

Project Description
Village of Granville
Wastewater Treatment Plant (Phase 2)

The Village of Granville (Village) completed an upgrade to its wastewater treatment plant (WWTP) in September of 2005 and its purpose was to increase flow capacity and improve the removal of phosphorus and ammonia. In an effort to reduce the cost of the first plant upgrade, the New York State Department of Environmental Conservation (NYSDEC) permitted the Village to only construct a portion of the phosphorous removal upgrade which included two additional clarifiers and a chemical addition system. An understanding was reached with NYSDEC that after the conclusion of the upgrade project the Village shall:

1. Monitor the effluent phosphorus concentrations from the WWTP for 12 months after the completion of the WWTP.
2. Upon completion of the 12 month phosphorous monitoring program the Village will be allowed 6 months to evaluate its options for achieving compliance with the final effluent phosphorous limit.
3. After review and approval of the proposed improvements to meet the phosphorous limit, the Village will have 9 months to complete construction of the improvements.

It has been determined that further WWTP improvements are necessary to comply with its State Pollutant Discharge Elimination System (SPDES) permitted phosphorous limitations.

The major component of the phase 2 WWTP improvement project includes the addition of two tertiary cloth disk effluent filters. Installation of the filter units shall enable the WWTP to meet its new phosphorus limitation of 4.3 pounds per day. The filter system will consist of two cloth disk filters connected in parallel with one of the units being a reserve unit.

The filters will be installed in an existing sludge drying bed structure. In addition to the filters, the structure will be modified to accommodate any necessary ancillary piping modifications. Improvements to the building's structure shall include a new roof and insulation, new insulated walls and installation of any necessary mechanical appurtenances.

A small amount of process piping will be installed outside of the sludge drying bed structure to connect the filters to the clarifiers and effluent piping. Backwash process piping will also be installed to connect the filters to the filtrate pump station on the exterior of the building. The majority of piping for this project will be installed in the interior of the structure, with only minimal pipe being laid outside below frost depth.

Phase 2 will also include modifications to the existing grit removal system.. The existing mechanical equipment is in a dilapidated state and needs to be replaced. Also included in this project is an emergency replacement of the existing outfall structure in the Mettawee River. This project was completed in 2004, and the cost will be refinanced in the CWSRF loan in the phase 2 project.

Improvements to the Village's WWTP are recommended on the basis of improving the plant's effluent quality.

The total estimated project cost is \$2,600,000. The project is scheduled to begin construction in June and be completed by May 2010.