
ACT 537 SEWAGE FACILITIES PLAN UPDATE

FREQUENTLY ASKED QUESTIONS



Why did WBCA initiate an Act 537 Study?

The purpose of the DEP sewage facilities program is to implement the Pennsylvania Sewage Facilities Act (**Act 537**) in order to help address existing sewage disposal needs, and to help prevent future problems through the proper planning, permitting, and design of all types of sewage facilities. It is a municipal responsibility to maintain an accurate and current sewage facilities plan. The condition of the WBCA system warranted a study to plan for future capital projects to maintain adequate service to the WBCA member municipalities. Prior to initiating the study, WBCA applied for a grant and received \$90,000 in grant funding for the preparation of the study and flow monitoring program.

Why do we need a new Water Pollution Control Plant (WPCP)?

The majority of the existing WPCP was built in 1978 and upgraded in 1999, but still utilizes some components from the 1939 WPCP and 1959 WPCP. Aging facilities increase the risk of noncompliant wastewater discharges, which harms aquatic life in the receiving stream, and threatens public drinking water sources. Original infrastructure in Harmony Borough and Zelienople Borough dates back as far as the 1920s, with many house laterals having been installed at the same time. This allows for a significant amount of rainwater (inflow and infiltration – I&I) into the sewers which overloads the existing WPCP. When the capacity of the WPCP is exceeded DEP will mandate a corrective action plan to remedy the overload. WBCA is being proactive with improvements before the DEP must step in. This also positions the Authority to accept future growth and development which reduces rate impacts to our entire customer base.

Why can't you repair the damaged sewers?

Replacement and repair of gravity sewers requires a lot of time and money. Private lateral repairs/replacements would be at the expense of the

property owner and could cost as much as \$30,000 per owner. A project to reconstruct the entirety of the Zelienople and Harmony Borough systems to eliminate I&I could cost as much as \$110 million dollars! It is a much more efficient use of funds to build a facility to handle these flows than it is to replace all the sewers and mandate customers to replace laterals at their own cost. Additionally, replacement of these sewers will not address the aging infrastructure at the WPCP.

Why can't you rehabilitate the existing WPCP?

With the decision made that the WPCP would be upgraded to treat the necessary flow (see "***Why can't you repair the damaged sewers?***" above) the WBCA investigated several technical approaches to increasing the WPCP's capacity and modernizing the facility. Through extensive work, meetings, and evaluations, it was determined that the most fiscally responsible option is to construct a new WPCP while maintaining existing infrastructure where possible. This decision was based on many factors including (1) The WPCP has several unit processes in fair to poor condition, (2) the repair of these processes will not address peak flow issues or future treatment capacity, (3) repair and construction while keeping the existing WPCP online, (4) lack of available space near each unit process, and (5) constructability with consideration towards existing above ground and buried structures and infrastructures.

What are the critical success factors of the WPCP Project?

The chosen WPCP alternative has two phases. Phase I focuses on addressing existing peak flows and will sufficiently sustain 20 years of projected growth. Phase II will expand on the facilities constructed in Phase I to accommodate growth for a 30-year period or more while meeting our Environmental Stewardship Goals. The Authority's major goals in this project are to increase energy efficiency,

minimize or even eliminate the need for chemicals and design a WPCP that will permit for the eventual Phase II expansion without adding unnecessary cost today. This was not considered in the 1999 expansion which has significantly limited the ability to treat the existing peak flows and limited the opportunities for expansion.

What do you mean Environmental Stewardship Goals?

As wastewater professionals and a municipal WPCP our primary function is to provide a clean, high quality effluent discharge into the Connoquenessing Creek and to protect our waterways. Connoquenessing is a surface water source used here and downstream for drinking water, irrigation water, power generation, public supply, industry, mining and recreation. Our two main goals are (1) to reduce and eliminate the use of detrimental chemicals in our treatment process, thereby reducing and eliminating their discharge into our waterways and (2) to provide a superior quality effluent discharge into our waterways. Existing peak flows result in discharges that are minimally treated.

When and how long will construction be?

Construction of the Harmony Pump Station Infrastructure Improvements Plan (“HPSIIP”) will precede construction of the WPCP (est. winter of 2023). Construction of HPSIIP is projected to last two years with construction of the WPCP lasting three years. Both facilities life expectancies are projected to exceed 30 years with minor rehabilitation.

How much will it cost and who is paying for it?

Design, permitting and construction of HPSIIP is estimated at \$10.6 million while the new WPCP is estimated at \$64 million. Tap-in fees collected from past developments have assisted in capital improvements for several years and has helped eliminate debt incurred from historical capital improvement projects. Future tap-in fees will also be diverted to help fund the two projects however, loans will still be required. Sewer rates will increase in order to pay for the proposed alternatives however, the Authority is seeking PENNVEST and Butler County Infrastructure Bank funding for lower interest rates and grant opportunities.

My sewer bill just increased! How much more?

