6.1 CONSISTENCY EVALUATION

In addition to obtaining consistency with municipal objectives, it is important to evaluate the consistency between the wastewater management alternatives selected in this Act 537 Plan and the objectives of county, state, and federal policies and plans. As required by the Pennsylvania Sewage Facilities Act, this Act 537 Plan is evaluated for consistency with each of the following policies and plans.

6.1.1 Comprehensive Plans

All alternatives have been developed based on a desired consistency with the Westfall Township-Matamoras Borough, Milford Borough, and Pike County Comprehensive Plans. There are no major conflicts between the comprehensive plans. Some of the zoning maps are significantly more updated than the comprehensive plans and land use plans, and none of the alternatives conflict with the zoning maps.

6.1.2 Municipal Wasteload Management Plans Under Chapter 94

Westfall Township, Milford Borough, and Matamoras Borough do not own, operate, or maintain any community wastewater collection/treatment system at this time. MATW annually submits a Chapter 94 report to DEP for its wastewater treatment facility. Wastewater flow projections used in this Act 537 Plan are consistent with those included in the Chapter 94 reports.

6.1.3 Plans Developed Under the Federal Clean Streams Law, Water Quality or Clean Water Acts

Public sewage generated as a result of Alternatives 1B, 3B and 4B identified in this Plan will be conveyed via the MATW WWTP for treatment and disposal to the Delaware River. Currently, there are no TMDL requirements in Pike County. The MATW WWTP has available hydraulic capacity for the project flows from the alternatives identified in this plan. Since the available upgrades in capacity have already been completed and approved by the DEP and DRBC and no further hydraulic upgrades are planned, the MATW WWTP meets the requirements. No Clean Water Plans have been developed.

6.1.4 Anti-degradation Requirements Contained in Chapters 93, 95, and 102

The implementation of the recommended alternatives identified in this Act 537 Plan would not result in a conflict with the regulations of Chapter 93, Water Quality Standards; Chapter 95, Wastewater Treatment Requirements; or Chapter 102, Erosion and Sediment Control.

It is expected that the construction of public sewer extensions to serve the Planning Area will enhance water quality in the Planning Areas by reducing the number of active, improperly functioning OLDS. Any sewer system improvements constructed within the Planning Area during implementation of the selected alternatives will implement a soil and erosion sedimentation control plan. Finally, the MATW WWTP discharges directly to the Delaware River which has a Chapter 93 designation of Warm-Water Fishery (WWF). The DRBC was contacted regarding concerns for inter-basin groundwater transfer and the need for an anti-degradation analysis. Since the permitted average flow is not being increased and both high quality watersheds discharge directly to the Delaware River, the DRBC is not requesting an anti-degradation analysis. The Docket shall be updated after Plan Approval. The correspondence with DRBC is saved in Appendix J (Correspondence).

6.1.5 Pennsylvania's Prime Agricultural Land Policy

Map No. 3 contained in Appendix C displays the location of Prime Agricultural Soils in the three municipalities in the Planning Area. As can be seen from Map No. 4, prime agricultural soils are located within the Planning Area. The proposed alternatives are primarily being constructed along the existing roadway. In addition, the proposed conveyance lines briefly cross soils of statewide importance. However, construction of any structural alternative will result in minimal disturbance to these soils, if any; however, approval from the Agricultural Land Condemnation Approval Board shall be secured, as required.

6.1.6 Stormwater Management Plans Approved by the Department

Stormwater management in the Planning Area is dictated by Pike County's Act 167 Plan. In each municipality's *Subdivision and Land Development Ordinance* or *Comprehensive Plan*, stormwater guidelines are included and consistent. There are no inconsistencies with the stormwater management plans resulting from this Act 537 Plan. Any construction activities resulting from this Act 537 Plan will comply with the Plans.

6.1.7 Wetland Protection

Based on the National Wetlands Inventory mapping (refer to Map No, 2 in Appendix C), wetlands are located along stream corridors in the planning area. However, the recommended alternatives are not located in any of the National Wetlands Inventory Mapping. A wetland delineation to identify and define the actual locations of wetlands and their boundaries will be performed during the design phase.

