ERIE COUNTY DIVISION OF SEWERAGE MANAGEMENT – DESCRIPTION OF TREATMENT FACILITIES
Revised 08/28/18

Permit No.	Name	Description of Facility
NY0022543	Erie County Sewer District No. 2 Big Sister Creek WRRF 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 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 the 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 prior to discharge should conditions dictate.
NY0108103	Erie County Sewer District No. 3 Holland WRRF 457 N. Main Street Holland, NY 14080	Design daily average flow is 0.18 MGD. Wastewater enters the plant through a 12”diameter main passing through a Muffin Monster grinder 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.
NY0095401	Erie County Sewer District No. 3 Southtowns AWT Facility S-3690 Lakeshore Rd. Blasdell, NY 14219	Southtowns is a 16 MGD (initial design flow)- activated sludge water resource recovery facility. Preliminary treatment consists of three mechanically cleaned bar screens. The raw sewage is then conveyed via 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 will receive 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 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 using polymer, and incineration using two fluidized bed incinerators. Ash is dried on site and then hauled to a landfill. Phosphorus is removed via the addition of ferrous chloride to the headworks of the facility.

NY0167169	Erie County Sewer District No. 5 Clarence Research Park WRRF 10000 Wehrle Drive Clarence, NY 14034	This facility 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 via 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 WRRF 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 main 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 increased flow. Sludge treatment consists of thickening, two stage anaerobic digestion followed by dewatering via a plate and frame press, and hauled to a landfill via County vehicles.
NY0028436	Erie County Sewer District No. 8 East Aurora WRRF 201 Mill Street East Aurora, NY 14052	A 3.14 MGD design flow Counter Current Low Load Aeration Plant (aka the Schreiber Process). 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 two 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. Filtered 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. Digested sludge is then centrifuged with polymer addition for improved dewatering and hauled to a landfill for disposal. Hauling is done by contracted vendor.