



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF WATER  
**COMBINED SEWER OVERFLOWS ANNUAL REPORT**

**PART I. GENERAL INSTRUCTIONS:** The Combined Sewer Overflows (CSO) Annual Report is consistent with the EPA CSO Long-Term Control Policy requiring permitting authorities to report "Measures of Success" of the policy implementation. Hence, the goal of this report is to obtain information regarding:

1. Compliance with the 15 CSO Best Management Practices;
2. The condition and operation of the combine sewer system (CSS) components. Most importantly, the end-of-pipe measures that show trends in the discharge of CSS flows to the receiving water body, such as reduction of pollutant loadings, the frequency of CSOs, and the duration of CSOs;
3. Receiving water body measures that show trends of the conditions in the water body to which the CSO occurs;
4. Overall status of the CSO LTCP, if applicable;
5. Key CSO control accomplishments and design and construction progress in the previous year

**Permittee must complete ALL parts of the form and must attach all supporting documents.** Please be aware that this annual report form template highlights the minimum requirement a permittee is expected to submit. Permittee is obligated to complete abatement activities to ensure compliance with the Clean Water Act. This report is also consistent with NYS 6 NYCRR 750-2.1(i).

**Special Instructions:**

1. Multiple permittees (for instance NYC and Albany Pool) responsible to develop a single LTCP can submit one form and also complete Section D of this form.
2. **ALL SECTIONS OF THIS REPORT MUST BE COMPLETED.**

**Part II - CSO LTCP Control Information**

<b>CSO Facility:</b> Bird Island Sewage Treatment Plant	<b>Flow:</b> 180.00MGD
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**SECTION A: CSO LTCP GENERAL INFORMATION**LTCP Development/Implementation:

Check all that apply:	<i>Describe other controls currently being used or planned. Also describe how the objectives of the CSO Control Policy have been met.</i>
In Development <input type="checkbox"/>	The Buffalo Sewer Authority's Long Term Control Plan was approved by the EPA on March 18, 2014 and is scheduled for completion on March 18, 2034.
Submitted <input type="checkbox"/>	
Approved <input checked="" type="checkbox"/>	
In Progress <input checked="" type="checkbox"/>	
Completed <input type="checkbox"/>	
Not Required <input type="checkbox"/>	

CSO Controls:

Check all that apply:	<i>Describe other controls currently being used or planned. Also describe how the objectives of the CSO Control Policy have been met under the selected controls</i>
Source Controls <input checked="" type="checkbox"/>	The Buffalo Sewer Authority's Long Term Control Plan was approved on March 18, 2014 and incorporates gray infrastructure projects such as weir raising, a floatable control facility, a new relief sewer, in-line storage facilities, CSO in-line storage facilities, upgrades to the existing wastewater treatment plant (WWTP) and off-line storage facilities and green infrastructure projects such as removal of impervious surfaces, permeable pavement, and bio-retention facilities.
Collection System Controls <input checked="" type="checkbox"/>	
Storage Technologies <input checked="" type="checkbox"/>	
Treatment Technologies <input checked="" type="checkbox"/>	
Floatable Controls <input checked="" type="checkbox"/>	
Disinfection <input type="checkbox"/>	
Type:	

Post-Construction Compliance Monitoring (PCCM) Program:

Check all that apply:	<i>Describe PCCM findings, status, updates, and future plan. Attach a separate sheet if necessary and describe if the PCCM confirms that LTCP is meeting the objectives of the CSO Control Policy</i>
In Development <input type="checkbox"/>	The Buffalo Sewer Authority's Post Construction Monitoring Plan was approved on March 1, 2016.
Submitted <input type="checkbox"/>	
Approved <input checked="" type="checkbox"/>	
In Progress <input type="checkbox"/>	
Completed <input checked="" type="checkbox"/>	
Not Required <input type="checkbox"/>	

## Part II - CSO LTCP Control Information

### SECTION B: OUTFALL INFORMATION

List all existing and active CSO the outfalls. Attach extra sheets, if necessary.

Outfall #	Latitude	Longitude	Receiving Water/Classification	# of Regulators Associated with this Outfall	Type of Regulator(s) Associated with this Outfall (Fixed Dam, Float / Dynamic, Elevated Pipe, Wet Well Overflow, etc.)
003	42.9372	-78.9072	Black Rock Canal/C	11	Weir & Orifice
004	42.9261	-78.8992	Black Rock Canal/C	1	Leaping Weir
005	42.9242	-78.8908	Black Rock Canal/C	2	Elevated Pipe
006	42.9222	-78.8914	Black Rock Canal/C	7	Weir & Orifice
007	42.9222	-78.9222	Black Rock Canal/C	1	Weir & Orifice
008	42.9208	-78.9000	Black Rock Canal/C	1	Leaping Weir
009	42.9189	-78.9008	Black Rock Canal/C	1	Leaping Weir
010	42.9172	-78.9014	Black Rock Canal/C	1	Leaping Weir
011	42.9136	-78.9033	Niagara River/A-Special	1	Weir & Orifice
012	42.9133	-78.9019	Black Rock Canal/C	1	Weir & Orifice
013	42.8889	-78.8936	Buffalo Inner Harbor/C	1	Weir & Orifice
014	42.8836	-78.8867	Erie Basin/C	2	Weir
015	42.8828	-78.8853	Erie Basin/C	2	Leaping Weir
016	42.8819	-78.8825	Erie Basin/C	2	Weir & Orifice
017	42.8772	-78.8797	Buffalo River/C	20	Weir, Orifice, Elevated Pipe
022	42.8731	-78.8747	Buffalo River/C	4	Weir, High Pt. Sewer, Elevated Pipe
023	42.8669	-78.8681	Buffalo River/C	1	Weir
025	42.8642	-78.8603	Buffalo River/C	1	Weir
026	42.8636	-78.8508	Buffalo River/C	45	RTC, Weirs & Leaping Weir
027	42.8633	-78.8378	Buffalo River/C	1	Weir & Orifice
028	42.8606	-78.8322	Buffalo River/C	7	Weirs & Elevated Pipe
029	42.8606	-78.8322	Buffalo River/C	3	Weir & Orifice
031	42.8603	-78.8247	Cazenovia Creek/C	1	Weir
032	42.8619	-78.8264	Buffalo River/C	1	Leaping Weir
033	42.8633	-78.8258	Buffalo River/C	5	Leaping Weir