Since all of the wetlands in the Planning Area are High Quality or Exceptional Value, the wetlands cannot be disturbed. If wetland impacts are unavoidable during construction, these areas will be restored to preconstruction conditions once construction of the sewer facilities is complete. The wetland soils will be stockpiled during any excavation and restored to the appropriate seed mix for the surrounding native vegetation. If permanent impacts to wetlands are proposed and mitigation is necessary, a full mitigation plan will be developed in accordance with the latest PA DEP and United States Army Corps of Engineers (USACE) guidelines. All required permits will be obtained prior to the start of construction.

6.1.8 Protection of Rare and Endangered Plant and Animal Species

The Pennsylvania Natural Diversity Inventory (PNDI) was evaluated for adverse effects resulting from the implementation of the alternatives proposed in this Plan. The PNDI was submitted, and no major conflicts were identified. Precautions shall be taken during Construction which are identified in Appendix K. Specifically, there are avoidance measures for the endangered dwarf wedgemussel, and a Bald Eagle Screen Form shall be completed closer to implementation of the selected alternatives.

6.1.9 Pennsylvania Historic Preservation Act

The Pennsylvania Historic and Museum Commission (PHMC) was consulted to identify the potential impact of the alternatives evaluated by this Plan. There were no conflicts. The review is included in Appendix K.

6.2 PENNVEST CONSISTENCY

When considering PENNVEST funding, the following social, recreational, and environmental issues must be considered in addition to the issues identified above.

6.2.1 Recreation and Open Space

The alternatives recommended by this Plan will not in itself create any new recreational or open space opportunities since the majority of the proposed sewer facilities are within existing road right-of-way or proposed land development.

6.2.2 Air Quality

With the exception of the minimal dust and exhaust during the construction of any sanitary sewer facilities, the proposed project will not create any significant impacts on air quality.

6.2.3 Fish and Wildlife

The elimination of discharges from the two package wastewater treatment facilities and on-lot malfunctions in the Planning Area to surface waters in the three municipalities will have a positive impact on aquatic life. None of the recommendations proposed by this Plan are anticipated to have negative impacts on fish and wildlife. The proposed sewers are going along existing roadways, so wildlife impacts are considered to be very minimal.

6.2.4 Wild and Scenic Rivers

There are no rivers in the Planning Area considered scenic according to the Pennsylvania Scenic Rivers Act.

6.2.5 Coastal Zone Management

There are no coastal areas within the planning area.

6.2.6 Socio-Economic Impacts

The availability of public sewer service in the municipalities is considered necessary to maintain community viability, protection of public health, and secondarily to protect property investments.

6.2.7 Water Supplies

Water supplies, both public and private, will not be negatively impacted by the recommended alternatives of this Plan. In fact, water supplies may be positively impacted through elimination of pollution entering existing groundwater sources from existing malfunctioning OLDS and greywater discharges.

6.2.8 Consistency Requirements

No Inconsistencies were identified with the proposed alternatives.

6.3 WATER QUALITY STANDARDS

The wastewater management alternatives identified and evaluated in Chapter No. 5 were selected based on their ability to provide adequate collection, conveyance and treatment of wastewater generated in the Planning Area and throughout the three municipalities.

Implementation of the structural alternatives will not require new public wastewater treatment facilities as wastewater from this area is proposed to be conveyed to an existing wastewater treatment facility with hydraulic and organic capacity for all flows identified in the Plan.

6.4 COST ANALYSIS

Estimates of construction costs and overall project costs were presented for all of the structural alternatives for un-sewered areas discussed in Chapter No. 5. These costs, as well as operation and maintenance costs, present worth costs, and estimated increases in user rates for each alternative are found in Chapter No. 5. It should be noted that the cost estimates prepared as part of this Plan are conceptual-level estimates, which are appropriate for preliminary financing purposes; however, should not yet be considered as final costs for bidding/construction.

