

# Waste Water Treatment Plant 101

## The Facts

- Design capacity of roughly one million gallons of sewage a day.
- The water/sewer comes from approximately 2600 households
- The plant technology is a rotating biological contactor (RBC)

The Waste Water Treatment Plant is now over 50 years old. The plant was originally constructed in 1972 and recieved a technological upgrade in 1992. Since then, minor modifications have been made.

Currently, the plant is undergoing some modifications. The plant is swapping its chlorination process for a safe and fish-friendly alternative, an ultraviolet disinfection process. This will provide greater protection for the Wawayanda Creek and its habitat.

Recently, an issue of strong odor was reported to be a nuisance. The village is using air-scrubbers to manage this via charcoal filters. Additionally, the plant is testing various chemicals to develop an enhanced solution.



# The Situation

**10-15**  
million dollars in  
costs

**3 to 5**  
years to design,  
develop and  
construct

**20+**  
years the plant  
should last

## Aging Concerns

The plant is over 50 years old. The Village of Warwick requested an evaluation in 2017 by Barton and Loguidice (B&L), to understand the conditions that exist within the plant.

It was found that the plant is in severe condition, needing immediate attention. It was determined that the facilities is outdated. Electrical systems are failing and corrosion is abundant. The fifteen RBC units are suffering frequent drive, shaft, and bearing failures requiring maintenance that is becoming costly. Because of its outdated equipment, the site is operated manually and has no computerization such as Supervisory Control and Data Acquisition system (SCADA) which is currently standard in treatment plant operations. The list is long for repairs and upgrades that need to be done.

Barton and Loguidice (B&L) presented the Village with a budget plan depending on various solutions that could be enacted. In all, the cost could range anywhere from 10 to 15 million dollars. With project development, design and construction, the process could take as little as 3 years to as long as 5 years to complete. Once complete, the upgrades is expected to last at least 20 years or more.



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A variety of suggestions were made, but the outcome remains the same. It is an inevitable undertaking that will cost money.

# How is this going to be paid?

## - Grants

The Village of Warwick is pursuing a variety of loans and financial assistance - obtaining grants through the Environment Facilities Corporation (EFC) or Department of Environmental Conservation (DEC).

## - Taxpayers

The residents of the Village of Warwick will pay a portion of the cost and should expect to see a raise in village taxes and fees. The cost will be distributed among the approximately 2600 households.

The Village of Warwick is exploring all options to minimize additional costs to local residents

# The Future

## **The quality of our infrastructure directly relates to the quality of our lives.**

Clearly, there is work to be done. The WWTP is aging to a point where action is necessary. The Village of Warwick has partnered with Barton and Loguidice (B&L) to evaluate and analyze the extent of the deterioration. Consequently, B&L has derived several solutions based on various technologies available which ranges from upgrade and renovation to complete overhaul and rebuilding. They include revitalizing the RBC technology, or switching to newer technologies such as Sequencing Batch Reactor (SBR) or Membrane Bioreactor (MBR). There will be high costs no matter what option is chosen.

We have a team of dedicated individuals working hard to make this process effective and affordable. Since the need is unavoidable, the priority is mitigating its financial impact and keeping it cost-effective for the residents who rely on the plant. The Village Board and B&L have been diligently working on finding ways to lower the costs of the project through funding and grants. The project is expected to undergo design, development and construction phases as soon as 2019.

The Waste Water Treatment Plant is an integral part of the Village infrastructure. The improvements we will be working are meaningful and will impact our community for years to come. This is an investment in the future of our Queen Village.