ERIE COUNTY DIVISION OF SEWERAGE MANAGEMENT – DESCRIPTION OF WASTEWATER TREATMENT FACILITIES

Permit No.	Name	Description of Facility
NY0022543	Erie County Sewer District No. 2 Big Sister Creek WWTP 8443 Lakeshore Rd. Angola, NY 14006	A 7.68 MGD design flow extended aeration, nitrification plant consisting of an influent wet well with a bar screen and muffin monster/grinder, followed by an aerated grit chamber, and two parallel 2.27 million gallon extended aeration basins. After aeration the flow enters three secondary clarifiers. The largest clarifier is operated as a single-stage process. The other clarifiers are grouped into two-stage operations. Ferric chloride is added to both the secondary clarifiers in the series for phosphorous removal. Effluent flow is sent to two travelling bridge sand filters (5.6 MGD each unit) for polishing before final UV disinfection and aeration in a re-aeration chamber before final discharge through a Parshall Flume into Big Sister Creek. Sludge from the clarifiers either is returned to the aeration basins, or is wasted to one of two Dissolved Air Flotation Thickeners before being pumped to one of two aerobic digesters. Digested sludge is sent to either a Plate and Frame Filter Press to be dewatered with polymer or asphalt drying beds before landfill disposal. During wet weather occurrences, when the flow exceeds plant capacity, flow is diverted to a 1.76 MG Overflow Retention Facility where it is provided primary settling treatment and disinfection.
NY0020681	Erie County Sewer District No. 3 Blasdell WWTP 3595 Jeffery Blvd. Blasdell, NY 14219	A permitted .83 MGD Trickling Filter Plant. The plant is designed for 2.89 MGD. The plant has preliminary treatment with convention gravity grit chambers, comminuter and bar screen, primary treatment provided by 3 mechanically cleaned rectangular sedimentation tanks where primary sludge is wasted each operational day to anaerobic digesters. Primary effluent flows to a distribution chamber and subsequently to the trickling filters. The trickling filters are covered high rate two-stage plastic media system capable of treating high organic and hydraulic loads. There are 4 mechanically cleaned rectangular final tanks where floating solids and scum are collected to a scum collector and with sludge off the bottom, sent back to the head of the plant and removed in the primary clarifiers. Plant effluent flows to a hypochlorite contact chamber and disinfection is maintained via hypo injectors. Plant effluent is not discharged to the receiving stream but is blended with the Southtowns effluent and then discharged to Lake Erie. Solids handling is accomplished through anaerobic digestion of secondary and primary sludges and then is dewatered in uncovered drying beds. Grit is removed to drying beds and dewatered and with the dried sludge is hauled to the land fill for disposal.
NY0108103	Erie County Sewer District No. 3 Holland WWTP 457 N. Main Street Holland, NY 14080	Design daily average flow is .18 MGD. Wastewater enters the plant through a 12” main passing through a Muffin Monster into an aerated equalization basin. Wastewater is pumped into two primary clarifiers. Here Settled sludge is wasted into 2 aerobic digesters. The waste stream is divided and channeled through one of two, 2-stage rotating biological contactor (RBC) trains. Flow continues into two secondary clarifiers. Biological and inorganic solids are settled and pumped back to the wastewater influent pipe and mixed with incoming raw influent. The secondary clarifier effluent flows into two tertiary sand filters. The Final effluent flows into tanks where ultraviolet disinfection is used from May 15 to Oct. 15 as required by permit. The treated final effluent is then discharged to Cazenovia Creek. Stabilized sludge is pumped from one of the aerobic digesters into one of 3 drying beds for dewatering. Sludge is dried to a minimum of 20% solids and then disposed in a landfill.

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Permit No.	Name	Description of Facility
NY0095401	Erie County Sewer District No. 3 Southtowns AWT Facility S-3690 Lakeshore Rd. Blasdell, NY 14219	A 16 MGD activated sludge sewage treatment plant. Preliminary treatment consists of three mechanically cleaned bar screens. The raw sewage is then conveyed by three Archimedes spiral screw pumps to the upper influent flume. At this point excess high flow caused by wet weather events can be diverted to a 7 MG Overflow Retention Facility (ORF) for treatment at a later time Should a discharge occur from the ORF, it receives primary settling and disinfection. The secondary treatment process consists of four UNOX pure oxygen activated sludge reactors, each having its own dedicated secondary clarifier. The clarified effluent is further polished using mono media rapid sand filtration. Final effluent is disinfected with Sodium Hypochlorite prior to being pumped to Lake Erie. Sludge disposal consists of gravity thickening, plate and frame dewatering, and incineration using two fluidized bed incinerators. Ash is dried on site and then hauled to a landfill.
NY0167169	Erie County Sewer District No. 5 Clarence Research Park WWTP 10000 Wehrle Drive Clarence, NY 14034	Is a small package activated sludge treatment plant designed for 20,000 gpd consisting of an equalization chamber, activated sludge aeration, secondary clarification and a polishing filter. Effluent disposal is done subsurface injection. Sludge is digested in an aerobic digester and then hauled to the Southtowns treatment facility for incineration.
NY0022136	Erie County Sewer District No. 6 Lackawanna WWTP 260 Lehigh Avenue Lackawanna, NY 14218	Facilities consist of three (3) Treatment Facilities. First is the Willmuth Pre-Treatment facility where the sewages passes thru bar screens followed by grit removal. Variable speed pumps then convey the sewage to the Treatment Plant which is a 4.5 MGD Advanced Wastewater Facility utilizing primary rectangular settling tanks and a pure oxygen activated sludge process with chemical addition (alum) for the removal of phosphorus. There is a 5 MG Overflow Retention Facility which provides Primary treatment followed by sodium hypochlorite addition for disinfection during periods of inclement weather. Sludge treatment consists of thickening, two stage anaerobic digestion followed by dewatering via a plate and frame press, and hauled to a landfill.
NY0028436	Erie County Sewer District No. 8 East Aurora WWTP 201 Mill Street East Aurora, NY 14052	A 3.14 MGD design flow Counter Current Low Load Aeration Plant The plant has a peak flow of 4.35 MGD and 6.5 MGD Max rain water flow. The plant has preliminary treatment, with a fixed bar screen and mechanical screen. Grit removal is accomplished in 2 parallel channels and a mechanical grit removal conveyor is provided in one of the channels. There is no primary clarification. The 2 counter current units are the heart of the low load aeration process. They consist of duplicate, concentric tanks, with outer rings being the aeration tanks. All biological process function occurs in the aeration reactors. Air is delivered to the reactors via rotary piston blowers mounted in the lower level of the piston blower building. Mixed Liquor is continuously returned to the influent of the aeration reactor. Clarifier effluent flows over the weirs to the automatic rapid sand filtration, filter effluent then flows to the chlorine contact chamber where seasonal (May 15th through October 15th) disinfection with chlorination followed by dechlorination is performed. Solids removal is accomplished through wasting to one of 3 aerobic digesters. Dewatered sludge is then centrifuged with polymer addition for dewatering and hauled to a landfill for disposal.