

1.1 INTRODUCTION

The Pennsylvania Sewage Facilities Act requires that every municipality within the Commonwealth develop and maintain an up-to-date sewage facilities plan. The Shinglehouse Borough, Potter County, Pennsylvania, authorized the preparation of this report to serve as its Official Sewage Facilities Plan. The planning area for this Act 537 Plan will include all of Shinglehouse Borough. This plan is being implemented for the purposes of evaluating options for replacing and/or upgrading the existing 0.16 MGD sewage treatment plant components to address aging technology.

1.2 PREVIOUS WASTEWATER PLANNING

Shinglehouse Borough (Borough) provides sanitary sewer service to the residents and businesses in the Borough as well as both the Oswayo Valley Elementary School and Jr. & Sr. High School. Approximately 28 developed properties within the Borough are outside of the Borough's sewer service area and are currently served by On-Lot Disposal Systems (OLDS). Shinglehouse Borough does not have an Official Act 537 Plan, Zoning Ordinance, or Comprehensive Plan. It shall be noted that Annual Average Daily Flows (ADF) are consistently less than half of the permitted capacity at the wastewater treatment plant (WWTP). Minimal growth within the planning area is projected by the Borough at this time.

1.2.1 Borough Code – Sewers and Sewage Disposal

In accordance with Chapter 18, Part 3 of the Shinglehouse Borough Code (Borough Code), each and every owner of improved property, whereon any part of the principal building, or other structure from which sewage or industrial waste is discharged, is within 400 feet from and accessible to any sewer which is ready to receive sewage through a service line installed by the Shinglehouse Borough shall upon receipt of written notice from the Borough Council or their agents, be required to connect such premises with the Borough's sewer system without delay. In addition, the Borough Code prohibits types of sewage or industrial waste outlined in Chapter 18, Part 6 from entering the Borough's sewer system.

1.2.2 Pennsylvania Department of Health – Sanitary Water Board

In 1923, the Pennsylvania General Assembly enacted legislation that created, within the Department of Health, a Sanitary Water Board whose function was to balance economic growth and improved water quality. The board created a stream classification system that designated streams into three categories for municipal and industrial users: (1) streams that were relatively clean and pure; (2) streams in which pollution existed but could be controlled; and (3) streams that were so polluted they could not be used as public water supplies or for fishing and recreational purposes without treatment and, therefore, could continue to be used for the discharge of untreated wastes. By the 1960's, the Sanitary Water Board began ordering the construction of WWTPs for communities in the region, including Shinglehouse Borough. The existing sewerage planning for the Borough was developed prior to the construction of the WWTP in 1966. This sewerage planning, the Potter County Comprehensive Plan, and the Wastewater Treatment Plant Evaluation Study discussed below serve as the foundation for establishing the future sewer and water planning needs of the Borough.

1.2.3 Wastewater Treatment Plant Evaluation Study

The Borough's existing WWTP, constructed in 1966, has reached the end of its useful life and is in need of replacement of a majority of its components. In an effort to address the aged technology, a Wastewater Treatment Plant Evaluation Study (WWTP Study) was performed in October 2016 by Herbert, Rowland & Grubic, Inc. (HRG) to evaluate the existing treatment process facilities and provide a recommendation for improvements based on existing record drawings, site visits, personal communications with Borough Staff, equipment manufacturers, and other documents provided by the Borough.

HRG completed the WWTP Study using the literature values and design parameters outlined in the Pennsylvania Department of Environmental Protection's (DEP) Domestic Wastewater Facilities Manual and Environmental Protection Agency (EPA) Process Design Manual for Sludge Treatment and Disposal to determine performance-limiting factors of treatment unit processes. Historical data on the performance of the treatment plant was also reviewed as well as field inspections of the facilities.

The following recommendations were identified in the WWTP Study, a copy of which has been included in Appendix E.

1. Rehabilitation of the chlorine contact tank and miscellaneous headworks improvements.
2. Installation of the vertical fine screen and rehabilitation of the final clarifier.
3. Installation of the oxidation basin and grit system, supervisor controls, and demolition of the existing equipment.

1.2.4 Potter County Comprehensive Plan

The Potter County Comprehensive Plan was created in 2005 by the Potter County Planning Commission to preserve and enhance the quality of life for current and future residents of Potter County. At the time of its creation, it was recognized that the Borough water system was adequate to accommodate projected growth and that the Borough's public sewer system was operating at 116% of its permitted capacity. Since 2005, the Borough's WWTP has had issues meeting its permitted effluent limits.

A major cornerstone of the County's comprehensive plan is its intention to set the stage for a well-integrated and balanced planning effort for decades to come within Potter County. The County has made an effort to make sure that their comprehensive plan serves as the backbone for any and all additional planning efforts. Projected upgrades to the Borough WWTP are designed to comply with current permit limits and are consistent with County planning efforts in an effort to provide continued, reliable sewer service and treatment to the areas residents.