**Part II - CSO LTCP Control Information****SECTION B: OUTFALL INFORMATION***List all existing and active CSO the outfalls. Attach extra sheets, if necessary.*

Outfall #	Latitude	Longitude	Receiving Water/Classification	# of Regulators Associated with this Outfall	Type of Regulator(s) Associated with this Outfall (Fixed Dam, Float / Dynamic, Elevated Pipe, Wet Well Overflow, etc.)
035	42.8506	-78.8086	Cazenovia Creek/B	2	Weir & Orifice
037	42.8525	-78.8114	Cazenovia Creek/C	1	Weir
038	42.8528	-78.8111	Cazenovia Creek/C	3	Weir
039	42.8536	-78.8128	Cazenovia Creek/C	1	Leaping Weir
040	42.8542	-78.8128	Cazenovia Creek/C	1	Weir
042	42.8553	-78.8142	Cazenovia Creek/C	3	Weir & Elevated Pipe
044	42.8575	-78.8183	Cazenovia Creek/C	4	Leaping Weir
046	42.8589	-78.8203	Cazenovia Creek/C	1	Leaping Weir
047	42.8597	-78.8228	Cazenovia Creek/C	5	Weir
048	42.8606	-78.8247	Cazenovia Creek/C	2	Weir & Orifice
049	42.8617	-78.8267	Buffalo River/C	1	Weir & Orifice
050	42.8556	-78.8211	Buffalo River/C	1	Weir & Orifice
051	42.8619	-78.8106	Buffalo River/C	1	Weir & Orifice
052	42.8650	-78.8022	Buffalo River/C	2	Weir & Orifice
053	42.9239	-78.8572	Scajaquada Creek/A	42	Weir & Orifice
054	42.9519	-78.9100	Niagara River/A-Special	7	Weir
055	42.9431	-79.9097	Niagara River (Cornelius Creek)	1	Weir
056	42.9350	-78.8775	Scajaquada Creek/A	2	Weir
057	42.9286	-78.8978	Scajaquada Creek/A	1	Weir
058	42.9303	-78.8958	Scajaquada Creek/A	3	Weir
059	42.9308	-78.8942	Scajaquada Creek/A	3	Weir
060	42.9344	-78.8783	Scajaquada Creek/A	12	Weir
061	42.9208	-78.9003	Black Rock Canal/C	1	Weir
062	42.9153	-78.9019	Black Rock Canal/C	1	Weir
063	42.9028	-78.9019	Black Rock Canal/C	1	Weir



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List all existing and active CSO the outfalls. Attach extra sheets, if necessary.

[illegible]

Permittee Name:

SPDES Permit No.:  
Part II - CSO LTCP Control Information

NY-0028410

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**SECTION C: CSO EVENTS, DISCHARGE VOLUME, ETC. Provide an estimate or actual data on overflow events. If necessary, use a separate spreadsheet to report all CSO outfalls**

CSO Outfall	No. of overflow events in the previous year		Total Annual CSO Volume Discharged (MG)		Total Annual Volume Captured or Diverted to POTW (MG) Assuming a Baseline Condition of 0.0 MG		# of CSO Outfalls		Indicate Type of Overflow Measurements (e.g. metered, estimated or modeled). If other, please describe
	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	
003	27	7	4.5	3.24	0	1.3	1	1	All flow volumes and event frequencies in this table represent the predicted combined sewer overflows only (excluding stormwater and stream inflows) utilizing the combined system model from the approved Long Term Control Plan. Values for baseline conditions are based on the Modified 1993 Typical Year Precipitation and use the original 2014 model. Current conditions reflect As-Built Data for projects completed to date for conformance with the Administrative Order and design flows for the planned development at RiverBend with precipitation values based on the annual precipitation at the NOAA station at the Buffalo Niagara International Airport and utilize the recalibrated 2019 model. Because two different precipitation data sets and models are being used, a true comparison of data is not possible.
004	8	11	16.2	8.85	0	7.4	1	1	
005	4	0	0.1	0	0	0.1	1	1	
006	65	39	189.5	42.57	0	146.9	1	1	
007*	0	3	0	0.53	0	-0.5	1	1	
008	44	0	8.2	0	0	8.2	1	1	
009*	0	0	0	0	0	0.0	1	1	
010	44	22	11.8	14.59	0	-2.8	1	1	
011	41	38	132.3	283.3	0	-151.0	1	1	
012	47	39	71.2	100.76	0	-29.6	1	1	
013	14	8	13.6	8.99	0	4.6	1	1	
014	17	14	26.2	36.07	0	-9.9	1	1	
015	12	1	5.7	0.11	0	5.6	1	1	
016	4	0	0.0	0	0	0.0	1	1	
017	61	27	90.3	214.11	0	-123.8	1	1	
022	85	27	39.8	3.02	0	36.8	1	1	
023*	0	2	0	0.45	0	-0.5	1	1	
025	11	7	1.4	3.29	0	-1.9	1	1	
026	75	9	142.7	80.17	0	62.5	1	1	
027	38	19	19.7	74.63	0	-54.9	1	1	
028	73	38	44.4	29.31	0	15.1	1	1	
029	0	15	0	15.08	0	-15.1	1	1	
031*	0	0	0	0	0	0.0	1	1	
032	0	0	0	0	0	0.0	1	1	
033	8	25	35.9	143.98	0	-108.1	1	1	
035	22	0	4.8	0	0	4.8	1	1	
037	15	15	21.2	23.74	0	-2.5	1	1	
038*	0	2	0	0.44	0	-0.4	1	1	
039	2	0	0	0	0	0.0	1	1	
040*	0	1	0	0.11	0	-0.1	1	1	



Permittee Name:

