

Ohio

Water and Environmental Programs | Water & Waste Disposal Loan and Grant Program

Wastewater Treatment Gets Upgrade in Rural Ohio Town



(L-R) Plant Operators Caleb Faulkner and Kurt Greifenkamp, and Clermont County Water Resources Department Assistant Sanitary Engineer Chris Rowland at the new single batch reactor wastewater treatment facility in Newtonsville, Ohio. USDA Photo.

Thanks to the perseverance of community leaders and property owners, the Board of Clermont County (OH) Commissioners opened a new wastewater treatment facility in the former Village of Newtonsville, which is now part of Wayne Township.

More than a decade ago it became clear individual septic systems used by nearly 170 properties to treat wastewater in this rural community was not sustainable.

“There was a great deal of on-site septic systems failing, and because of the size and configuration of the lots, replacing them was not an option,”

said Chris Rowland, assistant sanitary engineer for the Clermont County Water Resources Department.

Finding a suitable replacement started when the individual septic systems were “flagged” by the local health district. But county commissioners could not start the process to research and evaluate alternatives until residents got involved.

So, in 2013 residents petitioned the county commissioners to provide public sanitary sewer service. This allowed for the addition of new wastewater collection system and treatment plant projects to the Water Resource Department’s five-year capital improvement plan and directed funds toward research and design.

When the Water Resources Department started the process, engineering design contracts included a task to identify ways to fund a potential project. According to Chris, they considered multiple sources of funding from several agencies and settled on USDA Rural Development’s Water and Waste Disposal Loan and Grant program because it was the best option available and included both grants and loans.

Village of Newtonsville Wastewater Plant – Water & Waste Disposal Loan and Grant Program

“The grants and interest rates on the loans made the funding very affordable,” said Chris.

With funding in hand, construction began in early 2022 and was completed in late 2023 for the collection system and in early 2024 for the wastewater treatment plant. The Newtonsville Area Wastewater Treatment Plant’s sequencing single batch reactor (SBR) is now the newest of nine wastewater treatment plants operated by the Clermont County Water Resources Department.



Newtonsville’s new wastewater treatment facility occupies a small footprint and features the single batch reactor (SBR) on the left, and disinfecting building. USDA Photo.

Designed to manage low to intermittent flows, the SBR facility is ideally suited to manage the average daily inflow of nearly 57,000 gallons of wastewater in the village.

Once it flows into the facility, wastewater is treated in “batches” including aeration, clarification, ultraviolet (UV) disinfection, and finally effluent discharge into a local creek.

“The benefit of this treatment facility is that it requires a smaller footprint, so a limited area is needed,” said Chris. “It’s a quiet, low-key facility with the entire process taking place in two structures – the SBR and filtration building – which also helps reduce odors as well.”

It is also more reliable because of the safeguards built in, reducing maintenance and operating costs.

“The system has multiple “fail-safes” built in to alert operators of potential issues before they become actual issues,” said plant operator Caleb Faulkner. “From beginning to end we have alarms to ensure that there are no issues.”

So now, thanks to the new treatment process, wastewater meets all Ohio Environmental Protection Agency (EPA) standards for effluent discharge, protecting the health of nearby residents, waterways, and wildlife in the Little Miami Watershed.

“It definitely addresses the failed on-site septic system issues and improves quality of life for our residents and overall quality of the environment,” said Chris.

Obligation: \$11,218,000 loans and grants

Obligation date: April 1, 2016, and May 7, 2020

Congressional: U.S. Rep. Greg Landsman (OH-01); U.S. Senators Sherrod Brown and J.D. Vance

Impact: Improved health, welfare, and safety for 170 households in the plant’s service area.