Sean W. Costello
Executive Director & General Counsel
(716) 299-7788
scostello@NFWB.org

October 22, 2025

VIA EMAIL and U.S. MAIL

Terri Mucha, Esq.
NYS Department of Environmental Conservation
Office of General Counsel
700 Delaware Avenue
Buffalo, New York 14209

Dear Ms. Mucha:

Re: Niagara Falls Water Board
Quarterly Progress Report
File No.: 08-58 (R920170906-129)

Enclosed pursuant to paragraph 15 of Schedule A to the Niagara Falls Water Board's above-referenced Order on Consent with the NYSDEC is the Quarterly Progress Report prepared by AECOM for the third quarter of 2025. Accompanying the Report is my signed certification.

We appreciate your attention to this matter. Should you have any questions or concerns, please call.

Sincerely,

Sean W. Costello

/tbs

AECOM Imagine it. Delivered.

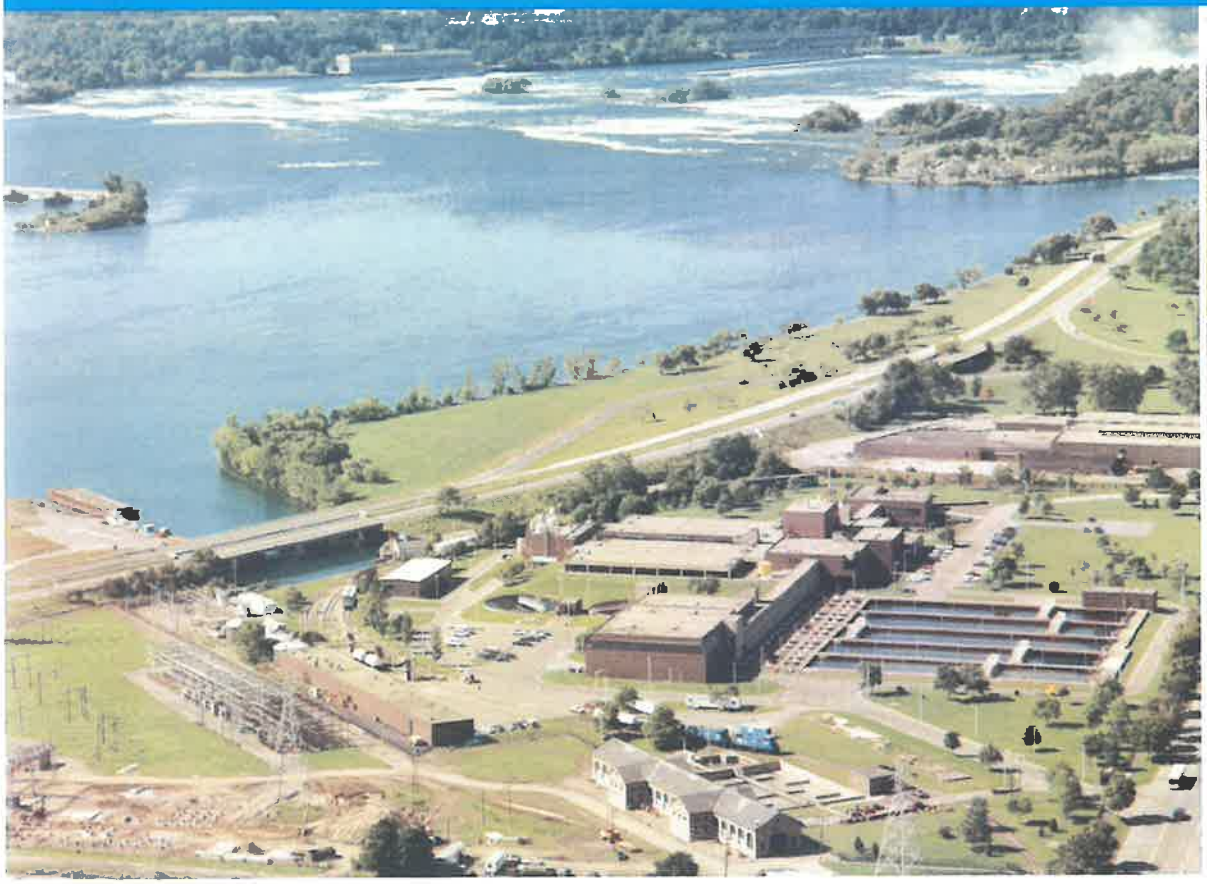
Q3 2025 Quarterly Progress Report

Niagara Falls Water Board
Order on Consent R9-20170906-129

Prepared for submission to:
New York State Department of Environmental Conservation Region 9
700 Delaware Avenue
Buffalo, New York 14209

