

8.1 SELECTED ALTERNATIVE(S)

There is sufficient documentation available to justify the provision of public sewer service to the S.R. 34 Planned Growth Area to include the Juniata Parkway Study Area. As detailed in Chapter 5, the most advantageous structural alternative for the S.R. 34 Planned Growth Area is Alternative 4A which is dependent upon a favorable inter-municipal agreement with NBMA, availability of public funding, and the financial contributions made by land developers at the time of implementation. Alternative 4A provides public sewers to the S.R. 34 Planned Growth Area. Wastewater from the Juniata Parkway Study Area is proposed to be collected via a combination of gravity sewer and low-pressure sewers and conveyed to the proposed Red Hill Road Pump Station by the proposed Juniata Parkway Pump Station. The Juniata Parkway Pump Station should be sized to handle projected future flow from the Buffalo Crossing Development, any additional planned and projected flow from the Rural Growth Area, and for any probable future sewer extensions along Juniata Parkway East. Wastewater from Newport Plaza, a portion of West Shortcut Road, Church Road, Burd Road, and the Juniata Parkway Study Area will be pumped to a gravity main located along Red Hill Road (S.R. 34). The properties along Cramer Court are proposed to connect to the force main by a low pressure sewer extension. It is anticipated that properties located below the grade of Red Hill Road will need grinder pumps to connect to the gravity main. Final conveyance of wastewater to the NBMA WWTP will be provided by a new proposed pump station (Juniata River Pump Station). It is also anticipated that the NBMA WWTP would be expanded to handle the additional wastewater plus an allocation for future flows, and that approximately 34 properties would require a grinder pump and low pressure sewer lateral to connect to the proposed sanitary sewers; however, a final determination of the number of grinder pumps needed requires additional topographical survey and design-level efforts beyond the scope of this Plan. This alternative is environmentally sound, resulting in the abandonment of malfunctioning OLDS and packaged wastewater treatment plants with secondary treatment provided at the existing NBMA WWTP.

The implementation of the structural alternative serving the S.R. 34 Planned Growth Area shall be completed in accordance with the projected implementation schedule assuming that a favorable inter-municipal agreement with NBMA can be negotiated and funding secured. Without the favorable inter-municipal agreement, development agreements, and favorable funding (public and private) this alternative is not feasible and will not be implemented. The structural alternatives shall be constructed, owned, operated, maintained, and administered by the Howe Township Municipal Authority.

The sanitary survey and well water sampling conducted as part of this Act 537 Plan indicated the existence of OLDS and the presence of *E-coli* bacteria in well water samples taken throughout the Township; however the greatest area of concern is the Juniata Parkway Study Area due to not only malfunctioning OLDS and contaminated wells, but also lot sizes, soil types, and location in the floodplain of the Juniata River. Structural alternatives for the provision of public sewer service to the S.R. 34 Planned Growth Area and the Rural Focus Area as presented in Chapter 5 of the Plan, were evaluated due to the projected development and economic growth of these areas as well as existing and proposed packaged WWTPs. The structural alternatives for the Rural Focus Area are not economically feasible due to lack of residential density and projected development. As grant monies or other capital contributions become available and the selected structural alternative is completed, the provision of public sewer service to the Rural Focus Area may be reevaluated to determine cost effectiveness.

As previously stated, the Township has proposed to adopt and implement an On-lot Sewage Management Ordinance as a method to prevent further malfunction of OLDS and degradation of drinking water supplies in throughout the Township.

8.2 CAPITAL FINANCING PLAN FOR SELECTED STRUCTURAL ALTERNATIVE(S)

The estimated project cost of the recommended structural alternative for the S.R. 34 Planned Growth Area (Alternative 4A) is approximately \$8,296,400. To implement this structural alternative while maintaining a reasonable user rate, a 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., etc.) loan or any combination is necessary. Prior to preliminary design a detailed financial and funding analysis should be undertaken that examines all funding and financing options available. Funding scenarios studied should include (1) the use of grant monies to offset the capital costs of the project; (2) the use of 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, and (4) combinations of funding options.

8.3 PROJECT IMPLEMENTATION SCHEDULE

The Howe Township Municipal Authority does not currently have sufficient staffing and resources to implement the selected structural alternative. HTMA will need to explore options for future operation of sewer facilities including hiring operations staff, sub-contracting operations, etc.

The On-lot Management Ordinance shall be adopted within one year from the date of DEP approval of this Act 537 Plan and implemented at that time as indicated in the table below. The implementation of the selected structural alternative (Alternative 4A) for the S.R. 34 Planned Growth Area including the Juniata Parkway Study Area shall be completed in accordance with the schedule shown below assuming that a favorable inter-municipal agreement with NBMA can be negotiated and funding secured. Without the favorable inter-municipal agreement, development agreements, and favorable funding (public and private) this alternative is not feasible and will not be implemented.

The following activities shall be undertaken to ensure successful implementation of the selected alternatives within the specified timeframes:

Recommendation 1 - On-lot Sewage Management Ordinance Schedule	
Year(s)	Activity
0-1	Adopt On-lot Sewage Management Ordinance
1 to Date of Connection to Public Sewer	Implement On-lot Sewage Management Ordinance

Recommendation 2 - Construction of Public Sewers for S.R. 34 Planned Growth Area (Alternative 4A)	
Year(s)	Activity
0 – 1	Negotiate Inter-municipal Agreement with NBMA Including Reserved Capacity
	Negotiate Development Agreements with Projected Developments for Cost Sharing
1 – 3	Pursue Funding Opportunities for Construction of Alternative 4A Facilities
3 – 5 (1)	Design and Permit Alternative 4A Facilities
6 – 8 (1)	Construct Alternative 2B Facilities
8 – 9 (1)	Complete Connections to Alternative 2B Facilities

Note (1): Without the favorable inter-municipal agreement, development agreements, and favorable funding (public and private) this alternative is not feasible and will not be implemented.

Recommendation 3 – Mandatory Connection Ordinance Schedule	
Years (s)	Activity
0-1	Adopt Mandatory Connection Ordinance