

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.

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Part II - CSO LTCP Control Information

CSO Facility:Bird Island Sewage Treatment Plant

Flow:

и: 180.00 мgd

SECTION A: CSO LTCP GENERAL INFORMATION

LTCP Development/Implementation:

Check all that apply: Describe other controls currently being used or planned. Also describe how the objectives of the CSO Control Policy have been met. In Development In 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.			
In Development 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.	Check all that apply:		Describe other controls currently being used or planned. Also describe how the objectives of the CSO Control Policy have been met.
Submitted	In Development		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		
Approved 🖌	Approved	\checkmark	
In Progress	In Progress	\checkmark	
Completed	Completed		
Not Required	Not Required		

CSO Controls:

Check all that apply:		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
Source Controls	\checkmark	The Buffalo Sewer Authority's Long Term Control Plan was approved on March 18, 2014 and
Collection System Controls	\checkmark	relief sewer, in-line storage facilities, CSO in-line storage facilities, upgrades to the existing
Storage Technologies	\checkmark	projects such as removal of impervious surfaces, permeable pavement, and bio-retention
Treatment Technologies	\checkmark	
Floatable Controls	\checkmark	
Disinfection Type:		

Post-Construction Compliance Monitoring (PCCM) Program:

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

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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

NYS DEPARMENT OF ENVIRONENTAL CONSERVATION

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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

NYS DEPARMENT OF ENVIRONENTAL CONSERVATION

DOW CSO Report 1.1 (10/21/14)

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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.)
064	42.8517	-78.8683	Buffalo River/C	7	Weir
065	42.8558	-78.8225	Buffalo River/C	9	Weir
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DOW CSO Report 1.1 (10/21/14)

Permittee Name: Buffalo Sewer Authority

Part II - CSO LTCP Control Information

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

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	No. of overflo the previo	ow events in ous year	Total An Volume Disc	Total Annual CSO /olume Discharged (MG)		Total Annual Volume Captured or Diverted to POTW (MG) Assuming a Baseline Condition of 0.0 MG) Outfalls	Indicate Type of Overflow Measurements (e.g. metered, estimated or modeled). If other, please describe
CSO Outfall	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	
.003	27	5	4.5	1.46	0	3.0	1	1	Flow volumes and event frequencies in this table
004	8	7	16.2	4.82	0	11.4	1	1	represent the predicted combined sewer overflows
005	4	0	0.1	0	0	0.1	1	1	only (excluding stormwater and stream inflows).
006	65	14	189.5	21.64	0	167.9	1	1	Baseline conditions were modeled utilizing the 2014
007*	0	1	0	0.14	0	-0.1	1	1	combined system model from the approved Long
008	44	0	8.2	0	0	8.2	1	1	Term Control Plan using Modified 1993 Typical Year
009*	0	0	0	0	0	0.0	1	1	Precipitation.
010	44	15	11.8	7.16	0	4.6	1	~1	Current conditions reliect As-Built Data for projects
011	41	34	132.3	173.34	0	-41.0	1	1	Administrative Order and the 2019 undated
012	47	35	71.2	54.66	0	16.5	1	1	combined system model which was submitted for
013	14	4	13.6	4.13	0	9.5	1	1	review by NYSDEC on January 8, 2019 with
014	17	8	26.2	13.18	0	13.0	1	1	precipitation values based on the annual precipitation
015	12	0	5.7	0	0	5.7	1	1	at the NOAA station at the Buffalo Niagara
016	4	0	0.0	0	0	0.0	1	1	International Airport.
017	61	20	90.3	97.71	0	-7.4	1	1	Because two different precipitation data sets and
022	85	6	39.8	1.45	0	38.4	1	1	models are being used, a true comparison of data is
023*	0	1	0	0.17	0	-0.2	1	1	not possible.
025	11	5	1.4	1.52	0	-0.1	1	1	
026	75	8	142.7	56.87	0	85.8	1	1	
027	38	8	19.7	22.65	0	-3.0	1	1	
028	73	37	44.4	16.77	0	27.6	1	1	
029	0	7	0	6.02	0	-6.0	1	1	
031*	0	0	0	0	0	0.0	1	1	
032	0	0	0	0	0	0.0	1	1	
033	8	18	35.9	65.68	0	-29.8	1	1	
035	22	0	4.8	0	0	4.8	1	1	
037	15	8	21.2	10.36	0	10.8	1	1	
038*	0	1	0	0.18	0	-0.2	1	1	