Prepared by:
AECOM
50 Lakefront Blvd Suite 110
Buffalo, New York 14202

October 31, 2025



Q3 2025 Quarterly Progress Report

Niagara Falls Water Board Order on Consent R9-20170906-129

NIAGARA FALLS WATER BOARD

Prepared for Submission to:

New York State Department of Environmental Conservation Region 9
700 Delaware Avenue
Buffalo, NY 14209

Prepared By:

AECOM

50 Lakefront Boulevard Suite 111
Buffalo, New York 14202

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Niagara Falls Water Board Order on Consent R9-20170906-129
Q3 2025 Quarterly Progress Report

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Niagara Falls Water Board Order on Consent R9-20170906-129
Q3 2025 Quarterly Progress Report

October 31, 2025

Executive Summary

This document is the thirty first (31st) quarterly progress report for the Niagara Falls Water Board (NFWB) Order on Consent R9-20170906-129 (Consent Order) as originally required by Schedule A Item 15 of the Consent Order. This progress report covers the period from July 1, 2025 through September 30, 2025.

During the past quarter, the NFWB has properly operated the wastewater treatment plant (WWTP) and has met all State Pollution Discharge Elimination System (SPDES) permit requirements with minor exceptions for alpha-BHC in July 2025 (0.02 ug/) and September 2025 (0.023 ug/l) versus the SPDES limit of 0.01 ug/l. Solids processing (settling, thickening, dewatering) during this period has functioned as intended. Primary effluent is clean which has allowed the WWTP's activated carbon filters to efficiently process the plant's flow. Dewatering throughput during this period has kept up with incoming solids, compared to influent solids loadings. The WWTP was operated substantially free of odors during the past quarter.

Maintenance activities during the reporting period have been ongoing, and as of the end of the quarter major treatment systems and components are functional with a couple of exceptions that affect redundancy. The WWTP is undertaking capital upgrades and improvements that are within the capability of the WWTP's maintenance staff and/or contractors awarded service contracts. In addition to the projects being undertaken by the WWTP's staff and outside contractors, project planning, design, and construction of $27 million in major capital upgrades are taking place. Projects 2, 4, 6, 7, 8, 9, and 11 have been completed and work continues on Projects 1, 3, 5 and 10. Project 6 was reopened in Q4 2023 by the addition of sodium hypochlorite storage tank upgrades to the existing Project 6 scope. This work includes replacement of Tank 216 along with some sodium hypochlorite pump, piping, and secondary containment upgrades.

The NFWB has met all scheduled requirements of the Consent Order as identified in Schedule A of the Consent Order. Specific submissions during the past quarter include:

- The thirtieth (30th) quarterly report for the second quarter of 2025 (Q2 2025) was submitted July 31, 2025 to the New York State Department of Environmental Conservation (NYSDEC) and posted on the NFWB's website (Consent Order Item 15).

In May 2024 the NFWB and NYSDEC entered into Order on Consent R9-20230411-13, which also pertains to the WWTP. This major development must be noted here though it does not require quarterly reports or an Onsite Environmental Monitor (OEM) in connection with its requirements. The schedule in the new Order on Consent may be regarded as providing a roadmap for future improvements to the WWTP facility. The new Order on Consent is posted to the NFWB website, like these quarterly reports, and should be consulted for further details. In December 2024 a revised draft State Pollution Discharge Elimination System (SPDES) permit was received from the NYSDEC Albany, New York office. The permit contains a number of substantially revised effluent permit limits. The NFWB submitted its comments on the revised draft SPDES permit to the NYSDEC on March 25, 2025.

The NFWB is committed to working cooperatively and openly with the NYSDEC to improve the Niagara Falls WWTP and operate it to the best of its capability.

Niagara Falls Water Board Order on Consent R9-20170906-129
Q3 2025 Quarterly Progress Report

October 31, 2025

1. WWTP Performance

This section discusses the operation of the NFWB WWTP during the reporting period of July 1, 2025 through September 30, 2025. In the following sections, Treatment Plant Operations, Solids Removal Performance, and Treatment Plant Equipment Readiness are discussed.

