

## PLAN SUMMARY

### Minor Act 537 Plan Update: Lewis Township Special Study Lewis Township, Northumberland County

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#### **Purpose of Study & Proposed Service Area**

Lewis Township (Township), Northumberland County is performing this Act 537 Sewage Facilities Planning Special Study (Study) to revisit regionalization with the Milton Regional Sewer Authority (MRSA). This reassessment was prompted by recent discoveries regarding the condition of the existing wastewater treatment plant (WWTP) tankage, interest in public sewer service shown by neighboring Delaware Township, and a desire to extend sanitary sewer service in the Susquehanna Trail/Route 54 Corridor.

This Study's primary goal will be to evaluate sanitary sewer service alternatives for the existing Township sanitary sewer service area as well as a portion of the Susquehanna Trail/Route 54 Corridor previously identified. All alternatives evaluated will include the connection of the Schell & Koch Road area as determined by the Township's most recent 537 Planning (approved by the Pennsylvania Department of Environmental Protection (DEP) in November 2018). Please note that design of the Schell & Koch Road Project has continued concurrent with performance of this Study.

The Planning Area is generally comprised of the following:

1. The existing Township WWTP service area, including 72 residential customers and the Warrior Run School District's Middle School and High School Campus, currently serving a total of approximately 1,000 students on average. The District intends to expand their campus to include a regional Elementary School, which would increase the average number of students served to approximately 1,600. Projected flows associated with this portion of the Planning Area are approximately 11,860 gallons per day (gpd).
2. The Schell & Koch Road service area expansion as previously planned. This area includes 19 existing residences, currently served by on-lot disposal systems (OLDS). Projected flows associated with this portion of the Planning Area are approximately 2,280 gpd.
3. The Susquehanna Trail service area expansion. This area is comprised of 8 existing residences and commercial businesses currently served by OLDS. These OLDS have been identified to have high rates of malfunction through previous planning efforts and confirmed through a Sewage Disposal Needs Identification performed as part of this study. Projected flows associated with this portion of the Planning Area are approximately 1,600 gpd.

In addition to the campus and service area expansions as described above, the Township intends to plan for additional moderate growth within the expanded service area of five (5) EDU's each year for the next 20 years. Projected flows associated with this growth are approximately 600 gpd per year, for a total of 12,000 gpd at the end of the 20-year planning period.

Projected flows within the Planning Area as described above are approximately 15,740 gpd initially with a total projection of 27,740 through the planning period.

The majority of the Planning Area is currently served by the existing Lewis Township WWTP (NPDES Permit No. PA0111741), which has a permitted hydraulic loading capacity of 26,000 gpd and a permitted organic loading capacity of 124 pounds per day. Based on recent Lewis Township Chapter 94 Annual Wasteload Management Reports, the average daily flow treated by the WWTP is approximately 8,890 gpd. While the average daily flows are well within the WWTP's current permitted capacity, the Township's WWTP Operations Staff (Operations Staff) report inefficiencies in the biological treatment process due to high diurnal loading, presumed to be attributed to the District campus, which results in a depletion of dissolved oxygen. While the plant is currently able to meet permit limits, Operations Staff have indicated that the WWTP will need to be upgraded to address these inefficiencies for long-term viability of the WWTP. Therefore, the Township intends to examine alternatives to provide service to existing customers while accommodating planned service area extensions and growth as described above. These alternatives will include an upgrade to the existing WWTP and regionalization with MRSA.

The purpose of this Study will be to determine the most cost effective and operationally feasible alternative to provide sanitary sewer service to the Planning Area as described above.

### **Recommended Alternatives**

Alternative 2 is recommended based on its ability to provide sanitary sewer service to the Planning Area for the 20-year planning period while minimizing end user rates and ongoing operational costs. Alternative 2 includes regionalization with the Milton Regional Sewer Authority (MRSA) via a sanitary sewer pump station and force main along Susquehanna Trail, 8th St. Drive, and Vincent Avenue. This alternative also includes the connection of 25-61 additional EDU's along the regionalization route in Delaware Township that are not included in analysis for Alternative 1.

Alternative 2 is the more cost effective alternative if capital contributions and grants are obtained to reduce the total loan amount necessary, due to the lower operation and maintenance cost compared to Alternative 1. The Township has identified multiple potential up-front revenue sources (grants and local contributions) that have already been secured or are being actively pursued.

### **Cost of Implementation**

The estimated project cost for Alternative 2 is \$2,175,000. The estimated present worth over a 20 year time frame of this alternative is \$2,540,000. In addition to these costs, the Susquehanna Trail Extension was also added into the implementation cost for each alternative. The estimated project cost for the Susquehanna Trail Extension is \$390,000, with a 20-year present worth including O&M of \$475,000. Based on preliminary analysis based on a range of estimated grant and local contributions, conservative estimated user rates are projected at between \$59 and \$129 per EDU per month.

### **Municipal Commitments**

A memorandum of understanding (MOU) between Lewis Township, Delaware Township, and the MRSA with regard to regionalization was negotiated and executed by all parties in June 2020. This MOU provides for capacity within the MRSA system to serve the Planning Area, the eventual operation and ownership by MRSA, and the addition of representation for Lewis Township on the MRSA board. Please refer to Section X for a copy of the executed MOU.

Additionally, the Warrior Run School District has agreed to commit up to a maximum of \$770,000 towards the cost of the project as a capital contribution, to assist with repayment of a portion of Lewis Township's existing PENNVEST loan; a requirement that has been communicated by PENNVEST as a contingency of a funding offer for the recommended alternative.

### **Implementation Schedule**

Assuming receipt of planning approval in Fall/Winter of 2020, the following implementation schedule is anticipated:

The Township anticipates receiving necessary permits by August 2021.

Funding applications for CFA Small Water & Sewer Facilities and H2O PA grants have already been submitted in December 2019, with anticipated award notifications in Fall of 2020. A PENNVEST application will be submitted in the Summer of 2021, once permit approval is finalized.

Final design of all facilities is anticipated to be completed in Fall 2021/Winter 2022, with bidding to follow and construction beginning in Spring 2022. At this time, the construction timeline is expected to be approximately 12 months, with substantial completion (new facilities projected to be operational) by Winter 2023.