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Permittee Name: Buffalo Sewer Authority

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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

	No. of overflo the previo	ow events in ous year	Total An Volume Disc	nual CSO :harged (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
CSO Outfall	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	Baseline**	Current***	
039	2	0	0	0	0	0.0	1	1	Flow volumes and event frequencies in this table
040*	0	0	0	0	0	0.0	1	1	represent the predicted combined sewer overflows
042*	0	0	0	0	0	0.0	1	1	only (excluding stormwater and stream inflows).
044	15	1	6.5	0.71	0	5.8	1	1	Baseline conditions were modeled utilizing the 2014
046	9	0	1.1	0	0	1.1	1	1	combined system model from the approved Long
047	47	4	10.4	1.22	0	9.2	1	1	Provinitation
048	14	0	1.5	0	0	1.5	1	1	Current conditions reflect As Built Data for projects
049	0	0	0	0	. 0	0.0	1	1	completed to date for conformance with the
050	21	6	4.1	1.59	0	2.5	1	1	Administrative Order and the 2019 undated
051	19	0	3.7	0	0	3.7	1	1	combined system model which was submitted for
052	12	0	13.6	0	0	13.6	1	1	review by NYSDEC on January 8, 2019 with
053	65	39	275.0	266.58	0	8.4	1	1	precipitation values based on the annual precipitation
054	4	0	0.1	0	0	0.1	1	1	at the NOAA station at the Buffalo Niagara
055	40	30	617.8	498.2	0	119.6	1	1	International Airport.
056	5	0	0	0	0	0.0	1	1	Because two different precipitation data sets and
057	11	0	0	0	0	0.3	1	. 1	models are being used, a true comparison of data is
058	6	0	0	0	0	0.0	1	1	not possible.
059	17	2	5	0.42	0	4.7	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	0.3	0	1.2	1	1	
064	56	7	26.2	7.29	0	18.9	1	1]
066	16	5	2.5	4.21	0	-1.7	1	1	
	1145	338	1,886	1,340	0	545.4	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

*** 2020 System Conditions with 2020 Precipitation Data as Reported at the NOAA station located at the Buffalo Niagara International Airport.

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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	338
Average annual CSO volume discharged from the permittee owned system (MG)	1886	486.3	1340
Population served by the permittee's owned system	292,648	261,310	254,787
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. The 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 General Manager Title:		Phone: (716)851-4664
Signature:	Date Signed: 1/29/2021	Email:omcfo	y@buffalosewer.org

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?	\checkmark		
Does the program include procedures for ALL outfalls in the permit?		\checkmark	
Does the program include procedures for ALL regulators in the permit?	\checkmark		
Are inspections conducted at least as frequently as required in the permit (weekly or monthly)?	\checkmark		
Are inspections conducted during dry and wet weather?	\checkmark		
Do the inspection reports indicate visual inspection, any observed flows, incidence of rain or snowmelt, condition of equipment, and any work required?	\checkmark		
Are inspection reports submitted to the DEC regional office with the monthly operating reports?	\checkmark		
Is the written program sufficiently detailed? Indicate which of the following additional components are included in the plan.	\checkmark		
Pump Stations	\checkmark		
Sewer cleaning	\checkmark		
Sewer Manholes and Catch Basins	\checkmark		
Outfalls	\checkmark		
CSO Controls	\checkmark		
Are there inter-municipal agreements which require inspection and maintenance?	\checkmark		
Are any changes planned in the upcoming year for the agreements to make them more effective?		\checkmark	
Is the collection system mapped using GIS?	\checkmark		
Entire system, including manholes and catch basins?	\checkmark		
In the past year, was significant mapping progress accomplished?	\checkmark		
In the upcoming year, is GIS mapping planned?		\checkmark	
Is the collection system monitored using a SCADA system?	\checkmark		
In the past year, was significant progress accomplished in installing or expanding monitoring with a SCADA system?	\checkmark		
In the upcoming year, is installation of a SCADA system planned or being expanded?	\checkmark		
Does the municipality have an asset management plan that includes the collection system?	\checkmark		
Are funds available to carry out the BMP requirements?	\checkmark		
Are any major equipment purchases planned or expected in the next five years related to the BMP requirements? If yes, describe below	\checkmark		
Is the pump inventory, including spare parts, adequate for the upcoming year?	\checkmark		
Is sufficient staff training available?	\checkmark		