SPDES Permit No.:  
Part II - CSO LTCP Control Information

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**SECTION C: CSO EVENTS, DISCHARGE VOLUME, ETC. Provide an estimate or actual data on overflow events. If necessary, use a separate spreadsheet to report all CSO outfalls**

CSO Outfall	No. of overflow events in the previous year		Total Annual CSO Volume Discharged (MG)		Total Annual Volume Captured or Diverted to POTW (MG) Assuming a Baseline Condition of 0.0 MG		# of CSO Outfalls		Indicate Type of Overflow Measurements (e.g. metered, estimated or modeled). If other, please describe
	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	
042*	0	0	0	0	0	0.0	1	1	All flow volumes and event frequencies in this table represent the predicted combined sewer overflows only (excluding stormwater and stream inflows) utilizing the combined system model from the approved Long Term Control Plan. Values for baseline conditions are based on the Modified 1993 Typical Year Precipitation and use the original 2014 model. Current conditions reflect As-Built Data for projects completed to date for conformance with the Administrative Order and design flows for the planned development at RiverBend with precipitation values based on the annual precipitation at the NOAA station at the Buffalo Niagara International Airport and utilize the recalibrated 2019 model. Because two different precipitation data sets and models are being used, a true comparison of data is not possible.
044	15	3	6.5	1.65	0	4.9	1	1	
046	9	0	1.1	0	0	1.1	1	1	
047	47	10	10.4	3.87	0	6.5	1	1	
048	14	0	1.5	0	0	1.5	1	1	
049	0	0	0	0	0	0.0	1	1	
050	21	9	4.1	3.13	0	1.0	1	1	
051	19	0	3.7	0	0	3.7	1	1	
052	12	0	13.6	0	0	13.6	1	1	
053	65	39	275.0	504.97	0	-230.0	1	1	
054	4	0	0.1	0	0	0.1	1	1	
055	40	36	617.8	1043.23	0	-425.4	1	1	
056	5	0	0	0	0	0.0	1	1	
057	11	0	0	0	0	0.3	1	1	
058	6	0	0	0	0	0.0	1	1	
059	17	17	5	10.36	0	-5.3	1	1	
060	11	0	2.9	0	0	2.9	1	1	
061	11	0	34.0	0	0	34.0	1	1	
062*	0	0	0	0	0	0.0	1	1	
063	49	2	1.5	0.41	0	1.1	1	1	
064	56	27	26.2	15.61	0	10.6	1	1	
066	16	6	2.5	10.15	0	-7.7	1	1	
	1145	518	1,886	2,681	0	-794.9	52	52	

\*These CSOs were excluded from the model due to lack of hydraulic significance and negligible CSO discharge

\*\* 2001 System Conditions with Modified 1993 Typical Year Precipitation Data

\*\*\* 2019 System Conditions with 2019 Precipitation Data as Reported at the NOAA station located at the Buffalo Niagara International Airport.



**Part II - CSO LTCP Control Information**

**SECTION D: Collection System Information**

	Baseline	After CSO BMP and/or LTCP Implementation	Current
Percentage of the collection system owned by the permittee that is combined.	93	93	93
Approximate no. of miles of combined sewers in the permittee owned system	790	790	790
Number of combined sewer outfalls in the permittee owned system	65	52	52
Average annual no. of CSO events in the permittee owned system	1145	117	518
Average annual CSO volume discharged from the permittee owned system (MG)	1886	486.3	2681
Population served by the permittee's owned system	292,648	261,310	256,304
Number of satellite system connections	7	7	7

Use the space below to provide any further relevant information on the collection system. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of satellite system connections. (Attach extra sheets, if necessary):

Discharges to the Buffalo Sewer Authority's Combined Sewer System from satellite sanitary sewer districts are restricted through inter-municipal agreements, these values were utilized in constructing the flow model or the LTCP:

1. Town of Cheektowaga: 45 MGD
2. Erie County Sewer District #4: 20 MGD
3. Erie County Sewer District #1: 17.82 MGD
4. West Seneca Town Sewer Districts #5, 13, \* 14: 12.8 MGD
5. Village of Sloan: 5.18 MGD
6. West Seneca Town Sewer Districts #1, 2, 3, 4, 9, & 10: 3.49 MGD
7. West Seneca Town Sewer District #15: 0.39 MGD

**Part II - CSO LTCP Control Information**

**SECTION F: Use this section to describe how the implementation of the LTCP development and implementation have met the water quality standards of the receiving stream(s) and also objectives of the EPA CSO Control Policy (attach extra sheets as necessary):**

The approved Long Term Control Plan uses a careful balance of traditional gray infrastructure as well as innovative green solutions. This is the right approach for this community and although it is financially burdensome, it is designed to protect the environment in the most affordable and cost-effective manner possible. During the development of the LTCP the BSA conducted a careful analysis of detailed receiving stream water quality modeling results. This analysis revealed that a uniform level of CSO control for all BSA receiving water bodies would be neither cost effective nor necessary to meet the established water quality standard (WQS) in each waterbody in large part due to the extremely varied nature of the CSO receiving waters. The evaluation results showed that the knee of the curve indicates that the approved plan for each receiving water body is designed to provide 100% attainment of the New York State (NYS) recreational WQS. Therefore, the BSA's approved alternative was assembled with a primary focus on providing a cost-effective attainment of the current NYS bacteria WQS in each water body and the associated frequency of activations necessary to accomplish those WQS. The frequency of activation as the performance measurement corresponds to the USEPA CSO Control Policy presumptive approach. Following implementation of the Recommended Plan, based on existing conditions, all water bodies in the BSA system will be positioned to produce less than or equal to 6 events per typical year level of control with the exception of the Niagara River (less than or equal to 9 events per year). The approved LTCP will have a probable project cost of \$380 million and will be implemented over a 20 year period.

**SECTION G: Use the following space to summarize other planned CSO control projects (attach extra sheets as necessary):**

See attached Approved BSA CSO LTCP implementation schedule from the EPA's Amended Administrative Order CWA-02-2014-3033.

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Name: Oluwole A. McFoy, P.E.

