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Combined Sewer Overflow (CSO) Annual Report

version 1.8

(Submission #: HPQ-JCHN-2F1GA, version 2)

Details

Submission Alias BSA CSO Report 2023
Originally Started By Kaitlin Walsh
Submitted 4/13/2023 (0 days ago) by Rosaleen B Nogle
Alternate Identifier NY0028410
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Status Deemed Complete

Form Input

Permit Information

SPDES Number
NY0028410

DEC Region
9

Permittee Name
Buffalo Sewer Authority

Facility Name
Bird Island Sewage Treatment Plant

Official Name
Oluwole A. McFoy

Official Title
General Manager

Official's Phone Number
7168514664

Official's Email Address
omcfoy@buffalosewer.org

CSO Program Manager Name
Rosaleen B. Nogle

CSO Program Manager Title
Principal Sanitary Engineer

CSO Program Manager Phone Number
7168514664

CSO Program Manager Email
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Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
52

Number of CSO Events Occurring in Reporting Year
191

Percentage of Collection System, owned by the permittee, that is combined (%)
97

Approximate length (mi) of combined sewers in permittee-owned system
844

Population served by the permittee-owned system
276,807

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
7

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
7

Number of Significant Industrial Users (SIU) connected to the CSS
52

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2014

What is the LTCP Approval Status?

Approved

What was/is the LTCP selected approach and/or criterion?

Presumptive (4-6 Events)

Is the LTCP Implementation completed?

No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.

LTCP includes weir raising, floatable control facility, relief tunnel, in-line, pumping station upgrades, off-line storage facilities & GI. For progress through 7/1/2022 see the 9/1/2022 Semi-Annual LTCP located at: <https://buffalosewer.org/about/transparency>. In 2022, Babcock PS RTC & Smith at Eagle RTC were substantially completed; the Primary System Upgrade engineering Report & preliminary design submitted to EPA & NYSDEC in October of 2022; BSA has not yet received comments for this design; site work has started on the Secondary System project. In 2022, BSA has been identifying and evaluating revised projects to meet the goals of the AO & will submit a draft of these projects, costs, and timeline to the regulators soon.

Post Construction Compliance Monitoring (PCCM)**What is the status of the PCCM Plan?**

Approved

What is the status of the PCCM Sampling Program?

Not Yet Required

Part II - CSO Outfall Information**CSO Outfall Information**

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measurment Method
003	42.9373	-78.9072	Black Rock Canal	C	11	Fixed Weir	None	6	5	8	0.11	7.51	8.34	Modeled
004	42.9261	-78.9055	Black Rock Canal	C	1	Fixed Weir	None	5	9	9	11.25	22.15	34.31	Modeled
005	42.9243	-78.8991	Black Rock Canal	C	2	Elevated Pipe	None	4	0	0	0.08	0.00	0	Modeled
006	42.9223	-78.8996	Black Rock Canal	C	7	Fixed Weir	None	65	35	17	198.9	47.47	61.83	Modeled
007	42.9222	-78.8997	Black Rock Canal	C	1	Fixed Weir	None	0	5	5	0	1.13	1.54	Modeled
008	42.9209	-78.9002	Black Rock Canal	C	1	Fixed Weir	None	39	0	0	6.11	0	0	Modeled
009	42.919	-78.901	Black Rock Canal	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
010	42.9174	-78.9013	Black Rock Canal	C	1	Fixed Weir	None	44	15	16	11.85	14.9	19.44	Modeled
011	42.9133	-78.9032	Niagara River	SA	1	Fixed Weir	None	41	31	28	134.3	230.6	408.32	Modeled
012	42.9132	-78.9017	Black Rock Canal	C	1	Fixed Weir	None	42	32	33	52.48	103.8	141.01	Modeled
013	42.889	-78.8935	Buffalo Harbor	C	1	Fixed Weir	None	7	7	8	6.75	16.23	14.61	Modeled
014	42.8846	-78.8888	Erie Basin Slip 3	C	2	Fixed Weir	None	4	9	13	4.19	45.58	79.97	Modeled
015	42.8828	-78.8849	Erie Basin Slip 2	C	2	Fixed Weir	None	12	1	0	6.14	0.67	0	Modeled
016	42.8813	-78.8841	Erie Basin Slip 1	C	2	Fixed Weir	None	0	0	0	0	0	0	Modeled
017	42.8769	-78.8796	Buffalo River	C	20	Elevated Pipe	Screening Only	49	21	25	71.26	233.2	377.98	Modeled
022	42.8724	-78.8737	Buffalo River	C	4	Fixed Weir	None	49	8	10	29.79	3.07	4.51	Modeled
023	42.8666	-78.868	Buffalo River	C	1	Fixed Weir	None	0	4	2	0	1.08	0.94	Modeled
025	42.8639	-78.8605	Buffalo River	C	1	Fixed Weir	None	11	6	8	1.44	5.23	7.79	Modeled
026	42.8631	-78.8508	Buffalo River	C	45	Fixed Weir	None	63	8	11	124.16	64.93	284.38	Modeled
027	42.8631	-78.8375	Buffalo River	C	1	Fixed Weir	None	36	11	20	31.67	90.42	243.36	Modeled
028	42.8603	-78.8325	Buffalo River	C	7	Fixed Weir	None	69	31	27	45.54	32.67	55.04	Modeled
029	42.8603	-78.8325	Buffalo River	C	3	Fixed Weir	None	0	8	9	0	11.04	20.05	Modeled
031	42.8599	-78.8244	Cazenovia Creek	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
032	42.8616	-78.826	Buffalo Harbor	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
033	42.8624	-78.8254	Buffalo River	C	5	Fixed Weir	None	9	19	21	37.77	147.4	288.37	Modeled
035	42.8502	-78.8087	Cazenovia Creek	B	2	Fixed Weir	None	0	1	1	0	0.21	0.12	Modeled
037	42.8521	-78.8112	Cazenovia Creek	C	1	Fixed Weir	None	13	9	10	23.3	24.72	45.11	Modeled
038	42.8526	-78.8111	Cazenovia Creek	C	3	Fixed Weir	None	0	4	1	0	1.1	0.51	Modeled

