

## **8.1 SELECTED ALTERNATIVE(S)**

### **8.1.1 Selected Sanitary Sewer Collection and Conveyance Alternative**

As discussed throughout this Plan, there is adequate documentation available and reasoning to justify the provision of public to sewer within the Study Areas, specifically Matamoras Borough, Route 6/209 in Westfall Township, and Broad and Harford Street in Milford Borough. As detailed in Chapter No. 5, the most advantageous alternative for Matamoras Borough is Alternative No. 2B, Alternative No. 3B for Westfall Township, and Alternative No. 6F for Milford Borough.

Milford Township has selected no structural alternative due to the OLDS survey results, well water sampling results, and the adequate drainage based on the soil data. Instead, Milford Township will focus on OLDS maintenance. Since there is no plan for a mandatory connection ordinance in Milford Township, no immediate connections are projected in the Study, but the potential future flows in Milford Township are accounted for in the Study.

These alternatives are dependent upon the finalization of inter-municipal agreement between each of the four municipalities, MATW, MWA, and MMA, availability of favorable funding with maximum grants, and the potential contributions made by land developers or private entities at the time of implementation. Alternative No. 2B provides public sewer to the Matamoras Borough Planning Area along Pennsylvania Avenue as well as municipal roads that had been identified as needs areas in the Tier 2 Surveys. These areas are proposed to be collected through low-pressure sewer which is directly conveyed to the existing MATW force main near McDonald's, where the flows would be fed to the MATW Pump Station #1. MATW Pump Station #1 would then convey the wastewater flow into MATW WWTP. Both the WWTP and MATW Pump Station #1 have the hydraulic capacity to handle projected flows from Alternatives No. 2B, No. 3B and No. 6F. Alternative No. 3B provides sewer to Westfall Township Southwest along Route 6/209 using a low-pressure system. The low-pressure line would extend the existing MATW force main to the Milford Township/ Westfall Township border. Alternative 6F provides sewer to Milford Borough along Route 6/209, Broad Street, and East and West Harford Street. In addition, future capacity allocation has been assumed for potential future connections along Route 6/209 in Milford Township. The low-pressure sewer line is proposed to extend through Milford Township along Route 6/209 before connecting with the proposed sewer line in Alternative No. 3B. The estimated cost per EDU for each proposed structural alternative are presented in Tables 8-3 at the end of this Chapter.

The implementation of Alternatives No. 2B, No. 3B, and No. 6F has been chosen and is anticipated to be completed in accordance with the projected implementation schedule assuming that an finalized inter-municipal agreement between all municipalities and authorities is finalized and funding is secured. Without the finalized inter-municipal agreement, development agreement(s), and favorable funding (public and private) these structural alternatives are not considered to be feasible and will not be implemented.

### **8.1.2 OLDS Sewage Management Program**

As previously stated, Milford Borough, Westfall Township, Milford Township, and Matamoras have each chosen to implement an official On-Lot Sewage Management Ordinance for each municipality.

## 8.2 CAPITAL FINANCING PLAN FOR SELECTED STRUCTURAL ALTERNATIVE(S)

The estimated project cost for the selected alternative for the Matamoras Borough Study Area (Alternative 2B) is approximately \$7,100,000.00. The estimated project cost for the selected alternative for the Westfall Township Southwest Study Area (Alternative 3B) is approximately \$3,100,000. The estimated project cost for the selected alternative for Milford Borough (Alternative 6F) is \$6,100,000.