Official Title: General Manager

Phone: (716)851-4664

Signature: 

Date Signed:

Email: omcfoy@buffalosewer.org



PERMITTEE NAME: 1

SPDES PERMIT No.: NY-0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**Check N/A if not required in the permit, consent order, or LTCP:

1. CSO Maintenance/Inspection 6 NYCRR 750-2.8(a)(2) (EPA NMC: Proper Operation and Maintenance)	YES	NO	N/A
Is there a written program for the operation, inspection and maintenance of the CSS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the program include procedures for ALL outfalls in the permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the program include procedures for ALL regulators in the permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are inspections conducted at least as frequently as required in the permit (weekly or monthly)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are inspections conducted during dry and wet weather?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Do the inspection reports indicate visual inspection, any observed flows, incidence of rain or snowmelt, condition of equipment, and any work required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are inspection reports submitted to the DEC regional office with the monthly operating reports?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the written program sufficiently detailed? Indicate which of the following additional components are included in the plan.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pump Stations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewer cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewer Manholes and Catch Basins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfalls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CSO Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there Inter-municipal agreements which require inspection and maintenance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any changes planned in the upcoming year for the agreements to make them more effective?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the collection system mapped using GIS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entire system, including manholes and catch basins?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year, was significant mapping progress accomplished?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the upcoming year, is GIS mapping planned?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the collection system monitored using a SCADA system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year, was significant progress accomplished in installing or expanding monitoring with a SCADA system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the upcoming year, is installation of a SCADA system planned or being expanded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the municipality have an asset management plan that includes the collection system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are funds available to carry out the BMP requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any major equipment purchases planned or expected in the next five years related to the BMP requirements? If yes, describe below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the pump inventory, including spare parts, adequate for the upcoming year?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is sufficient staff training available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BMP 2 /CSO Maintenance &amp; Inspections



PERMITTEE NAME: 1

SPDES PERMIT NO.: NY- 0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

Is funding for training adequate and available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	YES	NO	N/A
Is sufficient staff training available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is funding for training adequate and available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Fewer events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Less volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Reduction in floatables, settleable solids or oil and grease discharged	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Reduction in industrial pollutants (chemicals)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Improvement in water quality of receiving waterbody	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
In the past year, was the inspection and maintenance program mostly:			
Reactive (responding to problems)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proactive (focusing on preventative maintenance to avoid problems)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the program is mostly reactive, describe below any plans to shift the emphasis to prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b></p> <p><b>2019 Improvements:</b></p> <ol style="list-style-type: none"> <li>1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance;</li> <li>2. Commenced contract to remove additional grit from East Ferry Trunk and South Park Stormwater detention system;</li> <li>3. Integration of the Hazelwood RTC into the SCADA system;</li> <li>4. Removal of grit and debris from Albany Street interconnection;</li> <li>5. Commenced repairs to Albany Street outfall pipe;</li> <li>6. An NGICP training was held in Spring of 2019 to train staff in maintenance of green infrastructure practices; and</li> <li>7. A hot spot list was created to facilitate proactive maintenance of trouble areas.</li> </ol> <p><b>Planned 2020 Improvements:</b></p> <ol style="list-style-type: none"> <li>1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance;</li> <li>2. Conclude cleaning of East Ferry Trunk;</li> <li>3. Commencement of project to prevent future grit accumulation in East Ferry Trunk;</li> <li>4. Implementation of project to repair/replace sewers with utility conflicts;</li> <li>5. Integration of the North Bailey and Hertel-Deer RTCs into the SCADA system;</li> <li>6. Conclude repairs of Albany Street outfall pipe;</li> <li>7. Refinement of hot spot list;</li> <li>8. Finalization of sewer maintenance Core Competency Gap Analysis.</li> </ol> <p><b>Major equipment purchases:</b></p> <p>In 2019, 2 new combination machines, a backhoe, a salter, an air compressor, and a dump truck were all purchased. In 2020, the purchase of 1 dump truck, a trailer, SUV, and a pickup truck is planned.</p>			

**PART III - CSO BEST MANAGEMENT PRACTICES**

<b>2. Maximum Use of Collection System for Storage</b> 6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5) (EPA NMC: Maximum Use of Collection System for Storage)	Yes	No	N/A
Are CSOs minimized, and flow to the treatment plant maximized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the hydraulic capacity of the system been evaluated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a continuous program of flushing and cleaning to prevent deposition of solids?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have regulators and weirs been adjusted to maximize storage without causing service backups?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year or the upcoming year, have any changes to structures or procedures been made or planned that will improve use of the collection system for storage? Describe below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tidegates maintenance/repairs/replacement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FOG program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Removal of small systems bottlenecks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewer cleaning and sediment removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Removal of flow obstructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regulator or weir adjustment - list locations below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-line storage: Inflatable dams or sluice gates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wet Weather Operating Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the municipalities within the combined sewer system have a water conservation program for homeowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the upcoming year are there any studies, work, or projects planned (other than routine activities) to improve use of collection system for storage? Describe below.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b>  2019 Improvements: 1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance; 2. Commenced contract to remove additional grit from East Ferry Trunk and South Park Stormwater detention system; 3. Construction of the North Bailey and Hertel-Deer RTC projects; 4. Removal of grit and debris from Albany Street interconnection; 5. Commenced repairs to Albany Street outfall pipe; 6. Design of the Mill Race, Broadway at Oak, Smith at Eagle, and Babcock Pumping Station RTCs was commenced; 7. An NGICP training was held in Spring of 2019 to train staff in maintenance of green infrastructure practices; 8. A hot spot list was created to facilitate proactive maintenance of trouble areas; and 9. Construction was completed on the Willert-Park and 612 Northland green infrastructure projects.  Planned 2020 Improvements: 1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance; 2. Conclude cleaning of East Ferry Trunk; 3. Commencement of project to prevent future grit accumulation in East Ferry Trunk; 4. Implementation of project to repair/replace sewers with utility conflicts; 5. Integration of the Bailey Avenue and Hertel-Deer RTCs into the SCADA system; 6. Conclude repairs of Albany Street outfall pipe; 7. Refinement of hot spot list; 8. Finalization of Core Competency Gap Analysis; and 9. Completion of Niagara Street Phase 3 and Northland Avenue construction.			