PART III - CSO BEST MANAGEMENT PRACTICES

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Is funding for training adequate and available?	\checkmark						
	YES	NO	N/A				
Is sufficient staff training available?	\checkmark						
Is funding for training adequate and available?	\checkmark						
Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below	\checkmark						
Fewer events	\checkmark						
Less volume	\checkmark						
Reduction in floatables, settleable solids or oil and grease discharged	\checkmark						
Reduction in industrial pollutants (chemicals)	\checkmark						
Improvement in water quality of receiving waterbody	\checkmark						
In the past year, was the inspection and maintenance program mostly:							
Reactive (responding to problems)		\checkmark					
Proactive (focusing on preventative maintenance to avoid problems)?	\checkmark						
If the program is mostly reactive, describe below any plans to shift the emphasis to prevention			\checkmark				
 MINIMUM CONTROLS. (Attach extra sheet if necessary) 2020 Improvements: 1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance 2. Cleaning of East Ferry Trunk was completed; 3. Completion of project to repair/replace sewers with utility conflicts is concluded; 4. Integrated of the North Bailey and Hertel-Deer RTCs into the Ovation; 5. Concluded repairs of Albany Street outfall pipe; 6. The Northland Avenue green infrastructure projects have been completed 7. Construction of Niagara Street Phase 3 progressed; 8. Construction of Niagara Street Phase 4 A commenced; 9. 41 Demolitions were completed and 10. The hot spot list was refined. Planned 2021 Improvements 1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance 2. Finish construction of Mill Race and Broadway at Oak RTC; 4. Sensor deployment in collection system as part of the real time decision support system; 5. Start construction of Albany Street Overflow Sewer Improvement Project; 6. Create updated receiver cleaning routes; 7. Finish construction of Niagara Street Phase 3 and continue construction of Niagara Street Phase 4A 	e were o e will be	conduc e cond	cted; ucted;				
Major equipment purchases: In 2020, a trailer, lawn mower, and hand tools were all purchased for use by the Green Infrastructure Maintenance Group; a combination flusher/vacuum truck, an SUV, 2 pickup trucks and 3 power tool kits were purchased. In 2021, the purchase of 2 dump trucks, a crew truck, and a camera truck is planned.							

PART III - CSO BEST MANAGEMENT PRACTICES

2. Maximum Use of Collection System for Storage 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?	\checkmark		
Has the hydraulic capacity of the system been evaluated?	\checkmark		
Is there a continuous program of flushing and cleaning to prevent deposition of solids?	\checkmark		
Have regulators and weirs been adjusted to maximize storage without causing service backups?	\checkmark		
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	\checkmark		
Tidegates maintenance/repairs/replacement	\checkmark		
FOG program	\checkmark		
Removal of small systems bottlenecks	\checkmark		
Sewer cleaning and sediment removal	\checkmark		
Removal of flow obstructions	\checkmark		
Regulator or weir adjustment - list locations below	\checkmark		
In-line storage: Inflatable dams or sluice gates	\checkmark		
Wet Weather Operating Plan	\checkmark		
Do the municipalities within the combined sewer system have a water conservation program for	\checkmark		\square
In the uncoming year are there any studies work or projects planned (other than routine activities) to			
improve use of collection system for storage? Describe below.			
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) 2020 Improvements:			
1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance	e were (conduc	ted;
2. Cleaning of East Ferry Trunk was completed;			
3. Completion of project to repair/replace sewers with utility conflicts is concluded;			
4. Integrated of the North Balley and Hertel-Deer RTUs into the Ovation;			
6. The Northland Avenue green infrastructure projects have been completed			
7. Construction of Niagara Street Phase 3 progressed:			
8. Construction of Niagara Street Phase 4 A commenced;			
9. 41 Demolitions were completed and			
10. The hot spot list was refined.			
Planned 2021 Improvements			
1. Continued proactive and reactive sewer cleaning and televising and green infrastructure maintenance	e will be	condu	icted;
2. Finish construction of Smith at Eagle RTC and Babcock Pumping Station RTC;			
4 Sensor deployment in collection system as part of the real time decision support system.			
5. Start construction of Albany Street Overflow Sewer Improvement Project:			
6. Create updated receiver cleaning routes;			
7. Finish construction of Niagara Street Phase 3 and continue construction of Niagara Street Phase 4A;			
8. Finalization of sewer maintenance Core Competency Gap Analysis;			
9. Continued design of the Northern Relief Interceptor Tunnel will be conducted;			
10. Commencement of design of Underflow Capacity Upsizing and next phase RTC projects will be con	ducted.		