Depending on funding opportunities and actual construction costs, the sewer charge is projected to increase \$0.50 per billing unit for the next 4 years resulting in a \$2.00 per billing unit increase by the year 2024. It is projected that rates will not need to be raised again until 2030. Money accumulated from this increase will be used to pay for the debt service associated with the project.

Why are Zelienople and Harmony Borough Customers paying for Lancaster and Jackson Townships projected growth?

Although one of the drivers for the projects is projected development, the primary goal is to address existing peak flows, caused by inflow and infiltration, mainly caused by Harmony Borough and Zelienople Borough infrastructure, and provide better infrastructure to all customers as aging facilities continuously increase the risk of noncompliant wastewater discharges. Both projects involve increasing pipe capacities in Zelienople and Harmony Borough. Gravity lines in both Boroughs are either (1) currently undersized & composed of brittle pipe or (2) were constructed over 100 years ago. Over the past several years, growth in Jackson and Lancaster Townships have helped eliminate the debt incurred from historical upgrades and fund capital improvement projects such as the Herman Pump Station Replacement Project located in Zelienople Borough. Additionally, new development infrastructure is superior to existing infrastructure and does not contribute to I&I.

Please see the graphs at the end of this FAQ showing results of the flow monitoring study. These graphs are a great visual representation of the I&I flow coming into the Authority’s sewer system.

Why should existing customers pay for development?

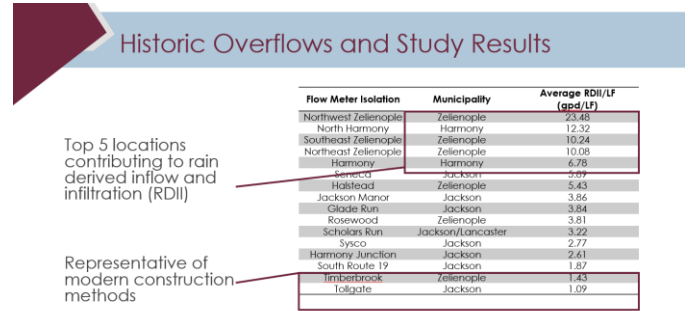
Quite the opposite is true in fact. Between the years 2005 and 2017 tap fees received from new development subsidized the operating account in the amount of \$3.6 million dollars. Starting in 2018 the Authority restructured rates so that sewer use charges would support the operational costs of the Authority.

Tap fees from new development were planned to be used to pay down debt and support future capital projects. At the conclusion of 2020 Authority debt has been eliminated, and development tap fees will be utilized to pay for required capital projects. New customers connected due to development will support the operational expenses incurred by the Authority.

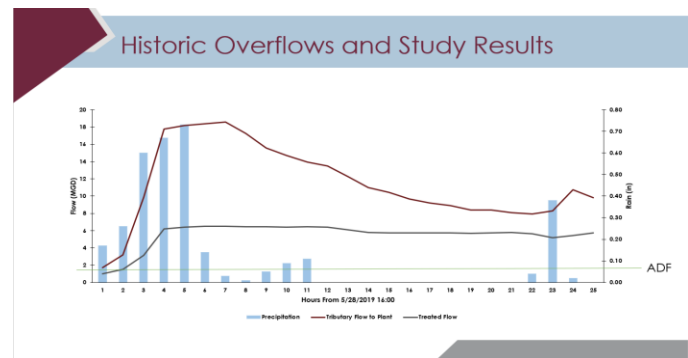
Ongoing authority infrastructure projects

The Authority continues to invest into the existing infrastructure to ensure future viability of the system. Past projects include:

- 2017-2020 – Televising and Cured in Place Lining of sanitary structures with known I&I in the following roadways: South Main St, Spring St/E Spring St, Jefferson St, Park Access Rd, Dominican Way, Grandview Ave, Bluff St, Center St, Division St, Mercer St, E Beaver St, Old Mercer St, High St, Maria Ln, Culvert St, and Maria Ln
- Other major projects include rehabilitation and replacement of sanitary sewers on Northview Drive, State Route 19, and West New Castle St
- Herman Pump Station- this current project includes relocation of the existing (original) Zelenople Borough pump station. This station is undersized and handles a large amount of I&I from the Rosewood plan and Halstead Blvd
- Harmony Pump Station Infrastructure Improvements Plan (“HPSIIP”) this future project is in the design phase currently. The Harmony Pump station is the location of the original Harmony Borough WPCP. This station handles flow from almost all of Harmony Borough and facilities to the North and East. This is the Authority’s largest station. The HPSIIP project includes major renovations to the station, installation of a second wet weather force main, upgrades to major interceptors leading to the station, and upgrades to discharge interceptors



Data illustrated in this graph is the result of a flow study with data collected during a May 2020 storm event and highlights the locations of high I&I contributors by location.



Data illustrated in this graph is the result of a flow study with data collected during a May 2020 storm event and highlights the WPCP average daily flow (static green line) versus the tributary flow to plant in millions of gallons per day (red line)

Visit our Website for More Info

As these projects progress we will provide further information and periodic updates on the Authority Website at:

<https://www.wbcasewer.com/projects>