PERMITTEE NAME: 1

SPDES PERMIT NO.: NY-0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

<b>3. Industrial Pretreatment</b> 6 NYCRR 750-2.7(f) and 2.9(a)(4) (EPA NMC: Review and Modify Pretreatment Requirements) <input type="checkbox"/> N/A	YES	NO	N/A
Has the impact on CSOs from nondomestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there an approved pretreatment or mini-pretreatment program?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If there is no pretreatment or min-pretreatment program, are there any nondomestic users? If No to both of the previous questions, go to BMP 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an inventory of industrial dischargers? Is the following information included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volume of discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pollutants in discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any pollutants classified as "persistent toxics" or bioaccumulative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the location included on the collection system map?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any industrial discharges that could reach CSO outfalls?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, have any industrial dischargers been identified as contributing to a water quality impairment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, does the industry have a holding tank or EQ tank to store wastewater prior to discharge to the collection system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, does the industry have a written plan to store or hold discharges during rain events?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, has the industry been asked to prepare a written plan to store or hold discharges?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In the past year, have there been negotiations or changes to agreements with industrial dischargers which will potentially reduce impacts during CSO events? Describe below.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the upcoming year, are any negotiations or changes to agreements with industrial dischargers planned which will potentially reduce impacts during CSO events? Describe below.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b></p> <p>Industrial discharges who violate their permits are cited by the Buffalo Sewer Authority and are required to come into compliance or face revocations of their permits. Permits are reviewed and renewed with any changed required to comply with EPA and NYSDEC regulations incorporated into the new permit on a three year cycle. All permits which require in the next year will be reviewed for compliance with 40 CFR Part 403 and sewer use rules, regulations, and laws.</p>			



**PART III - CSO BEST MANAGEMENT PRACTICES**

4. Maximize Flow to POTW 6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5) (EPA NMC: Maximum Flow to POTW for Treatment) <input type="checkbox"/>	YES	NO	N/A
N/A			
In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year, was the secondary treatment works able to treat the flows specified in the permit for all wet weather flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the answer to either of the above questions was No, has a plan and schedule to accomplish this been submitted to the Department?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
In the past year have there been any physical modifications to the collection system which have allowed more flow to reach the POTW? Describe below.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any physical modifications planned for the upcoming year?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? List below	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In the past year, have any new problem areas been identified that restrict flow to the plant? List locations below	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In the upcoming year, are there plans to address hydraulic restrictions or bottlenecks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pipe replacement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Construction of relief sewer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Construction of overflow tank	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pump station improvements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pump replacement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Weir adjustment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smoke testing, dye testing to identify illicit connections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE

MINIMUM CONTROLS. (Attach extra sheet if necessary)

2019 Improvements:

1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance;
2. Commenced contract to remove additional grit from East Ferry Trunk and South Park Stormwater detention system;
3. Construction of the North Bailey and Hertel-Deer RTC projects;
4. Removal of grit and debris from Albany Street interconnection;
5. Commenced repairs to Albany Street outfall pipe;
6. Design of the Mill Race, Broadway at Oak, Smith at Eagle, and Babcock Pumping Station RTCs was commenced;
7. An NGICP training was held in Spring of 2019 to train staff in maintenance of green infrastructure practices;
8. A hot spot list was created to facilitate proactive maintenance of trouble areas; and
9. Construction was completed on the Willert-Park and 612 Northland green infrastructure projects.

Planned 2020 Improvements:

1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance;
2. Conclude cleaning of East Ferry Trunk;
3. Commencement of project to prevent future grit accumulation in East Ferry Trunk;
4. Implementation of project to repair/replace sewers with utility conflicts;
5. Integration of the Bailey Avenue and Hertel-Deer RTCs into the SCADA system;
6. Conclude repairs of Albany Street outfall pipe;
7. Refinement of hot spot list; and
8. Completion of Niagara Street Phase 3 and Northland Avenue construction.

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**PART III - CSO BEST MANAGEMENT PRACTICES****5. Wet Weather Operating Plan (WWOP) 6 NYCRR 750-2.8(a) (EPA NMC: None)**☐ N/A

YES NO N/A

Has a WWOP been developed, specifying procedures for unit operations, to maximize treatment during wet weather events while not diminishing effluent quality or destabilizing treatment upon return to dry weather operation?



In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service?



Has the WWOP been developed in accordance with the DEC guidance, "Wet Weather Operating Practices for POTWs with Combined Sewers"? If no, describe changes needed.



Has the WWOP been submitted to the Regional Office and Bureau of Water Permits (Albany) for review and approval?



If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures?



If yes, has the revised plan been submitted to the Regional Office for approval?



Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?



In the upcoming year, are changes to the plan expected?



**DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)**

The Wet Weather Operating Plan was submitted to the NYSDEC in September 2007 and an updated version was submitted in May 2007. The primary bypass improvements project was completed in 2014 and the Wet Weather Operating Plan was updated to reflect changes associated with the distribution of wet weather flow through the WWTP that have resulted from this project and submitted to the NYSDEC Regional Office.



PERMITTEE NAME: 1

SPDES PERMIT No.: NY-0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

6. Prohibition of Dry Weather Overflows 6 NYCRR 750-2.7 and 2.8(b)(2) (EPA NMC: Eliminate Dry Weather Overflows) N/A	YES	NO	N/A
In the past year, were there any dry weather overflows? If no, skip to BMP 7.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all dry weather overflows reported in accordance with 6 NYCRR Part 750-2.7 (incident reporting)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If dry weather overflows occurred, indicate which procedures or equipment have been improved or replaced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule for routine inspections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Management, operation and maintenance program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modification of existing or issuance of new inter-municipal agreements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FOG program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Removal of illicit connections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I/I Control program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Leaky tidegates	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adjustment and/or repair of regulators	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pumps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Auxiliary power	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Elimination of hydraulic bottlenecks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adequate dry weather flow capacity at the treatment plant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other, list below	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has additional staff training been provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the likelihood of future dry weather overflows been eliminated? If not, describe additional information below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b>  The upstream system was researched for any major potential sources of rags and debris. Buffalo Sewer is currently exploring raising of the weir and/or real time monitoring of CSO 031. A new Fats, Oils, and Grease program coordinator has been hired and is in the process of developing a comprehensive FOG program.			