1.1 Treatment Plant Operations

Mr. Dennis Kirkland serves as Chief Operator of the wastewater treatment plant as of January 4, 2022. As of January 1, 2025, Mr. Paul Drof (New York State Grade 4A Licensed Operator #7593) assumed the role as the licensed Grade 4 plant operator. Mr. Drof's principal work location is at the WWTP where he is responsible for plant operations and maintenance and is present an average of three days and approximately 20 hours per week. This change was previously reviewed and approved by Mr. Robert Locey (NYSDEC Region 9) via emails between the NYSDEC and NFWB Executive Director and General Counsel Sean Costello, dated December 6, 2024, January 3, 2025, and January 6, 2025.

During Q3 2025 solids processing has kept up with the incoming solids, and equipment maintenance and repair activities have been conducted as promptly as possible. Sodium hypochlorite consumption rose from 4,600 gallons per day in Q2 2025 to 6,600 gallons per day in Q3 2025, which is a typical reaction as wastewater temperatures increase through the summer. However, it is worth noting that sodium hypochlorite usage is approximately half of the usage from the same period in 2024, when Q3 2024 usage was 12,100 gallons per day. September 2025 saw a marked decrease compared to July and August 2025 with usage dropping to 3,700 gallons per day. For comparison, September 2024 sodium hypochlorite consumption was 12,000 gallons per day. The trend of reduced sodium hypochlorite usage is likely attributable to discharge reductions from significant industrial users. The practice of chlorinating the primary effluent was stopped on January 26, 2023 due to issues with the filters and reduced sulfide generation. Chlorination of the filter backwash water continues to be practiced during long washes and is included in the above totals.

The following operational considerations were noted during Q3 2025:

- With the shutdown of a portion of the Cascades facility, loadings from the facility have been relatively low this past quarter with total suspended solids (TSS) discharges during Q3 2025 averaging 1,100 lbs. per day and soluble organic carbon (SOC) averaging 760 lbs. per day. These are the lowest TSS and SOC levels witnessed in the past several years.
- Carbon filter backwash numbers have remained low (approx. 30 to 35 per day). During Q3 2025 filter backwash water was directed to the head of plant (Rapid Mix Tanks) where it is treated through the sedimentation basins and activated carbon.
- During Q3 2025 Sedimentation Basin 1 construction was completed and the basin was turned over to the facility for use. This marks the first time in four (4) years that all five (5) sedimentation basins have been available for use.

- During Q3 2025 the facility has been working with their contract laboratories and the NYSDEC to develop a plan to complete daily biochemical oxygen demand testing within hold times.

1.2 Solids Removal Performance

A solids balance for July, August, and September 2025 is presented in Table 1. The data is based upon effluent flow meter measurements and influent/effluent total suspended solids sample results generated by the facility. The data shows that the quantity of solids sent to the landfill has consistently exceeded the amount of solids removed from the wastewater plus chemical solids added (ferric chloride and lime).

Influent suspended solids loadings decreased slightly during Q3 2025 and remained consistent with the overall trend of reduced influent TSS loadings. During the past quarter influent suspended solids loadings averaged 184 dry tons per month (DTPM) which is slightly above the 2024 annual average influent suspended solids loadings of 165 DTPM, but much less than prior years' loadings.

1.3 Treatment Plant Equipment Readiness

During the reporting period there were several treatment plant equipment breakdowns that required maintenance staff to repair or replace equipment. Minor repairs have been made this past quarter to pumps, belt filter presses, and sedimentation basin equipment to address issues that have arisen. Although these repairs may have kept equipment out of service for periods of time during the past quarter, it has not significantly affected the plant performance. In general, a sufficient number of sedimentation basins with fully functional sludge removal equipment have been available to treat all incoming flows. As of the close of Q3 2025, the following can be said regarding treatment equipment operability:

- Four (4) Main Pumps are operational although Pumps 1 and 4 have experienced intermittent controls issues likely related to variable frequency drive (VFD) and/or temperature monitoring equipment (Allen Bradley 857 unit) issues that result in pump shutdown. Progress was made during the past quarter on troubleshooting the Main Pump VFDs and the Allen Bradley 857 monitoring systems. The facility is evaluating alternatives for eliminating the Allen Bradley 857 monitoring systems as parts for these units are no longer available.
- At the end of Q3 2025, four (4) sedimentation basins are functional and available for use. During Q3 2025 Sedimentation Basin 2 experienced a failure of the new chain and flight system in the basin's east side. Repairs were undertaken under warranty as part of capital project 1. After being repaired and placed back in service, in late September 2025 Sedimentation Basin 2 experienced another break in the chain and flight chain on the east side. The repair is expected to be made by the capital project 1 contractor under warranty in Q4 2025. During Q3 2025, two (2) sedimentation basins have been used for flows up to 40

mgd, three (3) basins used for flows between 40 mgd and 60 mgd, and four (4) basins for flows over 60 mgd.