6.5 FUNDING ALTERNATIVES FOR THE PLANNING AREA

The most significant challenge for a sewerage project as proposed in this plan is the identification of a financing plan which residents and businesses can afford. The revenue needed to plan and construct a sewerage project can be separated into two (2) general categories. The first category, referred to as up-front revenues, is the total revenue that can be reasonably collected in the initial stages of the project. Up-front revenues typically consist of reserved local funds, government grants, developer contributions and capital charge fees. Up-front revenues are used to offset the costs of planning and constructing the project. In most cases, these revenues are insufficient to cover the total costs of the project and additional revenue is required.

The second category of revenue is financing, which generates the funds needed to pay for the remainder of the project. Several options are available for financing, including governmental grants or loans, private loans, or bond issuances.

6.5.1 Sources of Up-Front Revenue

For smaller communities, it is important to obtain as much up-front revenue as reasonably possible to reduce the total amount of the project that must be financed. In the past, there were several federal programs that provided grants for these types of projects. Over the years, these programs have been gradually eliminated as the federal government has transferred most of the financial responsibility for these programs to the state and local level. Consequently, competition for these funds is strong, and the majority of available grant money is generally funneled to the most economically distressed communities. As a result, most up-front revenue is now generated locally through tapping fees and contributions by land developers, as applicable.

6.5.2 Pennsylvania Infrastructure Investment Authority (PENNVEST)

The PENNVEST program was established by the Pennsylvania State Legislature to address the health risks posed by inadequate water and wastewater facilities within the Commonwealth. The principal mission of the PENNVEST program is to provide financial assistance for projects that protect the public health and promote economic development in Pennsylvania. Since its inception, PENNVEST has been primarily a low-interest revolving loan program. Grant funding, in the form of a principal forgiveness loan, is available in some instances where PENNVEST has determined that an all-loan offer is not affordable for an applicant and its residents. The recent

Bipartisan Infrastructure Law (BIL) has allowed PENNVEST to allocate additional loan funds to eligible infrastructure development projects.

6.5.3 Developer Contributions

Contributions by land developers are becoming a relatively common source for up-front revenue. The funds provided by the developer are directly related to the benefits that the development will derive from the use of the public facilities. In some cases, the developer may actually construct the necessary improvements at his expense and then transfer ownership of the improvements to the local municipality. In other cases, in lieu of actually constructing the improvements, the developer may make a cash payment to the municipality to offset a portion of the costs for the improvements.

6.5.4 Capital Charges Fees

Capital charges fees, otherwise referred to as tapping fees, are an equitable means by which a municipality/authority can assess a portion of the capital costs of constructing the new facilities to all users of the proposed system. The imposition of these fees is based upon the concept that all users of the system derive a benefit from this use, and that the costs of this benefit should be allocated among all users without prejudice or penalty. For this reason, tapping fees are usually based on a measure of the total flow contributed by the service connection or lateral.

PA Act 57 of 2003 contains extensive provisions regarding calculation and types of fees that may be charged by municipalities and authorities. Each community is required to follow guidelines of the Act to determine the maximum allowable tapping fee charge. Capital charges fees are an established method for raising up-front revenue and would be an appropriate part of the community's financing plan for the proposed project.

Connection and tapping fees have the greatest financial impact on residents of existing homes. Unlike new residential development, where the connection and tapping fee costs are included in total construction costs and financed accordingly, existing residents must pay these fees from their own resources or by securing a loan from a local bank. In addition to these fees, the residents must also pay the costs to extend a sewer lateral from the lateral stub provided to the point of interconnection with the building sewer or to the grinder pump.

6.5.5 Sources of Financing

After all sources of up-front revenue have been identified, a reasonable forecast of the amount of the project that must be financed can be determined. There are several alternatives for financing a public sewer project. Not all of these alternatives are equally suitable for application to the project. The choice of financing method varies from project to project, and is dependent upon the applicant's current financial situation and the amount to be borrowed. A summary of the various means of financing public sewer projects follows.