BMP 6 Prohibition of Dry Weather Overflows



**PART III - CSO BEST MANAGEMENT PRACTICES**

<b>7. Control of Floatables and Settleable Solids 6 NYCRR 750-2.8(a)(4)</b> <i>(EPA NMC: Control of Solid and Floatable Materials in CSOs)</i>	<input type="checkbox"/> N/A	YES	NO	N/A
In the past year, were did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have BMPs been implemented to eliminate or minimize the discharge of floatables and settleable solids?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have any of the following measures been implemented (either existing from previous years, in the past year) or will any be implemented in the upcoming year? If significant progress has been made in implementing these, or if significant improvements have occurred, describe below.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floatables quantification		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Booming and skimming of open waters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-line netting		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Screens		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Catch basin hoods		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any changes needed or planned for the upcoming year? Describe additional information below.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b>				
<p>Floatables capture by the Hamburg Drain Floatable Control Facility are quantified prior to disposal.</p> <p>Hoods have long been installed on catch basins and receivers within the Buffalo Sewer Authority's combined sewer system and are routinely replaced.</p> <p>Booming of significant outlets and source controls (see BMP 12 for more details) have also been implemented for some time within the Buffalo Sewer Authority's jurisdiction.</p> <p>A new Fats, Oils, and Grease program coordinator has been hired and is in the process of developing a comprehensive FOG program. Over the next year, it is anticipated that this program will begin to be implemented.</p>				

PERMITTEE NAME: 1

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**PART III - CSO BEST MANAGEMENT PRACTICES**

8. Combined Sewer System Replacement 6 NYCRR 750-2.10(i) (EPA NMC: None) <input type="checkbox"/> N/A	YES	NO	N/A
In the past year, were any combined sewers designed or constructed that were not approved by DEC?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, was the combined sewer replaced by separate sanitary and storm sewers to the greatest extent possible?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, were the separate sanitary and storm sewers designed and constructed simultaneously but without interconnections to the maximum extent practicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the combined portion of the collection system completely identified on maps or GIS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any plans or current projects to separate combined sewers into sanitary and storm sewers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there an approved engineering plan for this project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
In the past year, how many areas of combined sewer were separated? acres			
In the upcoming year, how many areas of combined sewer are scheduled to be separated? acres			
Are the sewer replacement projects on schedule? If no, describe below.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Overall, has the implementation of this BMP resulted in fewer overflow events and/or less volume discharged? Describe below.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b></p>			



PERMITTEE NAME: Buffalo Sewer Authority

SPDES PERMIT NO.: NY-0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

9. Combined Sewer Extension 6 NYCRR 750-2.10(i) (EPA NMC: None) <input type="checkbox"/> N/A	YES	NO	N/A
In the past year, were any combined sewers extended not using separate sewers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were sanitary and storm sewers extensions designed and constructed simultaneously but without interconnections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were any new sources of stormwater added to a separate sewer anywhere in the collection system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a recent combined sewer extension resulted in increased discharge from a CSO?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has a recent combined sewer extension resulted in increased flow to the POTW? Describe any CSO impacts below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is any development planned upstream of a combined sewer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, has a sewer extension plan been submitted for review and approval?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the approval contained a flow credit requiring removal of I/I, what was the requirement or ratio?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the plan include any flow retention structures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)**

Currently planned development upstream of the combined sewer system involves primarily private connections to the existing Buffalo Sewer Authority public combined sewer system. These private developments are subject to NYSDEC review for downstream capacity only; downstream capacity is determined by metering of dry weather flows and calculation of proposed flows based on the NYS Design Standards for Intermediate Sized Wastewater Treatment Systems, 2014. Public sewer extensions are submitted for full approval to the Erie County Health Department as an agent for the NYSDEC for approval.

As part of the Buffalo Sewer Authority's sewer tap permitting process for storm discharges, new development which involves a soil disturbance of 0.25 acres or more which are upstream of or directly discharge to the combined sewer system retain/detain on site post-construction flows during a 25 year storm in excess of pre-construction flows during a 2 year storm. New development which disturbs 0.25 acres or more of soil and discharge downstream of a regulator or directly to the MS4 system must comply with the post-construction standards as outlined in GP-0-15-002 (GP-0-20-001 for projects submitted on or after January 20, 2020).

PERMITTEE NAME: 1

SPDES PERMIT No.: NY- 0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

<b>10. Connection Prohibitions 6 NYCRR750-2.9(a)(5) (EPA NMC: None) <input checked="" type="checkbox"/> N/A</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
In the past year, were any sewer connections approved, in spite of a notice from DEC to prohibit further connections due to documented, recurrent instances of sewage backing up into house(s) or discharges of raw sewage onto the ground surface from surcharging manholes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are new connections prohibited by the DEC? If no, skip to BMP 11.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is this due to basement backups?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is this due to surcharging manholes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading? Describe below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)**



PERMITTEE NAME: 1

SPDES PERMIT No.: NY- 0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

11. <b>Septage and Hauled Waste</b> 6 NYCRR750-2.7(f) and 2.8(a)(1) (EPA NMC: None) <input type="checkbox"/> N/A	YES	NO	N/A
In the past year, has there been any discharge or release of septage or hauled waste into the collection system upstream of a CSO?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the facility have authorization from DEC to accept hauled waste or septage at a location other than the POTW? Describe below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are any of these locations upstream of a CSO?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there any agreements with haulers to accept waste at a location other than at the POTW?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
In the past year, was any hauled waste or septage accepted at a location other than at the POTW?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
What was the total volume received at locations other than the POTW?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a dedicated location to discharge septage at the POTW?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there restrictions on when the plant accepts hauled waste or septage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have there been any changes to the POTW's policy on septage and hauled waste in the past year? Are any changes needed or planned in the upcoming year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b>			