PART III - CSO	Best Management	PRACTICES
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3. Industrial Pretreatment 6 NYCRR 750-2.7(f) and 2.9(a)(4) (EPA NMC: Review and Modify Pretreatment Requirements)	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?	\checkmark		
Is there an approved pretreatment or mini-pretreatment program?	\checkmark		
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			\checkmark
Is there an inventory of industrial dischargers? Is the following information included?	\checkmark		
Volume of discharge?	\checkmark		
Pollutants in discharge?	\checkmark		
Are any pollutants classified as "persistent toxics" or bioaccumulative?		\checkmark	
Is the location included on the collection system map?	\checkmark		
Are there any industrial discharges that could reach CSO outfalls?	\checkmark		
If yes, have any industrial dischargers been identified as contributing to a water quality impairment?		\checkmark	
If yes, does the industry have a holding tank or EQ tank to store wastewater prior to discharge to the collection system?		\checkmark	
If yes, does the industry have a written plan to store or hold discharges during rain events?		\checkmark	
If yes, has the industry been asked to prepare a written plan to store or hold discharges?		\checkmark	
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.	\checkmark		
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.	\checkmark		

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)

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.

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)	VEC	NO	
N/A	YES	NU	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?	\checkmark		
In the past year, was the secondary treatment works able to treat the flows specified in the permit for all wet weather flows?	\checkmark		
If the answer to either of the above questions was No, has a plan and schedule to accomplish this been submitted to the Department?			\checkmark
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.	\checkmark		
Are any physical modifications planned for the upcoming year?	\checkmark		
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		\checkmark	
In the past year, have any new problem areas been identified that restrict flow to the plant? List locations below		\checkmark	
In the upcoming year, are there plans to address hydraulic restrictions or bottlenecks?	\checkmark		
Pipe replacement		\checkmark	
Construction of relief sewer		\checkmark	
Construction of overflow tank		\checkmark	
Pump station improvements	\checkmark		
Pump replacement		\checkmark	
Weir adjustment		\checkmark	
Smoke testing, dye testing to identify illicit connections		\checkmark	
Other:	\checkmark		
DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF MINIMUM CONTROLS. (Attach extra sheet if necessary) 2020 Improvements: 1. Continued proactive and reactive sewer cleaning and televising were conducted; 2. Cleaning of East Ferry Trunk was completed; 3. Completion of project to repair/replace sewers with utility conflicts is concluded;	тне ЕРА	NINE	
4. Integrated of the North Balley and Hertel-Deer KICs into the Ovation;			

- 5. Concluded repairs of Albany Street outfall pipe;
- 6. The hot spot list was refined.

Planned 2021 Improvements

- 1. Continued proactive and reactive sewer cleaning and televising will be conducted;
- 2. Finish construction of Smith at Eagle RTC and Babcock Pumping Station RTC;
- 3. Start construction of Mill Race and Broadway at Oak RTC;
- 4. Sensor deployment in collection system as part of the real time decision support system;
- 5. Start construction of Albany Street Overflow Sewer Improvement Project;
- 6. Create updated receiver cleaning routes;
- 7. Continued design of the Northern Relief Interceptor Tunnel will be conducted;
- 8. Commencement of design of Underflow Capacity Upsizing and next phase RTC projects will be conducted.

PART III - CSO BEST MANAGEMENT PRACTICES

5. Wet Weather Operating Plan (WWOP) 6 NYCRR 750-2.8(a) (EPA NMC: None)	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?	\checkmark		
In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service?		\checkmark	
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.	\checkmark		
Has the WWOP been submitted to the Regional Office and Bureau of Water Permits (Albany) for review and approval?	\checkmark		
If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures?	\checkmark		
If yes, has the revised plan been submitted to the Regional Office for approval?		\checkmark	
Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?	\checkmark		
In the upcoming year, are changes to the plan expected?		\checkmark	

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.

Buffalo Sewer is in the process of finalizing an engineering contract to prepare construction contract documents for upgrades to the Primary Treatment System in conformance with the LTCP. In addition, Buffalo Sewer is working to rebid the Secondary System Upgrade Preparation work.

