



Long Hill Township

Sanitary Utility Evaluation February 2017



Background

- **Remington & Vernick was authorized to study the utility system to establish the condition of the existing utility system and preliminary value for consideration of a potential sale.**
- **Objectives of Study:**
 - Evaluate Existing Sanitary Infrastructure / Assets
 - Develop a 20 Year Capital Improvement Plan (CIP) including budgetary costs
 - Develop the current value for the Utility System
- **Approach:**
 - Inspected all utility facilities – mechanical, electrical & structural
 - Reviewed historic operations and maintenance records
 - Interviewed long time utility personnel
 - Reviewed utility financial records including historic investment in system

Objective #1 - Utility System Evaluation

- **Existing Sanitary Utility Infrastructure:**

- Approximately 88% of residential properties are connected to the sanitary system while 12% of residential properties are currently on septic.
- Approximately **54** miles of gravity sanitary main, ranging in size from 8” to 14” diameter.
- Approximately **3** miles of force sanitary main, ranging is size from 2” to 8” diameter.
- Most of the main was constructed in the 1930-1940 during the original plant construction and in the 1970’s leading to the WWTP expansion.
- The system is comprised mostly of ACP & VCP; these types of materials are prone to cracking and joint separation.
- There are eight (8) active pump stations.
- The water treatment plant has undergone expansions / upgrades in 1930, 1975, 1984, 1991, & 2014.
- The plant has a current design capacity of 0.9 MGD however the plant receives / treats flows in excess of the capacity.

Objective #1 - Utility System Evaluation

- **Existing Sanitary Utility Infrastructure- continued:**
 - There is currently a sewer ban with connections reviewed on a case by case basis.
 - The sewer ban restricts and/or prevents development.



Utility System Evaluation

- **Overall Observations :**

- The Township is at a cross road in terms of addressing the treatment capacities at the WWTP.
- The Township has conducted an I&I study that identified those areas with the greatest inflow & infiltration.
- The excessive I&I stresses the pump stations and the dry / wet weather fluctuations make the operation of the WWTP difficult.
- Some of the pump stations require significant upgrades while all pump stations should begin to incorporate the routine upgrades of the mechanical equipment.
- Despite recent lining projects for the gravity main and WWTP improvements, the utility is aging.
- Lack of significant sanitary main replacements or rehabilitation relative to the age of the system.

Objective #2 – 20 Year Capital Improvement Plan

- Developed as a planning tool to begin the necessary improvements to the system for sustainable operation.
- To be utilized to establish annual budgetary requirements for the Township Utility. Also allows the ability to review the financial future of the utility system and impact to rate payers.
- Incorporates improvements to address deficiencies in the system.
- Maintains routine inspection and maintenance improvements of critical infrastructure elements (i.e. pump replacements,).
- Plans for the systematic and prioritized sanitary main. replacements / rehabilitation to eliminate I&I but also address aging infrastructure.

20 Year Capital Improvement Plan

- Recommended review on annual basis and incorporation of additional sanitary piping, as feasible due to budgetary considerations.
- Capital Improvements Plan *does not* incorporate Operations Budget or Debt Service.
- Capital Improvement Plan *does not* incorporate construction of infrastructure for existing septic systems.
- Capital Improvements Plan results in:
 - **Annual Pump Station / WWTP Costs= \$547,500**
 - **Annual Sanitary Conveyance Improvement Costs = \$813,000**
 - Average Annual Budgetary Considerations = \$1,412,400**

Objective #3 - System Valuation

- As part of this project, RVE was requested to complete a valuation of the system. This analysis puts a current worth on the system.
- The system was analyzed using the BPU accepted valuation methodology.
- **Cost Approach - Original Cost Less Depreciation**
- Each element of the infrastructure was incorporated into the valuation and depreciation of the infrastructure was considered.
- Basis for the private utility to recover their purchase price.
- Does *not* mean that a private utility would not pay more.
- Using the Original Cost Less Depreciation analysis, the estimated value of the sanitary system is **\$24.9 million.**

Questions and Answers



**REMINGTON
& VERNICK
ENGINEERS
AND AFFILIATES**