PERMITTEE NAME: 1

SPDES PERMIT NO.: NY-0028410

**PART III - CSO BEST MANAGEMENT PRACTICES**

12. Control of Run-off 6 NYCRR750- 2.1(e) (EPA NMC: None) <input type="checkbox"/> N/A	YES	NO	N/A
Is sediment in runoff from construction zones entering catch basins in the combined sewer system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual household hazardous waste collection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Autumn leaf collection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lawn clippings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Christmas tree pickup	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roadkill deer composting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fertilizer and pesticide management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enforcement of litter laws	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public education programs on composting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS.</b> (Attach extra sheet if necessary)</p> <p>The Buffalo Sewer Authority under MS4 Permit #NYR20A461 is regulated as a non-traditional MS4. As such those projects which involve the disturbance of one acre or more of soil and which discharge to sewers that drain directly to the waters of the United States rather than the Bird Island STP are subject to NYSDEC SPDES General Permit for Construction Activity Permit No. GP-0-15-002 (GP-0-20-001 for projects submitted on or after January 20, 2020). This includes routine inspection of construction sites for compliance with the permit. For those sites with 0.25-1.0 acre of soil disturbance, a sediment and erosion control plan is required, but inspections are only conducted upon receipt of a complaint.</p> <p>For areas of the Buffalo Sewer Authority's system which discharge upstream of or directly to the combined sewer system, construction projects are restricted in final peak flow which could be discharged to the sewer, thereby reducing the peak flow discharging through the CSOs. In addition to the post-construction flow standards, for sites with 0.25 or more acres of soil disturbance a sediment and erosion control plan is created. For those sites of 1 acre or more, weekly inspections by the owner/operator are required and the Buffalo Sewer Authority verifies these inspections on a routine basis. It is expected, however that sediment is still entering the system through smaller sites and between inspections.</p> <p>Regarding road kill deer, the City of Buffalo has not traditionally had an issue with road kill deer. When smaller road kill animals are reported, the Buffalo Animal shelter transports the carcasses to the Erie County SPCA for incineration. Due to the health risks associated with a large decaying animal in a high density population center, it is expected that a road kill deer would be disposed of promptly.</p>			



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**PART III - CSO BEST MANAGEMENT PRACTICES**

13. Public Notification 6 NYCRR 750-1.12 (EPA NMC: Public Notification) <input type="checkbox"/> N/A	YES	NO	N/A
Have identification signs been installed and maintained at all CSO outfalls owned and operated by the permittee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all signs placed at or near the outfall?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the signs easily readable by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the signs a minimum size of 18" by 24"?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the signs have white letters on a green background?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do all the signs contain the following information:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPDES permit number	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfall number	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permittee name, contact name and phone number at business office or NYSDEC Division of Water regional contact address and phone number	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For waters that are Class B or higher, is a public notification program implemented to inform citizens of the location and occurrence of CSO events?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does this program include a mechanism (public media broadcast, standing beach advisories, newspaper notice, etc) to alert potential users of the receiving waters affected by CSOs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does this program include a system to determine the nature and duration of conditions that are potentially harmful to users of these receiving waters due to CSOs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were there any problems in the past year with missing or damaged signs? Describe below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there a written public notification plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the plan list all methods used to notify the public of CSO events?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the plan list outfalls where signs are posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS. (Attach extra sheet if necessary)</b>  The Buffalo Sewer Authority complies with the Sewage Pollution Right to Know Act through the use of NYAlerts.			

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**PART III - CSO BEST MANAGEMENT PRACTICES**

<b>14. Characterization and Monitoring (6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g)) (EPA NMC: Monitoring)</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
If required in the permit, has the combined sewer system been characterized to determine the frequency of overflows, and identify CSO impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was a baseline sampling program established as part of the LTCP development?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all outfalls monitored during discharge events for:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flow Volume:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Frequency:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duration:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If all outfalls are not monitored, explain how sufficient data is obtained to document the success of the BMPs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
List locations of rain gauges or the source of data, below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a Post Construction Modeling and Monitoring plan been submitted to the Department for review and approval?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the Department approved the Post Construction Modeling and Monitoring plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has post construction monitoring and modeling of the receiving water begun? Attach results if this has not already been provided.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF THE EPA NINE****MINIMUM CONTROLS.** (Attach extra sheet if necessary)

Extensive characterization and metering were undertaken during the development of the Buffalo Sewer Authority's Combined Sewer Overflow Long Term Control Plan. As many of the BSA's CSO outfalls are submerged and/or have separate storm sewer connections downstream of regulators, CSO outfall monitoring is achieved through bimonthly inspection of regulators. A system-wide hydraulic model was developed using flow meters and level gages which is used to estimate CSO activation frequency and volume. A system-wide water quality model was developed which can predict pollutant impacts based on a "Modified Typical Year" which has been reviewed and approved by regulatory agencies. In calibrating the metering data to the "Modified Typical Year" rain gages were installed throughout the City of Buffalo. The post-construction monitoring plan was submitted before March 18, 2015 and a response to comments regarding the plan was submitted in December 2015. In accordance with this plan, recalibration of the model has been completed and was submitted to the NYSDEC and USEPA in 2019 for review, to date, Buffalo Sewer has not received comments regarding this recalibration, but has used this recalibrated model in this document to calculate CSO activations and discharge volumes.