- The lower effluent submersible pump in Sedimentation Basin 5 was powered and returned to service the first week of July 2025.
- Both rapid mix tanks are in service.
- Both grit classifiers are in service.
- Four (4) Intermediate Pumps are operational and control/drive issues are being monitored. Changes in the operation of the intermediate pumps that were made in Q2 2025 have been successful in minimizing check valve slamming.
- The six (6) replacement weir troughs were received in Q3 2025 and one trough was successfully replaced in carbon filter 2. One carbon filter remains out of service due to structural issues with one backwash trough (Filter 7). Repairs to additional weir troughs will be undertaken in Q4 2025 although these filters remain in service. As of the end of Q3 2025, twenty-seven (27) activated carbon filters are functional.
- Two filter backwash pumps are operational and issues with the backwash pump flow measurement devices have been resolved by in-house maintenance staff.
- Both backwash blowers are in service.
- Sodium hypochlorite backwash pump B experienced a variable frequency drive (VFD) failure during Q1 2025. This pump is used to pump sodium hypochlorite into the backwash water during carbon filter long washes on the B-train of carbon filters (Filters 15 – 28). One of the smaller sodium hypochlorite feed pumps that was set up to deliver sodium hypochlorite to the primary effluent is being used for this purpose until the capital project slated to replace these two sodium hypochlorite backwash feed pumps is completed.
- Thickened sludge pump #1 is out of service with VFD communication (control) issues. The problem will be addressed as part of the belt filter press control upgrades associated with capital project #3.
- During Q3 2025 belt filter press number 2 had replacement drive gears installed and the belt filter press was returned to service. As of the end of Q3 2025 three belt filter presses are functional.
- Two (2) pugmills, two (2) lime feed systems, and two (2) lime storage silos are fully functional.
- Work is being done in the WWTP main switchyard to facilitate automatic switching between independent power feeds 187 and 188. Currently automatic switching does not exist.

Table 1

Q3 2025 NFWB WWTP Solids Balance

Month & Year	Average Daily Flow	Average Influent TSS	Average Effluent TSS	TSS Removed (Dry)	Ferric Chloride Added to Wastewater (Dry)	Lime Added to Sludge (Dry)	Total Solids (Dry) (TSS + Lime + Ferric)	Solids Content of Landfilled Sludge	Total Solids (Wet)	Solids Landfilled (DRY)	% Landfilled
	mgd	mg/l	mg/l	Tons/day	Tons/day	Tons/day	Tons/day	%	Tons/day	Tons/day	%
Jul-25	20.8	64.1	9.0	4.8	1.26	1.80	7.8	28.0%	28.0	10.5	133%
Aug-25	20.5	78.4	6.7	6.1	1.38	1.24	8.8	27.9%	31.4	8.9	102%
Sep-25	19.6	70.0	6.7	5.2	1.23	1.11	7.5	25.6%	29.4	8.0	107%

NOTES: mgd million gallons per day
TSS Total Suspended Solids
1 % greater than or equal to 100 indicates all incoming solids plus all chemicals added are removed and sent to landfill.

2. Deliverables and Routine Communications

This section presents a listing and discussion of deliverables prepared by the NFWB for submission to the NYSDEC. In addition, other related written communications between the NYSDEC and the NFWB are also discussed.

2.1 Deliverables Status

All deliverables required under the Consent Order have been submitted to the NYSDEC in accordance with the schedule in the Consent Order. Deliverables submitted during the past quarter are listed in Table 2.

Table 2
NFWB Submissions to NYSDEC per Schedule A of the Consent Order

Date	Prepared By	Consent Order Schedule A Items	Comment
July 31, 2025	AECOM	Item 15	The thirtieth quarterly progress report for the second quarter of 2025 (Q2 2025) was submitted.

2.1.1 Existing WWTP Optimization Efforts

At this time, no further modifications/optimizations to the WWTP treatment process are being considered or planned. The NFWB is investigating treatment plant upgrades that likely will alter the existing treatment process in connection with Order on Consent R9-20230411-13.

2.2 Deliverables in Next Quarter

All deliverables required under the Consent Order have been submitted. No other deliverables are pending or due under the consent order other than this quarterly report.

2.3 Routine Communications in Past Quarter

During Q3 2025 the NFWB and NYSDEC held a number of discussions (via email) regarding SPDES permit compliance issues.

2.4 Unresolved Issues/Delays

There are no unresolved issues or delays.

