

Pipelines

SPRING 2022



A Community Without Adequate Water Infrastructure Is No Community at All: **The History of GCSED!**

They say it's hard to know where you're going if you don't know where you've been. This is the case with many situations in life including regional water and sewer districts like Greene County Sanitary Engineering Department (GCSED). GCSED has been and continues to be in constant evolution. With a number of different arrangements and service offerings spread out all across this vast county, GCSED focuses on the future while keeping the past close at hand. GCSED is a relatively "young" system when compared to other regional districts, with most of the community developments occurring over the past 40 to 50 years. The following piece highlights the history and evolution of GCSED.

*"When the well's dry,
we know the worth of water."*

– Benjamin Franklin

GCSED's story traces back to the late 1950s when the local Health Department issued an Order to the Greene County Commissioners aimed at correcting malfunctioning septic tanks throughout Greene County. The Commissioners consolidated various sewer districts into the Greater Greene Little

Miami Sewer District in 1960 and GCSED was consequently formed in 1964. Sewers were installed throughout Beavercreek and the Beavercreek Water Resource Recovery Facility (WRRF) was brought online in 1965. Discussions on a central water system began in the mid-1960s. These discussions continued across the next decade or so as cost estimates were gathered and public debates commenced.

The 1970s brought many new developments that included "plat water systems," which were eventually turned over to GCSED to manage and operate. At one point, there were six separate water systems serving select areas, one of which is still in operation today on Shakertown Road (Beavercreek). Throughout the decade, more and more residents experienced water problems with wells going dry or failing. In 1977, the Commissioners directed GCSED to build a regional water system in Beavercreek Township for those residents that "needed and wanted it." Segments of the public voiced concerns over household rate impacts and the promotion of regional growth that comes with public water access. In 1979, the Northwest Regional Water Treatment Plant

(WTP) came online and was designed for a limited population and no consideration of irrigation capacity.

During the next two decades, the region grew rapidly, including the desire for irrigation capacity, requiring a series of expansions and upgrades at the WTP. The water system continued to grow as well which presented challenges to deliver adequate flow and volume to longer reaches across the system. In the 2000s, the search for additional source water (wells) became a priority after suffering water shortages in the summer months. Irrigation bans were put into place in 2007 due to a lack of capacity. Additional wells and plant improvements were brought online in 2008 that alleviated the immediate system capacity concerns.

Other major milestones at GCSED included the onboarding of the Sugarcreek WRRF (near Spring Valley) in 1976 that serves Sugarcreek Township, the City of Bellbrook, and areas in Montgomery County; the Clifton WRRF start-up in 1992; the incorporation of the Village of Cedarville water, sewer, and treatment facilities

Kudos & Congrats to Environmental Services!

Greene County Environmental Services (GCES) was awarded the **2021 Impact Award by the Little Miami Watershed Network**, GCES has been a great organizational partner since its first clean-up in 2010. A big success, GCES has received all of the 1,007 tires that have been removed

from the Little Miami River and secured services to recycle the tires. The award stated: "Environmental Services' willingness to accept the tires makes Greene County stand out from other efforts across the State!" Special thanks to Hope Taft and Dana Doll (pictured) for their individual efforts!



Cedarville Water Resource Reclamation Facility

The Cedarville Water Resource Reclamation Facility serves the residents of Cedarville Township, the Village of Cedarville, as well as the students and staff of Cedarville University. The wastewater



recovery facility is part of GCSED's Beavercreek Division, and designed to treat 560,000 gallons per day of wastewater collected from customers via the sewer collection system. A large portion of this flow into the facility is attributed to the student population of Cedarville University, which accounts for roughly 44 percent of the area's total population when school is in session. The facility uses a multi-step process to remove harmful contaminants from the incoming wastewater

to ensure the facility meets its discharge permit requirements. The staff is comprised of an Operations Manager, two Ohio EPA Certified Wastewater Treatment Plant Operators, and a Maintenance Technician with a total of over 50 years of experience in the water industry. This team works hard to protect the environment and public health by performing their tasks diligently and efficiently. In 2021 the Cedarville WRRF treated 163 million gallons of wastewater, achieving a 95% or higher removal rate on all major parameters listed in the facility's discharge permit, continuing many years of plant operations with no permit violations or harmful releases to Massie Creek.

Scientific Mastermind of GCSED

Delivering safe drinking water to our customers and discharging clean water into the environment are our top priorities. These complex processes are closely monitored by Greene County Sanitary Engineering Laboratory and the Lab Manager Lori Kyle, who has over 30 years of environmental laboratory experience. She received her degree in Criminal Justice with a minor in Forestry and Wildlife Management in Virginia. Her professional background is very diverse and includes microbiology and hydrology research at USDA and wastewater and drinking water chemistry at REI Consultants. Ms. Kyle is currently an Ohio EPA certified Laboratory Technician and has a Wastewater Operator Class 3 license as well as a Class 2 Laboratory Analyst license. She also makes sure all lab technicians are certified.



Lori Kyle

meet Ohio EPA's permit parameters. The Laboratory Division houses three active Labs: general chemistry, bacteriological, and an operational Lab. The Lab also provides water sampling services to the public. Ms. Kyle has developed a smooth workflow between all GCSED divisions—ensuring equipment works properly; requesting timely troubleshooting, if necessary; coordinating with other management for their Lab needs; and ensuring all OEPA regulatory standards are met. She organizes Greene County meetings and is an active chair for the local Southwest Ohio Water Environment Association (SWOWEA), which is dedicated to the preservation and enhancement of water resources. In the future, she looks forward to expanding some of the Lab functions, updating equipment, and drawing public interest in Lab Operations. Ms. Kyle, we are thankful for your service and incredible expertise you have brought to our Department!

Ms. Kyle says that a typical day in the Lab is very structured. Several daily samples have to be analyzed to make sure they

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