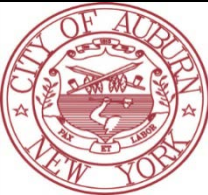


Combined Sewer Overflows

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Presentation Overview

- Introduction to CSO's
- Auburn's Sewer System Overview
- Historical Overflow Events
- NYALERT and Public Notification
- Next Steps
- Questions

What is a CSO?

- Combined Sewer Overflow is any discharge of sanitary sewer to a receiving water body that results from high flows experienced during wet weather.
- Auburn WWTP – 40% +/- unmetered flow.
 - Inflow and Infiltration (I&I)
 - Hydrant Testing or Water Main Breaks
 - Other unmetered flows – Wholesale customers, basement drains, sump pumps
- In the early 1990's City of Auburn Consent Order resulted in current sewer conveyance configuration.
- Auburn is a CSO community – all discharges from CSO Facilities are permitted and monitored by NYSDEC and USEPA.

The Collection System

- 1000 record maps
- 100+ Miles of Sanitary Sewer in a 16 square mile City
- 65 miles of storm sewer
- 4000-5000 MH's and CB's
- 20 wholesale connections and 4 towns
- 7.60 MGD 4 year average flow
- Primarily material Clay Pipe.
- 4 High rate CSO's
- 1 Storage and Release Facility



Storage and Release Facility

Basis of Design

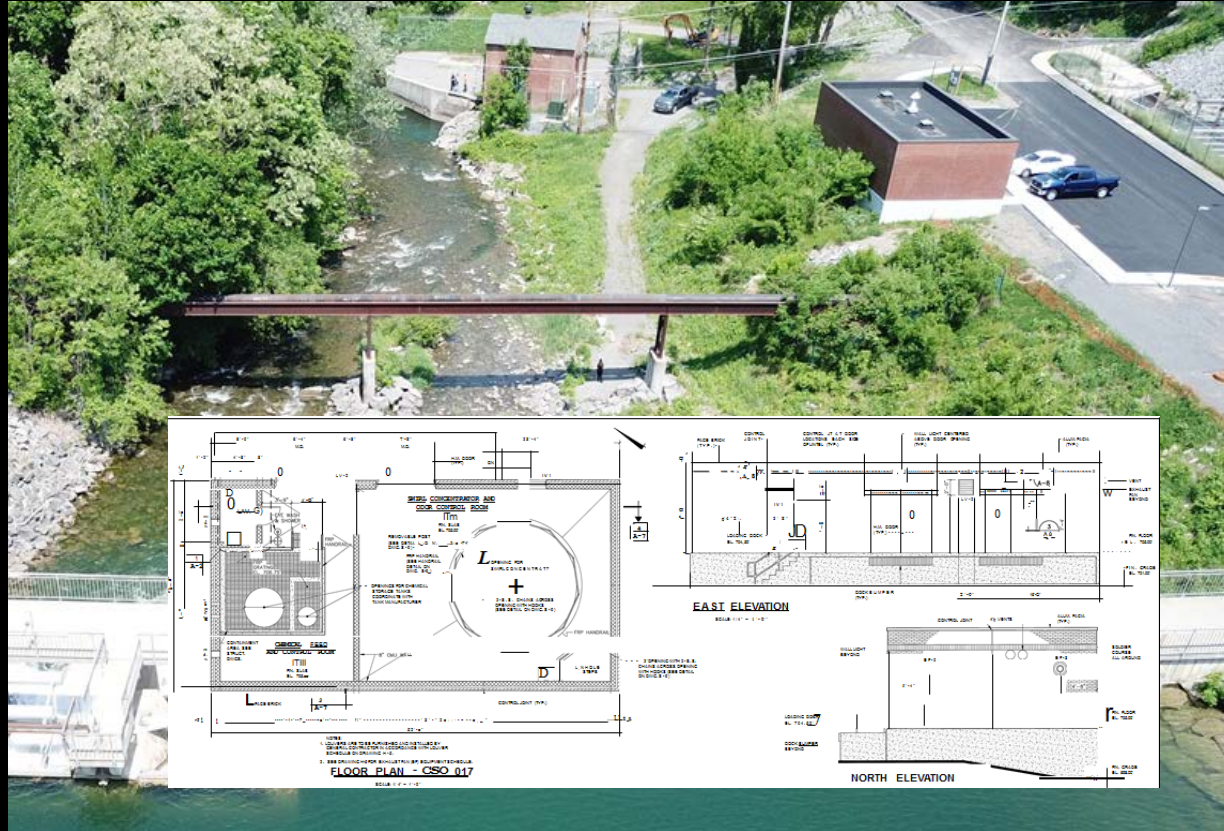
- 1993 Consent Order
- 6.5 Million Gallon Capacity
- Activates at 3.5 MGD in Interceptor Sewer
- Designed to fill during peak flows
- Slowly drains as interceptor flows decrease.
- Designed down stream restriction of 3.5 mgd flow
- Permitted to discharge when tank fills



High Rate Treatment x 4

Basis of Design

- Built per 1993 Consent Order
- Designed to activate during the 6 month storm event
- Swirl concentrators separate solid material from sewer flow
- Observations indicate short duration, high intensity storms cause most activations
- Permit max discharge allowance per year is 4 x per CSO facility



Historical Overflow Events/Activations

Year	Miller Street	Genesee Street	Wadsworth Street	Venice Street	John Walsh Blvd.	WWTP ORF	WWTP ORF Post UV
2014						10	5
2015						15	4
2016	2	3	1	0	1	13	5
2017	2	3	0	0	3	12	5
2018	1	1	1	0	1	3	3

NYSDEC SPDES permit allows up to 4 activations for each CSO in a given year.
The last column indicates the estimated ORF Activations once UV capacity is increased.

NYALERT – Full Transparency

- In 2016, NYSDEC implemented NYALERT program.
<https://alert.ny.gov/>
- City applied for \$50,000 grant to develop NYALERT into current SCADA system at WWTP
- Grant awarded, as of Fall 2018 – 100% Implemented
- Any overflow event must be recorded within 2 hours of actual occurrence!!

Next Steps



- Accurate and comprehensive data set. City to GPS and integrate Sanitary and Storm System into GIS
- Improve wholesale metered connections
- Engineering Planning Grant – Couple current mapping project with further engineering study including flow study to identify and prioritize I&I removal.
- Identify further separation projects which incorporate state of the art storm water quality basins along the Owasco River.
- Further investigate and prioritize collection system improvements and opportunities, repeat.
- Continue to implement BMP's and fund Sewer Slipline Projects keeping the separated system in good condition.
- Look for development opportunities and increase capacity for future business and industry.
- Partner with outside towns and villages to increase our conveyance capacity around Owasco Lake.

Questions