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)	YES	NO	N/A	
In the past year, were there any dry weather overflows? If no, skip to BMP 7.		\checkmark		
Were all dry weather overflows reported in accordance with 6 NYCRR Part 750-2.7 (incident reporting)?			\checkmark	
If dry weather overflows occurred, indicate which procedures or equipment have been improved or replaced				
Schedule for routine inspections				
Management, operation and maintenance program				
Modification of existing or issuance of new inter-municipal agreements				
FOG program				
Removal of illicit connections				
I/I Control program				
Leaky tidegates				
Adjustment and/or repair of regulators				
Pumps				
Auxiliary power				
Elimination of hydraulic bottlenecks				
Adequate dry weather flow capacity at the treatment plant				
Other, list below				
Has additional staff training been provided?				
Has the likelihood of future dry weather overflows been eliminated? If not, describe additional information below.				
DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF MINIMUM CONTROLS. (Attach extra sheet if necessary)	THE EPA	NINE		

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PART III - CSC	BEST MANAGEMENT	PRACTICES
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7. Control of Floatables and Settleable Solids 6 NYCRR 750-2.8(a)(4) (EPA NMC: Control of Solid and Floatable Materials in CSOs)	YES	NO	N/A
In the past year, were did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?	\checkmark		
Have BMPs been implemented to eliminate or minimize the discharge of floatables and settleable solids?	\checkmark		
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.	\checkmark		
Floatables quantification	\checkmark		
Booming and skimming of open waters	\checkmark		
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)	\checkmark		
In-line netting		\checkmark	
Screens	\checkmark		
Catch basin hoods	\checkmark		
Other:	\checkmark		
Are any changes needed or planned for the upcoming year? Describe additional information below.		\checkmark	

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)

Floatables capture by the Hamburg Drain Floatable Control Facility are quantified prior to disposal. Hoods have long been installed on catch basins and receivers within the Buffalo Sewer Authority's combined sewer system and are routinely replaced.

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.

PART III - CSO BEST MANAGEMENT PRACTICE	S
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8. Combined Sewer System Replacement 6 NYCRR 750-2.10(i) (EPA NMC: None) 🗌 N/A	YES	NO	N/A
In the past year, were any combined sewers designed or constructed that were not approved by DEC?		\checkmark	
If yes, was the combined sewer replaced by separate sanitary and storm sewers to the greatest extent possible?			\checkmark
If yes, were the separate sanitary and storm sewers designed and constructed simultaneously but without interconnections to the maximum extent practicable?			\checkmark
Is the combined portion of the collection system completely identified on maps or GIS?	\checkmark		
Are there any plans or current projects to separate combined sewers into sanitary and storm sewers?		\checkmark	
Is there an approved engineering plan for this project?			\checkmark
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.			\checkmark
Overall, has the implementation of this BMP resulted in fewer overflow events and/or less volume discharged? Describe below.			\checkmark
MINIMUM CONTROLS. (Attach extra sheet if necessary)			

BMP 8 Combined Sewer System Replacement

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PART III -	CSO BEST	MANAGEMENT PRACTICES	
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9. Combined Sewer Extension 6 NYCRR 750-2.10(i) (EPA NMC: None) N/A	YES	NO	N/A
In the past year, were any combined sewers extended not using separate sewers?		\checkmark	
Were sanitary and storm sewers extensions designed and constructed simultaneously but without interconnections?		\checkmark	
Were any new sources of stormwater added to a separate sewer anywhere in the collection system?		\checkmark	
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?	\checkmark		
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?	\checkmark		
Has a recent combined sewer extension resulted in increased discharge from a CSO?		\checkmark	
Has a recent combined sewer extension resulted in increased flow to the POTW? Describe any CSO impacts below.		\checkmark	
Is any development planned upstream of a combined sewer?	\checkmark		
If yes, has a sewer extension plan been submitted for review and approval?	\checkmark		
If the approval contained a flow credit requiring removal of I/I, what was the requirement or ratio?			\checkmark
Does the plan include any flow retention structures?	\checkmark		
DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT. AND THE OBJECTIVES OF TH	HE 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.