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measurment Method
039	42.8533	-78.8126	Cazenovia Creek	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
040	42.8539	-78.8126	Cazenovia Creek	C	1	Fixed Weir	None	0	2	1	0	0.58	0.64	Modeled
042	42.855	-78.8141	Cazenovia Creek	C	3	Elevated Pipe	None	0	2	1	0	0.55	0.38	Modeled
044	42.8573	-78.8183	Cazenovia Creek	C	4	Fixed Weir	None	7	4	4	2.32	7	7.16	Modeled
046	42.8586	-78.8203	Cazenovia Creek	C	1	Fixed Weir	None	1	1	1	1.31	0.51	0.29	Modeled
047	42.8594	-78.8226	Cazenovia Creek	C	5	Fixed Weir	None	44	6	7	8.65	6.37	8.53	Modeled
048	42.86	-78.8247	Cazenovia Creek	C	2	Fixed Weir	None	0	0	0	0	0	0	Modeled
049	42.8613	-78.8269	Buffalo River	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
050	42.8635	-78.8211	Buffalo River	C	1	Fixed Weir	None	14	8	7	3.17	5.75	7.1	Modeled
051	42.8631	-78.8108	Buffalo River	C	1	Fixed Weir	None	4	2	1	1.22	0.55	1.51	Modeled
052	42.8645	-78.8024	Buffalo River	C	2	Fixed Weir	None	10	2	2	10.87	0.54	5.19	Modeled
053	42.9237	-78.8569	Scajaquada Creek	B	42	Fixed Weir	None	65	35	31	268	481.1	688.27	Modeled
054	42.9521	-78.9098	Niagara River	SA	7	Fixed Weir	None	0	0	0	0	0	0	Modeled
055	42.945	-78.9088	Niagara River (Cornelius Creek)	SA	1	Fixed Weir	None	41	29	26	601.1	945.8	1535	Modeled
056	42.9348	-78.8761	Scajaquada Creek	B	2	Fixed Weir	None	5	0	0	0.04	0	0	Modeled
057	42.929	-78.8973	Scajaquada Creek	B	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
058	42.9303	-78.8959	Scajaquada Creek	B	3	Fixed Weir	None	0	1	1	0	0.14	0.24	Modeled
059	42.931	-78.8939	Scajaquada Creek	B	3	Fixed Weir	None	0	3	1	0	1.75	0.39	Modeled
060	42.9343	-78.8782	Scajaquada Creek	B	12	Fixed Weir	None	5	2	1	0.7	0.36	0.14	Modeled
061	42.921	-78.9002	Black Rock Canal	C	1	Fixed Weir	None	10	2	1	31.19	5.49	15.42	Modeled
062	42.9154	-78.9027	Black Rock Canal	C	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
063	42.9023	-78.9017	Black Rock Canal	C	1	Fixed Weir	None	13	4	1	0.63	0.75	0.39	Modeled
064	42.8665	-78.8678	Buffalo River	C	7	Fixed Weir	None	56	10	13	21.11	18.04	29.54	Modeled
066	42.865	-78.8021	Buffalo River	C	9	Fixed Weir	None	10	6	8	1.72	20.66	23.31	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
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CSO Outfall Explanation

