

## **About the Lucas County Maumee River Waste Water Treatment Plant:**

In June 1970, a contract was signed by the City of Maumee, Lucas County, and the Ohio Water Development Authority to finance, construct, and operate a regional wastewater treatment facility to service Maumee, Waterville, Holland, and other limited portions of unincorporated Lucas County. Construction was started on the new wastewater treatment plant in March 1971. The Maumee River Wastewater Treatment Plant (MRWWTP) was placed into service in early 1973 as a five MGD activated sludge treatment plant with a hydraulic capacity of 12.5 MGD. The Lucas County Waste Water Treatment Plant is located in Waterville, OH and operates 24 hours per day. This facility also generates electricity through co-generation.

In 2003-2004, the Maumee River WWTP was expanded again to increase the design / peak capacity by 7.5/17.3 MGD (Plant total is now 22.0/47.3 MGD). These improvements were constructed as a totally separate liquid treatment train called the West Plant. The former Plant B is now called the East Plant. The West Plant treatment includes influent screening and grit removal for preliminary treatment, a primary clarifier, chemical addition for phosphorus removal, two two-pass aeration basins for activated sludge treatment, two final clarifiers, and an ultraviolet disinfection system. The new West Plant was constructed with the future capability to be expanded to a design / peak capacity of 15.0/34.5 MGD.

In addition to the construction of the new West Plant, the County also made several improvements to the East Plant, the Anaerobic Digesters, Sludge Storage Facilities, and the Administration Building. The improvements to the East Plant included replacing the old centrifugal blowers with new, energy-efficient single-vane centrifugal blowers; replacing the coarse bubble diffusers in the aeration tanks with fine bubble diffusers; replacing the old chlorination / de-chlorination system with an Ultraviolet Disinfection system; and, installing bio-scrubbers for odor control at the aerated grit chamber and raw sewage pumping station.

The other changes to the MRWWTP included increasing the Anaerobic Digester gas line sizes, adding an additional dewatered sludge storage pad, and adding new offices, conference rooms, and storage space in the Administration Building

In 2010, the MRWWTP included improvements with the selection, purchase, and installation of a new centrifuge for dewatering digested sludge. Lucas County received financing and grants for the installation of the new dewatering centrifuge, and completed the project in 2010. The installation of the new centrifuge was adjacent to the belt filter press, where it was used with a truck loading conveyor. The belt filter press is being retained as backup dewatering equipment in the event the centrifuge is out of operation for service or repair.

The long range plan for the facility is to purchase a second centrifuge and construct a new dewatering building adjacent to the sludge storage pads. The wastewater flows for the Lucas County Sewer Service Area are projected to be met by the facility's most recent 7.5 MGD plant expansion through the year in 2020.