For the financial analysis, a wholesale rate of \$25.00/EDU was assumed. The estimated monthly cost per EDU for Alternative No. 2B would be approximately \$82/month in Matamoras Borough utilizing assumed USDA financing with an assumed 45% grant. In Matamoras Borough, the Matamoras Municipal Authority will own and maintain Matamoras' Collection System and be responsible for any tasks related to the upkeep of the system. The estimated monthly cost per EDU for Alternative No. 6F in Milford Borough would be approximately \$76/month utilizing an assumed USDA financing with an assumed 45% grant. The estimated monthly cost per EDU for Alternative No. 3B utilizing assumed USDA financing would be approximately \$60/month. Milford Water Authority will own and maintain the Sewer Collection System in both Milford Township and Milford Borough and be responsible for any tasks related to the operation and maintenance of the system. The existing user rate for MATW customers is \$60/month, and without favorable funding, the rates for service in Milford Borough and Matamoras Borough would need to match the projected numbers above in order to fund the proposed projects. MATW shall also continue to be the institution responsible for owning and maintaining the MATW WWTP and MATW system.

In order to implement these structural alternatives while maintaining an affordable user rate, a more detailed financing plan consisting of the payment of tapping fees from new connections, grant money, capital contributions from developers, and a low interest (PENNVEST, R.U.S., County Grants, RCAP, etc.) loan or any combination is required. The funding would also need to be coordinated with MATW's funding effort and schedule. Prior to connections being made in Alternative No. 6F, Alternative No. 3B's conveyance lines must be completed. Prior to preliminary design, a more detailed financial and funding analysis should be undertaken to examine all funding and financing options available at the time of project implementation. Funding scenarios studied should include, at a minimum, (1) the use of grant monies to offset the capital costs of the project; (2) the use of potential developer capital contributions to offset the capital costs of the project; (3) the ability to combine debt service and operation and maintenance costs into a reasonable rate structure (both tapping fees and user rates), and (4) combinations of funding options.

### 8.3 PROJECT IMPLEMENTATION SCHEDULE

This project schedule for the proposed wastewater collection system extensions is contingent upon the receipt of affordable funding. However, in the immediate future, Milford Borough, Westfall Township, Milford Township, and Matamoras Borough should each begin with implementing their OLDS Sewage Management Ordinance period as shown below:

**Table 8-1 Implementation Schedule (OLDS Sewage Management Ordinance Phase I)**

Years from DEP Approval	OLDS Sewage Management Ordinance Phase I
0	Develop Draft On-Lot Disposal System Management Ordinance
	Provide Public Education for On-Lot Disposal System Management Ordinance
1	Finalize and Adopt On-Lot Disposal System Management Ordinance
2	Implement On-lot Disposal System Management Ordinance, Begin Pumping Cycles

**Table 8-2 Implementation Schedule (Sewer System Extensions)**

Years after DEP Approval (1)	Selected Alternatives Phase II
0	Finalize Inter-municipal Agreements with MATW
	Pursue Funding Opportunities for Construction of Alternative 2B, 3B, 6F Facilities
1	Design and Submit Part II WQM Permit for Alternative 2B, 3B, and 6F Facilities
2	Receive Part II WQM Permit Approval
2.5	Apply for and Obtain Project Financing
3	Bidding of Project
3.1	Finance Closing
3.5	Initiation of Construction
3.5	Substantial Completion
6	Construction Completion/ Final Restoration and connections

Note (1): Without an updated inter-municipal agreement (including updates to the MATW rules and regulations), development agreement(s), and favorable funding (public and private) these alternatives may not be feasible and may not be implemented. The Timeline for the implementation schedule begins on the Approval of the Act 537 Plan.

Table 8-3 Summary of Financing Options for Selected Alternatives (Applying Separately)

Milford - Selected Alternative 6F			Project Cost:		\$ 6,100,000		Annual O&M Cost:		\$ 101,200		No. of EDUs		284	
Option	Description	Tapping Fee Towards Pjt	Grant	Loan	Interest Rate	Term (Yrs)	Annual DS Cost	Resulting Annual User Rate/EDU*	Resulting Monthly User Rate/EDU*	Total Interest over Term of Loan				
6F - 1a	PENNVEST - w/ Anticipated Grant	\$ -	\$ 1,785,000	\$ 4,315,000	1.000%	20	\$239,117	\$ 1,410	\$ 117	\$467,342				
6F- 1b	PENNVEST - w/ Max Grant	\$ -	\$ 4,250,000	\$ 1,850,000	1.000%	20	\$102,518	\$ 844	\$ 70	\$200,367				
6F- 2	USDA - w/ 45% Grant	\$ -	\$ 2,745,000	\$ 3,355,000	1.875%	40	\$119,972	\$ 916	\$ 76	\$1,443,875				
6F- 3	Bank Loan	\$ -	\$ -	\$ 6,100,000	4.250%	20	\$458,841	\$ 2,320	\$ 193	\$3,076,820				
6F- 4	Bond Issue	\$ -	\$ -	\$ 6,100,000	4.500%	30	\$374,488	\$ 1,971	\$ 164	\$5,134,652				