BSA has no intent to close CSOs; they prevent flooding & double as MS4 outfalls. In 2022 approx. 1/2 of reported overflow vol. was from 22 Blizzard. Vol. and # of sites activated by storm is likely significantly over estimated due to uneven accumulation and buffered impact of snowmelt vs. rain. The model assumed >7" of rain in short time going to the CSS rather than 0-15 feet of snow. Much of the snow was compacted into piles, some of which drain to MS4 rather than CSS and which melt slowly.

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee

92

Baseline - Approximate length (mi) of combined sewers owned by the permittee

790

Baseline - Number of CSO Outfalls owned by the permittee

65

Baseline - Number of CSO Events

85

Baseline - Annual CSO Volume discharged (MGD)

1,886

Baseline - Population Served by the CSS

292,648

Baseline - Number of Satellite System Connections

7

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee

92

Future - Approximate length (mi) of combined sewers owned by the permittee

790

Future - Number of CSO Outfalls owned by the permittee

52

Future - Number of CSO Events

9

Future - Annual CSO Volume Discharged (MGD)

486

Future - Population Served by the CSS

261,310

Future - Number of Satellite System Connections

7

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.

Discharges to the Buffalo Sewer Authority's Combined Sewer System from satellite systems are restricted via inter-municipal agreements, these values were utilized in constructing the flow model:

- 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

Infrastructure specified in the inter-municipal agreements are operated and maintained by the POSS's (POSS's- separate sanitary sewer systems, as such they do not have CSOs. Reporting of SSO's within the POSS's is the responsibility of the respective POSS)

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.

*Design commenced: 1st phase Amherst Quarry Off-line storage project, Gates Circle RTC, Breckenridge & Niagara (CSO 010) RTC, & SPP 333/170A Off-line storage project

*Work commenced: Broadway @ Oak RTC & Mill Race RTC

*1st of 3 phases of No Feasible Alternative WWTF Improvement Project entered construction; 3 draft preliminary design reports for 2nd phase (Primary System Upgrades) were submitted for review & approval by NYSDEC & USEPA.

*Currently working to utilize the model to update our approach to achieving compliance with the presumptive approach standards as they exist within the current LTCP in cost-effective & affordable manners with a focus on achieving greatest water quality benefit in the timeliest way

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.

*BSA intends to have costs & proposed implementation schedule for projects affected by Recalibrated Hydraulic Model (10/6/2021) by Jan. 2023

*Construction of Mill Race RTC expected to continue

*Review, revisions & tentative approval of revised implementation schedule are expected

*The Broadway @ Oak RTC anticipated to begin operation

*Design expected to be completed for Primary System Upgrade project, Phase 1 Amherst Quarry RTC, Gates Circle RTC, Breckenridge & Niagara (CSO 010) RTC, & SPP 333/170A Off-line storage project

*Design of Schiller Park RTC & SPP Modifications, South Bailey RTC and modifications, & Phase 2 Amherst Quarry RTC expected to commence

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?

- 1- CSO Maintenance / Inspection
- 2- Maximize Use of the Collection System for Storage
- 3- Industrial Pretreatment
- 4- Maximize Flow to POTW
- 5- Wet Weather Operating Plan (WWOP)
- 6- Prohibition of Dry Weather Overflows
- 7- Control of Floatables and Settleable Solids
- 8- Combined Sewer System Replacement
- 9- Combined Sewer / Extension
- 10- Connection Prohibitions
- 11- Septage and Hauled Waste
- 12- Control of Runoff
- 13- Public Notification
- 14- Characterization and Monitoring

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)

(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?

Yes

What is the minimum frequency of dry-weather CSO inspections?

Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?

Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?

Yes

Are the inspection reports submitted to the DEC Regional Office?

Yes, with Monthly Operating Reports

Indicate which of the following additional components are included in the maintenance and inspection program:

- Pump Stations
- Sewer Pipes & Interceptors
- Sewer Manholes & Catch Basins
- CSO Outfalls
- CSO Controls (e.g. regulators, screening/storage/treatment facilities)

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?

Yes

IMA Listing - Please indicate the community name and year of last IMA update.