Pennsylvania Infrastructure Investment Authority (PENNVEST)

The PENNVEST program offers below market-rate interest financing for public sewer projects in the Commonwealth of Pennsylvania. Grant funding, in the form of principal forgiveness loans, may be available as well to applicants who qualify based on PENNVEST's financial analysis. PENNVEST may receive funds from the following sources:

1. State funds appropriated to the Municipality;
2. Federal funds appropriated to or granted to the State or Municipality; and
3. Proceeds from the sale of bonds.

In accordance with the requirements of the Water Quality Act of 1987, PENNVEST has established and administers their Clean Water State Revolving Fund. PENNVEST's Board may also establish non-revolving funds and accounts. The monies deposited with PENNVEST as repayment of the principal and interest due on loans issued from the program are used to pay PENNVEST's indebtedness. The criteria considered by the PENNVEST Board when evaluating applications are summarized as follows:

1. The project's ability to improve the health, safety, welfare, or economic well-being of the citizens of the Commonwealth.
2. The project's ability to lead to an effective or complete solution to the problems of the system and bring it into compliance with state and federal regulations.
3. The cost-effectiveness of the proposed project when compared with other alternatives.
4. The consistency of the project with state and regional resource management and economic development plans.
5. Demonstration of the applicant's ability to operate and maintain the project in the proper manner.
6. The ability to promote consolidation of water and wastewater systems where consolidation would provide more effective service of the customers.
7. The availability of other sources of funds at reasonable rates to finance all or portions of the project.

During the preparation of this Plan, PENNVEST County Cap Rates for Pike County were listed at 1.000% for years 1-5 and 1.743% for years 6-20. This loan may cover the entire project costs or only a portion of the total costs at the discretion of PENNVEST, and based on community need. Applications are typically received, and PENNVEST funding granted, four times per year.

PENNVEST financing offers several advantages in addition to below-market interest rates and possible grants. For example, PENNVEST funding is available, for eligible applicants, to pay for engineering and planning costs prior to the completion of the final design under their advance funding loan procedure. Construction inspection costs are also eligible under the PENNVEST program. Participation in this program does, however, impose additional responsibilities upon the municipality. Good accounting and administrative procedures must be followed and the use of funds from this program is subject to audit at any time by the State Comptroller's office. Additionally, PENNVEST relies on PA DEP to evaluate the cost effectiveness of the proposed project and verify that PENNVEST funds are being utilized in the appropriate manner. PA DEP will conduct occasional site visits on PENNVEST's behalf and they also provide input to PENNVEST on whether or not to approve payment for changes made during construction.

In order for PENNVEST to maximize the use of its funds, public sewerage projects must meet federal requirements as well as state requirements since PENNVEST receives funds from the federal government to capitalize the Water Pollution Control Revolving Loan Fund. In addition to an

approved Act 537 Plan, the following additional planning assessments and investigations must be completed (see Section 6.2):

1. Assessment of innovative and alternative technologies.
2. Investigation of open space and recreational opportunities in conjunction with the public sewer project.
3. Alternative evaluation that provides thorough justification for the selected alternative.
4. Environmental assessment to assure that the project complies with the Water Quality Act and will undergo a review in accordance with the National Environmental Policy Act (NEPA).
5. Public participation.

Other special requirements of the PENNVEST program include the following:

1. A value engineering review of all projects having an estimated construction cost exceeding $10 million to verify that the proposed work is cost-effective.
2. The applicant must have adequate rates in place for the system's users, sewer use ordinance, and financial capability. The applicant must demonstrate sufficient legal, institutional, managerial, and financial capability to construct, operate, and maintain the proposed project.
3. The applicant must comply with the federal Davis-Bacon Act regarding labor wage rates.
4. The applicant must comply with MBE/WBE/DBE affirmative action steps.
5. Currently the applicant must comply with BABA Act requirements.
6. One (1) year after the completion of construction and the initiation of operation, the applicant must certify that the treatment facility meets all design specifications and effluent limitations stipulated in its operation permit.