Matamoras - Selected Alternative 2B			Project Cost:		\$ 7,100,000		Annual O&M Cost:		\$ 89,800		No. of EDUs		276	
Option	Description	Tapping Fee Towards Pjt	Grant	Loan	Interest Rate	Term (Yrs)	Annual DS Cost	Resulting Annual User Rate/EDU*	Resulting Monthly User Rate/EDU*	Total Interest over Term of Loan				
2B - 1a	PENNVEST - w/ Anticipated Grant	\$ -	\$ 819,000	\$ 6,281,000	1.000%	20	\$348,064	\$ 1,866	\$ 156	\$680,272				
2B - 1b	PENNVEST - w/ Max Grant	\$ -	\$ 1,950,000	\$ 5,150,000	1.000%	20	\$285,389	\$ 1,599	\$ 133	\$557,777				
2B - 2	USDA - w/ 45% Grant	\$ -	\$ 3,195,000	\$ 3,905,000	1.875%	40	\$139,639	\$ 978	\$ 82	\$1,680,576				
2B - 3	Bank Loan	\$ -	\$ -	\$ 7,100,000	4.250%	20	\$534,061	\$ 2,659	\$ 222	\$3,581,217				
2B - 4	Bond Issue	\$ -	\$ -	\$ 7,100,000	4.500%	30	\$435,880	\$ 2,241	\$ 187	\$5,976,399				

Westfall - Selected Alternative 3B			Project Cost:		\$ 3,100,000		Annual O&M Cost:		\$ 672,600		No. of Total EDUs		1121	
											No. of New EDUs		128	
Option	Description	Reserve Funds & Tapping Fee Towards Pjt	Grant	Loan	Interest Rate	Term (Yrs)	Annual DS Cost	Resulting Annual User Rate/EDU*	Resulting Monthly User Rate/EDU*	Total Interest over Term of Loan				
3B - 1a	PENNVEST - w/ Anticipated Grant	\$ 880,640	\$ -	\$ 2,219,360	1.000%	20	\$122,987	\$ 767	\$ 64	\$240,371				
3B - 1b	PENNVEST - w/ Max Grant	\$ 880,640	\$ -	\$ 2,219,360	1.000%	20	\$122,987	\$ 767	\$ 64	\$240,371				
3B - 2	USDA	\$ 880,640	\$ -	\$ 2,219,360	1.875%	40	\$79,362	\$ 725	\$ 60	\$955,135				
3B - 3	Bank Loan	\$ 880,640	\$ -	\$ 2,219,360	4.250%	20	\$166,940	\$ 810	\$ 67	\$1,119,438				
3B - 4	Bond Issue	\$ 880,640	\$ -	\$ 2,219,360	4.500%	30	\$136,250	\$ 780	\$ 65	\$1,868,138				

- Notes:
- 1. Rate projections assumes 7.25% delinquency rate for retail customers and 15% for wholesale.
  - 2. Assumes existing Westfall Authority reserve funds put towards capital project costs and used to lower amount financed by debt.
  - 3. Assumes tapping fee revenue received by Westfall from new connections will be set aside in a reserve account for future capital improvement needs
  - 4. Assumes annual retail and wholesale user charges from Westfall Authority are reduced by \$20/month and \$10/month respectively to eliminate budgeted depreciation expense for the initial years of service.
  - 5. Assumes initial wholesale rate of \$25/EDU/month.