Community Name	Year of most recent IMA Update
Town of Cheektowaga	1996
Erie County Sewer District	1996
West Seneca Town Sewer Dist	1996
Village of Sloan	1998

Is the collection system mapped using GIS?

Yes, the entire system (including manholes & catch basins)

Is the collection system monitored using a SCADA system or other flow monitoring system?

Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?

Yes

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?

Yes

Does the municipality have an asset management program that includes the collection system?

Yes, in place

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.

Yes

In the past year, was the inspection and maintenance program mostly:

Reactive (responding to problems)?

Use the space below to provide a narrative description of the following:

- a) Lengths of sewer cleaned and inspected,
- b) Number of manholes and catch basins cleaned and inspected,
- c) Any repairs or replacements conducted in the CSS,

- a) 29,166' of sewer was cleaned and inspected through proactive outsourcing contracts in addition to work conducted by internal staffing utilizing a televising truck and three vacuum trucks
- b) 9,705 catch basins and 127 manholes cleaned and inspected
- c) There were 143 spot repairs, of the 143 spot repairs, 984' was replaced; 59 manholes & 1 catch basin rebuilt

We also are monitoring using web-based proprietary software (in addition to SCADA)

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).

Planned: vacuum truck, backhoe, 3 dump trucks contingent on supply chain issues

Changes 2022: SOP for operation of Amherst Quarry PS. 2023: SOP for operation of AQ PS based on system, not just well height to maximize use of CSS

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)

(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?

Yes

Has the hydraulic capacity of the collection system been evaluated?

Yes

When was the hydraulic capacity last evaluated?

2021

Have regulators and weirs ever been adjusted/modified to maximize storage?

Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.

Tidegate Maintenance/Repair/Replacement

Regulator or Weir Adjustment

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

2022:

* A Tidegate duckbill valve was installed at Smith St btw Prenatt and Elk (MH ID: 18903 -SPP084) to prevent backflow and reduce basement backups

* 5 more valves were ordered, but are on back-order

2023:

* 4 actuators have been ordered.

* The Smith at Perry RTC uses 2 actuators, 2 of the ordered actuators will replace these two current actuators, while 1 ordered actuator will serve as a backup for this RTC.

* The final actuator will serve as a backup for the Smith at Eagle RTC

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)

(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?

Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?

Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?

Yes

Does the pretreatment program consider CSOs in the calculation of local limits?

No

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?

Yes

Are there any industrial discharges that could reach CSO outfalls?

Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?

No

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?

Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.

Yes

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

EQ tanks - ie. Tesla [has own treatment facility on site]

Upon review of existing Industrial User's discharge permits no BCCs as listed in TOGS 1.3.8 are currently permitted for discharge to Buffalo Sewer's system upstream of CSOs.

A revised "Technical Review of Local Mass Based Limits Industrial Pretreatment Report" prepared in accordance with USEPA's "Local Limits Development Guidance Manual" was submitted in October of 2022 to USEPA for review and approval.

Once approved, the significantly reduced limits specified therein will be used in all future BPDES permit applications including renewals.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)

(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?

450.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?

180.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?

300.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?

450.00

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?

No

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?

No

If the minimum flows were not achieved for all wet-weather events in the reporting year, has a plan to accomplish this been developed and submitted to the Department?

Yes, developed & submitted

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.

Yes

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? If yes, list below in the narrative box

Yes

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.

No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,

b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,

c) any known problem areas that restrict flow to the WWTP, and

d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) RTCs:

*Smith & Eagle has been adjusted to maximize flows to the facility

*Babcock Pump station RTC been adjusted to maximize flows to the facility

*Broadway & Oak under construction

b) The hydraulic capacity of the Amherst Quarry and pumping station require additional study to maximize storage to eliminate downstream overflows.

c) During 2022, various pumps were out of service to ensure continuing long-term operation of our facility. Specifically, RWW pumps 1 and 2 and SWW pumps 1, 2, and 3 were out of service for rehabilitation throughout 2022. RWW pumps 3, 4, 5, and 6 were also out of service for maintenance purposes as recorded in the monthly DMRs.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)

(EPA NMC: None)

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

Yes

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.

Yes

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?

No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.

No

When was the WWOP last updated?

2007

When was the WWOP last submitted and approved by NYSDEC?

