

Anaerobic Digestion Facility

Project Overview

MSD is designing an anaerobic digestion facility at the Little Miami Wastewater Treatment Plant in the East End/Columbia-Tusculum neighborhoods.

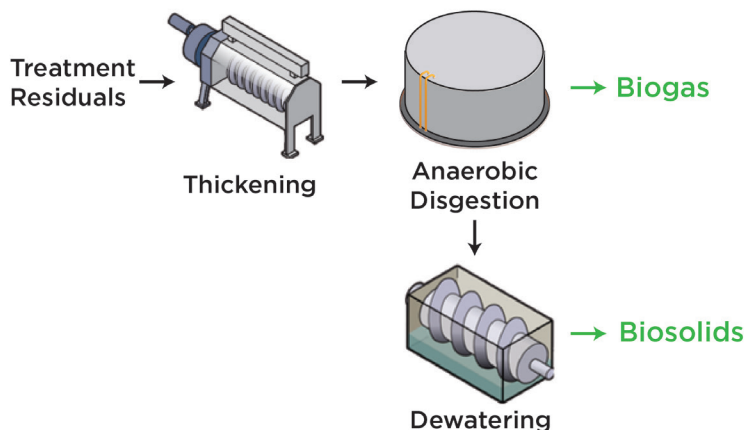
The facility will process waste solids from the Little Miami, Polk Run, and Sycamore Creek treatment plants on the east side of Hamilton County. These solids are currently being landfilled.



Artist Rendering

What is Anaerobic Digestion?

Anaerobic digestion is a biological treatment process for solids. Bacteria break down the solids - in the absence of oxygen - into biogas and biosolids. The process destroys pathogens and reduces the volume of the solids.



Project Location

Little Miami WWTP

**225 Wilmer Ave,
Cincinnati, OH 45226**

The Little Miami plant serves customers in much of eastern Hamilton County. As MSD's first major treatment facility, Little Miami WWTP has been in operation since 1953 and treats about 27 million gallons a day.

Project Benefits

- **Diverts Waste from Landfill for Beneficial Reuse:** MSD is evaluating the most economical and environmentally friendly ways to reuse the biosolids (e.g., soil amendments and fertilizers)
- **Reuses Biogas as Energy**
Source: Biogas, which is primarily methane, is produced by anaerobic digestion. It will be reused onsite as a renewable energy source to run other plant operations. This will reduce our carbon footprint and reliance on the grid and improve energy efficiency
- **Improves Plant Operations:** New solids handling and processing facilities at Little Miami will help optimize operations and maintenance and provide flexibility for the future.
- **Reduces Truck Traffic:** Fewer trucks are needed to haul away biosolids, due to 30-45% reduction in solids volume
- **Reduces Odors:** New odor controls will be installed on solids handling processes to minimize/eliminate odors
- **Save Money:** Since the project involves renewable energy generation (biogas), MSD is potentially eligible for an Inflation Reduction Act reimbursement of up to \$50 million in project costs.



Green Cincinnati Plan
2023

Project Status

Here's the current project status:

- In December 2022, MSD awarded a progressive design-build project to Jacobs Project Management Company to design and construct the anaerobic digestion facility
- Design kicked off in January 2023
- Construction is anticipated to start in 2024 and run through 2028
- Construction estimate is \$150 million; total project costs are estimated at \$170 million (including planning and design)

Expanded Plant Footprint

- MSD will expand the footprint of the plant to the north/northwest by about 7 acres (City property) and will leave the maximum buffer zone possible when removing trees
- Levee around the plant will be expanded to protect the extension
- The existing entrance drive off Kellogg Avenue may need to be relocated



Impact On Ohio River Trail

- A portion of the Ohio River Trail runs east of the plant
- The new facilities will not obstruct the trail; the plant grounds and trail will be separated by 25 feet at a minimum
- MSD is working closely with the City's Department of Transportation & Engineering (DOTE), who maintains the trail MSD is committed to minimizing impacts to trail users



For More Info

513.244.1300

MSD.Communications@
cincinnati-oh.gov

msdgc.org/digester