To initiate a request for PENNVEST financial assistance, an electronic application must be completed. The information provided in this application would be the basis by which PENNVEST makes its decision on whether the project is eligible for funding.

The decision to seek PENNVEST funding must be analyzed on an individual basis depending on the terms and interest rate of the loan. If a decision is made to seek PENNVEST funding, the implementing party must be prepared to comply with the regulatory requirements that are inherent to the program. Documentation requirements for a PENNVEST financing are quite extensive.

Rural Utility Service (RUS) – U.S. Department of Agriculture

The R.U.S. Loan Program makes funding available for the development of water and waste disposal systems in rural areas and towns with populations less than 10,000. The funds are available to public entities such as municipalities, counties, special-purpose districts, Indian tribes, and corporations not operated for profit. R.U.S. also guarantees water and waste disposal loans made by banks and other eligible lenders.

Three interest rates are used. They are set periodically based on an index of current market yields for municipal obligations. The rates are as follows:

1. The *Poverty Rate* interest rate applies when:
   a. The primary purpose of the loan is to upgrade existing facilities or construct new facilities required to meet applicable health or sanitary standards; and
   b. The median household income (MHI) of the service area is below the poverty line for a family of four or below 80 percent of the Statewide Nonmetropolitan MHI (SNMHI).
2. The *Market Rate* is set quarterly based on the average of the "Bond Buyer" 1-Bond Index over a four week period prior to the beginning of the quarter. It applies to loans for projects where the MHI of the service area exceeds the SNMHI.
3. The *Intermediate Rate* is the poverty rate plus approximately half of the difference between the poverty rate and the market rate, but not to exceed 7 percent. It applies to loans that do not meet the criteria for either the poverty rate or the market rate.

The law authorizing the R.U.S. program allows a maximum repayment period of 40 years. However, the repayment period cannot exceed the useful life of the facilities financed or any statutory limitation on the applicant's borrowing authority.

To initiate a request for R.U.S. financial assistance, an application form must be completed and filed with the USDA Rural Development office serving the applicant's area. The information provided in this application would be the basis by which R.U.S. makes its decision on whether the project is eligible for funding.

Municipal Bond Issue

There are several types of bonds, some are taxable and some are tax-exempt. The general classification of municipal bonds usually refers to tax-exempt bonds. There are three (3) types of municipal bonds generally used to finance public works projects:

1. *General Obligation Bonds* are tax-free bonds that are secured by the pledge of the full faith, credit, and taxing power of the issuing municipality. This means that this type of bond is backed by all of the taxes on real estate and personal property within the jurisdiction of the issuing municipality. It involves minimum risk to the investor and, therefore, can be issued at a lower rate of interest than other types of bonds.

2. *Dedicated Tax Bonds* are payable only from the proceeds from a special tax and they are not guaranteed by the full faith, credit, and taxing power of the issuing agency. An example of a special dedicated tax is the special assessment against property, which is adjacent to, and the principal beneficiary of the improvement. The gasoline tax used to finance highway construction is another example.

3. *Revenue Bonds* are payable from revenues derived from the use of the improvement such as tolls, sewer bills, or rent paid by users of the improvement and do not otherwise represent an obligation of the issuing municipality. Revenue Bonds are not ordinarily subject to

statutory or constitutional debt limitations. They are often issued by commissions, authorities, and other public agencies created for the specific purpose of financing, constructing, and operating essential public projects.

Typically, municipal bonds are sold to an investment-banking firm, which then resells the bonds to individual investors. The advantage of municipal bonds to the investor is their tax-free status. A bond discount (a percentage of the total bond issue) serves as the investment banker's commission. Before bonds are sold, they must be rated on the basis of the risk to the investor by a rating agency such as Standard and Poor's or Moody's. The higher the rating, the lower the risk to the investor and, consequently, the lower the interest rate that must be paid on the bond. The legal instrument that sets forth the rules that must be observed by the issuing agency is the Trust Indenture. The Trust Indenture is prepared by the Bond Counsel and must be printed along with the bonds. Due to specific requirements as to the denominations of the bonds and the methods and materials used to print the bonds and Trust Indenture, the printing costs can be substantial. A Trustee is required to administer the bond issue and ensure the terms of the Trust Indenture are observed. For these services, the municipality/authority will incur an annual Trustee fee.