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**PART III - CSO BEST MANAGEMENT PRACTICES**

15. Annual report 6 NYCRR 750-2.1(i) <input type="checkbox"/> N/A (EPA NMC: None; Required in LTCP permit)	YES	NO	N/A
Is this report being used to satisfy BMP 15, Annual report, and the BMP checklist?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is existing documentation of implementation of the BMPs included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is this annual report submitted by January 31 to the Regional Office and the Bureau of Water Permits (Albany)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attach any additional information necessary to document the implementation of BMPs in the past year or list plans for the upcoming year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, was implementation of the BMPs effective in controlling and minimizing CSO discharges?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If no, list any improvements needed that have not been described elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**PART III - CSO BEST MANAGEMENT PRACTICES**

**ADDITIONAL INFORMATION:**

**DESCRIBE BELOW IN DETAIL OTHER "MEASURE OF SUCCESS" ABOVE AND BEYOND THE REQUIREMENTS OF THE SPDES PERMIT. DESCRIBE HOW ADDITIONAL PROJECT(S) HAS HELPED TO MEET THE OBJECTIVES OF THE EPA NINE MINIMUM CONTROLS POLICY. (Attach extra sheet if necessary)**



PERMITTEE NAME: \_\_\_\_\_

SPDES PERMIT No.: NY- \_\_\_\_\_

**PART III - CSO BEST MANAGEMENT PRACTICES**

**SECTION D: For Multiple Permittees Only**

Permittee Name	SPDES Permit Name	SPDES Permit No

**PART III - CSO BEST MANAGEMENT PRACTICES****SECTION E: GLOSSARY/ACCRONYMS**

For the purposes of this annual report, the following terms and acronyms are described below:

**Baseline:** Conditions before the development and/or implementation of CSO BMPs and/or LTCP.

**Best Management Practice (BMP):** Permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. May include schedule of activities, prohibition of practices, maintenance procedure, or other management practice. BMPs may include, but are not limited to, treatment requirements, operating procedures, or practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage.

**Bypass:** A discharge of wastewater, stormwater, or combination of both, around a treatment unit designed for the removal of pollutants.

**Catch Basin:** A chamber usually built at the curbline of a street, which admits surface water for discharge into a storm drain

**Collection System:** A wastewater collection system which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and stormwater through a single pipe to a publicly owned treatment works for treatment prior to discharge to surface waters.

**Combined Sewer:** A sewer designed to carry wastewater and stormwater runoff.

**Combined Sewer Overflows (CSO):** A discharge of untreated wastewater from a combined sewer system at a point prior to the headworks of a publicly owned treatment works. CSOs generally occur during wet weather (rainfall or snowmelt). During periods of wet weather, these systems become overloaded, bypass treatment works, and discharge directly to receiving waters.

**Combined Sewer System (CSS):** A wastewater collection system that conveys sanitary wastewaters and storm water through a single pipe to a publicly owned treatment works for treatment prior to discharge to surface waters.

**Demonstrative Regulatory Approach:** Control approach where a permittee develops and implement an LTCP that meets the state water quality standards. A permittee could develop an LTCP that would provide for attainment of water quality standards, or it could use a total maximum daily load (TMDL) to *demonstrate* that water quality standards can be attained through a combination of CSO controls and other controls.

**EPA:** Environmental Protection Agency

**EQ Tank:** Equalization Tank often used to smooth hydraulic peaks to a POTW or WWTP.

**Fats Oil & Grease (FOG)**

**Geographic Information System (GIS)** is a computer-based tool for mapping and analyzing features in the environment. GIS support a wide range of activities including water quality modeling, watershed planning, and wetlands permitting and mitigation.

**GI:** Green" Infrastructure

**Infiltration/Inflow (I/I):** Rainwater, snowmelt, or groundwater flowing into separate sanitary or combined sewers, typically introduced via connected roof downspouts and/or building footing drains or infiltrating into the pipe through cracks in the pipe walls or joints.

**This Period:** Period covering the last 12 months from January to December

**Last Period:** Activities covering the 12 calendar months prior to the end of the current period



**PART III - CSO BEST MANAGEMENT PRACTICES**

**Long Term Control Plan (LTCP):** An engineering document that characterizes and assesses CSO discharge to a receiving waterbody. The goal of the Plan is to comply with the water quality standards of the receiving waterbody.

**Million Gallons per Day (MGD)** is a unit of flow commonly used for wastewater discharges. One mgd is equivalent to 1.547 cubic feet per second.

**Multiple Permittees** here is described as when a group of permittees (e.g. Albany Pool) is responsible to develop a single LTCP or when a single LTCP is required for multiple SPDES permit under a single permittee (e.g. NYC).

**Nine Minimum Controls (NMC)** provide information on nine minimum technology-based controls that permittees are expected to use to address CSO problems, without extensive engineering studies or significant construction costs, before long-term measures are taken.

**NYSDEC:** New State Department of Environmental Conservation (interchangeably uses as DEC)

**Publicly Owned Treatment Works (POTW):** Also commonly referred to as "treatment facility, WWTP (Wastewater Treatment Plant)

**SPDES Permit:** State Pollutant Discharge Elimination System Permit. A permit issued by DEC, authorized under the federal Clean Water Act, to discharge treated wastewater to waters of the United States.

**Overflow Events:** An event starts once an overflow starts from an outfall, and ends once the overflow stops and the pumpback to treatment facility have ended.

**Presumptive Approach:** The presumption approach is based on the assumption that an LTCP that meets certain minimum defined performance criteria. The "presumption approach," under which achievement of certain performance criteria (i.e., 4-6 untreated overflow events or 85 percent by volume capture) would be presumed to provide an adequate level of control to attain water quality standards.

**Raw Sewage:** Untreated sanitary sewage.

**Sanitary Sewer Overflow (SSO)** is an untreated or partially treated sewage discharge from the sanitary sewer collection system.

**Separate Sewer (SS):** A pipe or conduit intended to convey only sanitary sewage to a wastewater treatment facility.

**SPDES:** State Pollutant Discharge Elimination System

**Sewer System:** A public or privately owned wastewater collection facility designed and used to convey or treat sanitary sewage or sanitary sewage and storm water. Sewer system does not include an on-site wastewater treatment system serving one residential unit or duplex.

**Supervisory Control and Data Acquisition (SCADA)** is a complex computer system that provides automatic control of stormwater storage and overflows at various locations within the sewer system.

**Volume Discharged:** Total discharge volume for the event (in millions of gallons) from each CSO outfall within this reporting period.

**Volume Captured:** Total discharge volume for the event (in millions of gallons) that were either captured via an offline treatment facility before discharge or diverted to the WWTP for treatment.

**WWOP:** Wet Weather Operating Plan

**Water Quality Standards (WQS)** are regulations that establish the uses for which surface waters of the state are protected and include numeric and narrative criteria to protect those uses.