10. Connection Prohibitions 6 NYCRR750-2.9(a)(5) (EPA NMC: None) 🔳 N/A	YES	NO	N/A
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?			\checkmark
Are new connections prohibited by the DEC? If no, skip to BMP 11.		\checkmark	
Is this due to basement backups?			
Is this due to surcharging manholes?			
In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading? Describe below.			
DESCRIBE BELOW HOW THIS BMP IMPLEMENTATION HAS MET THE REQUIREMENTS OF THE SPDES PERMIT, AND THE OBJECTIVES OF T MINIMUM CONTROLS. (Attach extra sheet if necessary)	THE EPA	NINE	

PART III - CSO BEST MANAGEMENT PRACTICES

PART III - CSO BEST MANAGEMENT PRACTICES

11. Septage and Hauled Waste 6 NYCRR750-2.7(f) and 2.8(a)(1) (EPA NMC: None) 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?		\checkmark	
Does the facility have authorization from DEC to accept hauled waste or septage at a location other than the POTW? Describe below.		\checkmark	
Are any of these locations upstream of a CSO?			\checkmark
Are there any agreements with haulers to accept waste at a location other than at the POTW?			\checkmark
In the past year, was any hauled waste or septage accepted at a location other than at the POTW?			\checkmark
What was the total volume received at locations other than the POTW?			\checkmark
Is there a dedicated location to discharge septage at the POTW?	\checkmark		
Are there restrictions on when the plant accepts hauled waste or septage?	\checkmark		
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?		\checkmark	

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)

Hours of acceptance of Septage, Leachate, sludge and grease: Monday- Friday 8:00 am to 5:30 pm. Saturday 7:30 am to 3:30 pm. Amherst Cake 24 hours per day/7 days a week.

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12. Control of Run-off 6 NYCRR750- 2.1(e) (EPA NMC: None) N/A	YES	NO	N/A
Is sediment in runoff from construction zones entering catch basins in the combined sewer system?	\checkmark		
Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?	\checkmark		
Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?	\checkmark		
Annual household hazardous waste collection	\checkmark		
Autumn leaf collection	\checkmark		
Lawn clippings	\checkmark		
Christmas tree pickup	\checkmark		
Roadkill deer composting			\checkmark
Fertilizer and pesticide management	\checkmark		
Enforcement of litter laws	\checkmark		
Public education programs on composting	\checkmark		
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.		\checkmark	

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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 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--2. 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.

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. 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.

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PART III - CSO BEST MANAGEMENT PRACTICES			
13. Public Notification 6 NYCRR 750-1.12 (EPA NMC: Public Notification) 🗌 N/A	YES	NO	N/A
Have identification signs been installed and maintained at all CSO outfalls owned and operated by the permittee?	\checkmark		
Are all signs placed at or near the outfall?	\checkmark		
Are the signs easily readable by the public?	\checkmark		
Are the signs a minimum size of 18" by 24"?	\checkmark		
Do the signs have white letters on a green background?	\checkmark		
Do all the signs contain the following information:	\checkmark		
SPDES permit number	\checkmark		
Outfall number	\checkmark		
Permittee name, contact name and phone number at business office or NYSDEC Division of Water regional contact address and phone number	\checkmark		
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?	\checkmark		
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?	\checkmark		
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?	\checkmark		
Were there any problems in the past year with missing or damaged signs? Describe below.		\checkmark	
Is there a written public notification plan?		\checkmark	
Does the plan list all methods used to notify the public of CSO events?			\checkmark
Does the plan list outfalls where signs are posted?			\checkmark

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 Buffalo Sewer Authority complies with the Sewage Pollution Right to Know Act through the use of NYAlerts.

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

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 on March 17, 2015 and approved on March 1, 2016. In accordance with this plan, a recalibrated model was submitted to regulators for comment on January 8, 2019. Comments dated July 27, 2020 regarding the model were received during the summer of 2020. Final approval of the recalibrated model is anticipated during the spring of 2021.

Buffalo Sewer Authority

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PART III - CSO BEST MANAGEMENT PRACTICES

15. Annual report 6 NYCRR 750-2.1(i) 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?	\checkmark		
Is existing documentation of implementation of the BMPs included?	\checkmark		
Is this annual report submitted by January 31 to the Regional Office and the Bureau of Water Permits (Albany)?	\checkmark		
Attach any additional information necessary to document the implementation of BMPs in the past year or list plans for the upcoming year.			
Overall, was implementation of the BMPs effective in controlling and minimizing CSO discharges?	\checkmark		
If no, list any improvements needed that have not been described elsewhere			\checkmark

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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

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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.

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