Interest rates on bond issues vary depending upon market trends, the rating of the issuing agency, and other factors. The longer the repayment period is extended, the lower the annual debt service and the higher the total amount of interest that must be paid.

A municipal bond issue offers the advantage of long-term fixed rate financing and the opportunity for local investment. The financing arrangement and approval period is shorter than what it is with the PENNVEST program and the three municipalities or MATW would retain more flexibility for future borrowing. The disadvantage of a municipal bond issue is that the interest rates are often higher than the maximum USDA or PENNVEST interest rates. Since there are no grants involved, the cost of the bond issuance is 100% locally funded. The additional costs incurred to prepare the Trust Indenture, pay the Trustee Fees, fund the cover percentage, and to establish a Debt Service Reserve Fund must also be considered. The financial services costs associated with the issuance of a municipal bond issue are also much higher than the costs for USDA or PENNVEST funding.

Bank Loan

Because of favorable interest rates, bank loans can be a viable source for funding small to medium-sized public works projects. The terms of a bank loan may vary depending upon the bank and the amount of money to be borrowed. The interest rate available from banks varies depending upon market conditions; however, the rate available to municipalities will generally be at a discount due to the tax advantages received by the bank. Terms and conditions of bank loans vary in a manner similar to personal loans and home mortgages.

The principle advantage of a bank loan is that it can usually be obtained at a favorable interest rate without the cumbersome requirements of a bond issuance. The financial service costs associated with obtaining the loan are also typically lower than that for a similar bond issuance. Since these financial service costs are generally included in the total project costs, the impact of these charges can be minimized. Another advantage of the bank loan is that it does not have restrictive coverage requirements, trustee fees, and Trust Indenture preparation charges, as does a bond issue.

6.5.6 Funding Considerations

The funding options available to finance the proposed structural alternative been examined in this chapter. The primary source of financing for all three alternatives is USDA Financing. PENNVEST Financing would be the secondary selected financing source. The available grants for the municipalities were reviewed and a complete list of targeted grant opportunities are included in Appendix P.

6.6 PHASED IMPLEMENTATION

The three major types of alternatives are broken into phases. All three phases will begin after approval of the Act 537 Plan. As noted in the Plan, an OLDs management ordinance shall be adopted as part of Phase I, and the three recommended structural alternatives shall be implemented as part of Phase II. The Milford Borough Shallow Groundwater Analysis and eventual Special Study shall be adopted as part of Phase III. The full implementation schedule is shown in Chapter 8, which provides a breakdown of the activities required for each Alternative.

6.7 ADMINISTRATIVE ORGANIZATION AND LEGAL AUTHORITY FOR IMPLEMENTATION

The implementation of the alternatives identified in this Act 537 Plan will require administrative organization(s) that can incur indebtedness on behalf of the project, can guide the project to completion, and provide the necessary operation and maintenance to the project. The municipal authorities (Municipal Authority of the Township of Westfall, Milford Water Authority, and Matamoras Municipal Authority) in the region are recommended as the agencies to provide funding for and to implement the proposed alternatives. The inter-municipal agreement has not been finalized at the time of this Plan. A draft Inter-municipal agreement is included in Appendix N. Matamoras Municipal Authority would own and operate the wastewater system in Matamoras Borough, and Milford Water Authority would own and operate the wastewater system in Milford Borough as well as the passthrough line that runs through Milford Township. MATW would continue to own and operate the wastewater system in Westfall Township as well as the existing WWTP. As identified in the implementation schedule in Chapter 8, the inter-municipal agreements shall be finalized in Year 0 after the Act 537 is approved.