2007

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The Wet Weather Operating Plan is being re-evaluated to incorporate insights from globalized real-time control sensors and to reduce energy use and pump degradation through maintaining higher dry weather flows and begin higher pumping rates before flows reach the WWTF in anticipation of flows.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
Yes

Were all dry weather overflows reported via NY-Alert, in accordance with 6 NYCRR 750-2.7?
Yes

Did dry weather overflows lead to improvement of procedures or equipment?
Yes

Has the likelihood of future dry weather overflows been eliminated? If not, describe why below in the narrative box.
Yes

Use the space below to provide a narrative description of the both the causes of any dry weather events that occurred in the reporting year and resulting changes or improvements that were made to procedures or equipment (e.g. routine inspection schedule, OMP, inter-municipal agreements, FOG program, removal of illicit connections, I/I Control program, leaky tidedgates, adjustment and/or repair of regulators, upgraded auxiliary power, elimination of hydraulic bottlenecks, etc.).

On December 13, 2022 at 10:10 am all available Raw Wastewater pumps were shut off and influent wet wells isolated to facilitate necessary mechanical repairs and cleaning of the West Influent Trash Rack. This event was anticipated, approved and status communicated to NYSDEC. The following discharges were through outfall 01A: December 13, 2022 from 10:18am-10:25am; December 13, 2022 from 11:40 - 15:18 on December 15th 2022; December 15, 2022 from 19:00 -21.45; December 16, 2022 from 01:48-03:50.

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
Yes

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Screens
Booming & Skimming of Open Waters

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

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

Streets are swept by City of Buffalo DPW.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
No

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Buffalo Sewer does not currently have any plans for sewer separation.

Buffalo Sewer has ongoing cleaning and televising. Any cross-connections identified during this work will be flagged and dealt with.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
No

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Proposed sanitary sewer taps of 2500 gpd or more are required to submit a downstream capacity analysis to the NYSDEC for review demonstrating that there is capacity.

As a part of the BSA's sewer tap permitting process for storm discharges, new development upstream of or directly discharging to the CSS with soil disturbance of 0.25 acres or more must retain/detain on site post-construction flows during a 25-year storm in excess of pre-construction flows during a 2-year storm.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.

Yes

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Secondary treatment improvement project will be ongoing - to increase capacity within Wastewater Treatment Plant.

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?

Yes

In the past year, were there any discharges or releases of septage or hauled waste INTO the collection system upstream of a CSO?

No

Are there restrictions on when the POTW accepts hauled waste or septage?

Yes

Is there a dedicated location to discharge septage at the WWTP?

Yes

Does the facility have authorization from NYSDEC to accept hauled waste or septage at a location other than the WWTP?

No

Have there been, or will there be, any changes to the POTW's policy on septage and hauled waste?

No

Use the space below to provide a narrative description of how septage and hauled waste are received by the POTW, where remote acceptance locations are, any POTW restrictions on when these wastes can be received, and the total volume of these wastes received at remote locations during the reporting year.

POTW does not accept hauled waste or septage on certain holidays.

Dedicated location to discharge septage: Waste hauler receiving station

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?

Yes

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?

Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?

Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?

Yes

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 in the narrative box.

Yes

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

BSA is a non-traditional MS4. For most of the City of Buffalo, BSA performs SWPPP reviews, approvals, and inspections for the separate stormwater components. For those locations within the CSS, BSA enforces local regulations. In the next year, BSA intends to work with the City of Buffalo Departments to ensure that all aspects of the MS4 regulations are fully implemented.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?

Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?

Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?

Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?

Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?

Yes

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?

Yes

For Great Lakes Basin communities, when was the PNP last updated?

2019

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

The Buffalo Sewer Authority utilizes the NY-Alert system and the CSO outfall signs which are checked on an annual basis for condition as required to alert the public to the potential presence of CSO events. On the buffalo Sewer Authority website, Buffalo Sewer also maintains a map of CSOs and their current modeled probability of overflow based on a simplified linear regression of the model for each outfall.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?

Yes

Was baseline sampling conducted as part of LTCP development?

Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?

No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?

2034

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Extensive characterization & metering undertaken during the development of the BSA's CSO LTCP. As many BSA CSO outfalls are submerged &/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 & level gages - used to estimate CSO activation frequency & volume. A system-wide water quality model was developed. In calibrating the metering data to the "Modified Typical Year" rain gages were installed throughout the City of Buffalo. The post-construction monitoring plan: submitted-03/17/15; approved-03/01/16. Recalibrated model submitted to regulators for comment-01/08/19; final approval-10/6/21

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.

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Comment

NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/13/2023 2:39 PM	csobmpcert-signed.pdf	Attachment	Rosaleen Nogle