, 2011
14	<u>Design</u> : WPCP – Preliminary Design Completion, Preliminary Design Cost Estimates	September 15, 2011
15	<u>Design</u> : Conveyance Augmentation – Preliminary Design Completion, Preliminary Design Cost Estimates	September 15, 2011
16	<u>Design</u> : Value Engineering Study/Analysis	December 31, 2011
17	<u>Design</u> : WPCP – Final Design Completion, Final Design Cost Estimates	June 15, 2012
18	<u>Design</u> : Conveyance Augmentation – Final Design Completion, Final Design Cost Estimates	June 15, 2012
19	<u>Design</u> : WPCP – Submit permits to PaDEP	August 15, 2012
20	<u>Design</u> : Conveyance Augmentation – Submit permits to PaDEP, initiate ROW acquisition (as required)	August 15, 2012
21	<u>Design</u> : Receive Permits and ROWs	February 2013
22	<u>Design</u> : Apply to PENNVEST, initiate discussion pertaining to supplemental bond funding	February 2013
23	<u>Design</u> : Receive PENNVEST award notification	April 2013
24	<u>Design</u> : Close on PENNVEST funding	July 2013
25	<u>Construction</u> : Initiate construction	July 2013
26	<u>Construction</u> : Complete construction	December 2014

EX.8 CONSISTENCY DOCUMENTATION

This section summarizes resolution to prior acts, programs and/or policies referenced in Section 6.B. In summary, the alternatives presented herein are consistent with the following acts, programs and/or policies and do not require further resolution from a planning level perspective. Relevant correspondence can be found in Appendix O.

1. Sections 4 and 5 of the Clean Streams Law

2. Section 208 of the Clean Water Act
3. Municipal Wasteload/Chapter 94 criteria
4. Title II of the Clean Water Act or Titles II and VI of the Water Quality Act of 1987
5. Peters Township Comprehensive Plan
6. Anti-degradation requirements
 - a. Chapter 93 (Water Quality Standards),
 - b. Chapter 95 (Wastewater Treatment Requirements) and
 - c. Chapter 102 (Soil Erosion and Sediment Control).
7. Pennsylvania's Prime Agricultural Land Policy
8. Wetlands Protection Under Chapter 105
9. Protection of Rare, Endangered or Threatened Plant and Animal Species as Identified by the Pennsylvania Natural Diversity Inventory (PNDI)
10. Historical and Archaeological Resource Protection

Additional action to further demonstrate consistency with the acts, programs and/or policies typically performed during the design and permitting program when more detail is available with respect to proposed sewage facilities includes the following.

- PNDI Searches that identify the specific areas of sewer line construction (conveyance augmentation alternatives) as well as an updated PNDI Search for the proposed WPCP will be performed in the Design Program.
- Preparation of Erosion and Sedimentation (E&S) Control Plans for both sewer line construction and WPCP construction will be submitted for review and approval by the Washington County Conservation District. Dependent on the amount of disturbed area, issuance of a General NPDES Permit will likely be required. It is acknowledged that this task is pre-requisite to other PaDEP permits including a Part II Water Quality Management Permit (Part II Permit). Preparation of E&S plans will be required to incorporate Best Management Practices (BMPs) to demonstrate compliance with Chapter 102.
- A Part I Permit application will be applied for in the design phase for compliance with Chapter 93 (Water Quality Standards).
- A Part II Permit in accordance with Chapter 95 will be prepared including a Design Engineers Report documenting compliance with design standards published in the PaDEP Sewerage Manual.
- Prior to construction and issuance of a building permit and/or grading permit, the proposed WPCP will need to be reviewed by the Township Zoning Hearing Board and approved as a "Special Exception". It is noted that the proposed WPCP site is currently zoned R-1A and a "Public Works Facility" is permitted as a "Special Exception" within the R-1A zoning district.
- A detailed wetlands field evaluation will be performed to identify any potential unmapped wetlands for conveyance system alternatives. This task has been completed for the proposed WPCP site. At the time of wetlands identification, methods of construction will be evaluated to avoid or minimize any impact to wetland areas to the

extent practicable. Appropriate PaDEP or ACOE permitting (either a General Permit or a Joint Chapter 105 Permit) will be performed.

- A Phase I Archeological Survey of the WPCP site as well as proposed conveyance augmentation alternatives will be performed for areas that have not previously been disturbed.

Relevant correspondence can be found in Appendix O.

PETERS TOWNSHIP SANITARY AUTHORITY
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