3. Capital Improvement Program

In this section, progress on WWTP capital upgrades is discussed. Capital upgrades are proceeding on several fronts. Projects that are within the capability of in-house maintenance staff are being undertaken as quickly as possible. Additionally, outside contractors selected for WWTP work (Mechanical Contractor – Mollenberg-Betz, Electrical Contractor – Ferguson Electric) are being utilized for larger projects. Lastly, design and construction are underway to perform a number of capital upgrades that are necessary to stabilize the operation of the existing treatment plant. Each of these items is discussed in this section.

3.1 In-House Capital Upgrades Completed/Underway

This category of projects includes work being undertaken by plant maintenance staff or outside contractors without the need for extensive design and engineering documents. This work is generally considered repair and/or replace in kind and therefore NYSDEC approval is not generally required prior to performing the work. At this time all work slated to be performed in-house has been performed.

3.2 Capital Improvement Projects

A schedule for the ongoing capital projects is shown in Figure 1. Note that the NFWB has sought and obtained approval from the NYSDEC to upgrade certain chemical bulk storage facilities under the existing Project 6 engineering services agreement. As a result, Project 6 (effluent disinfection upgrades) was reopened in Q4 2024 to facilitate engineering and eventual construction of sodium hypochlorite improvements to Tank 216 and its secondary containment system.

Figure 1

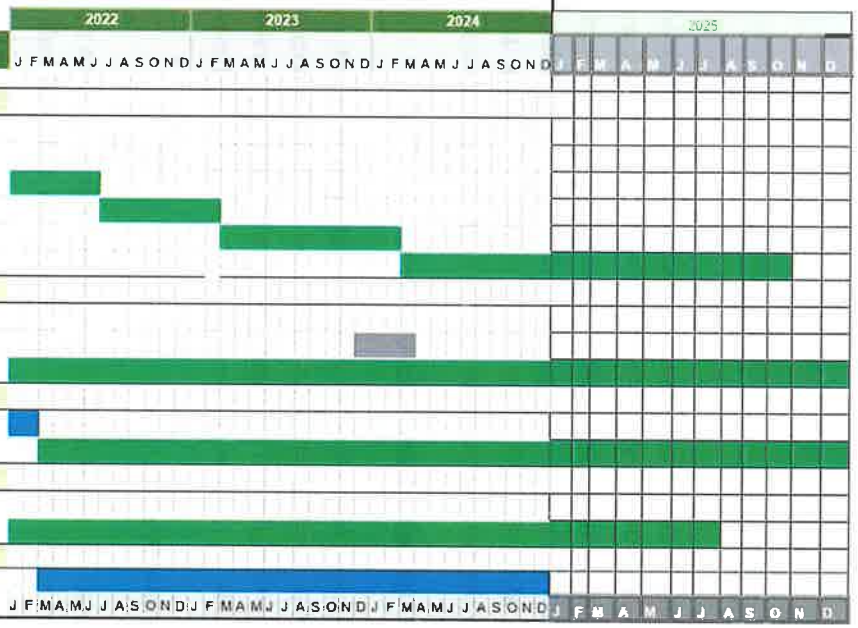
Capital Projects Estimated Construction Schedule

ESTIMATED CONSTRUCTION SCHEDULE

NFWB CAPITAL IMPROVEMENT PROJECTS

Updated 10/20/2025

TASK DESCRIPTION	PLAN START	PLAN END
Project #1: Sed. Basin Upgrades (CPL) - CA/CI Approved (10-26-20)		
Design and Bidding	5/22/2019	10/1/2020
Mobilization	11/1/2020	2/1/2021
Construction (Phase 1)	3/1/2021	6/30/2022
Construction (Phase 2)	7/1/2022	2/3/2023
Construction (Phase 3)	3/1/2023	2/3/2024
Construction (Phase 4)	3/1/2024	10/31/2025
Project #3 Polymer and Grit (Arcadis) - CA/CI Approved (10-26-20)		
Design and Bidding	5/30/2019	10/1/2020
Updated Design	12/1/2023	3/31/2024
Construction	11/1/2020	6/30/2026
Project #5 Electrical System Improvements (EI Team)		
Design and Bidding	4/25/2019	2/1/2022
Construction	3/1/2022	12/31/2025
Project #10 SCADA Improvements (Kaman) - CA Services Not Required		
Design and Bidding	6/1/2019	12/1/2019
Construction	1/1/2020	11/30/2024
Project #12 Int. Pump Improvements (GHD)		
Design	3/23/2022	8/23/2022 (RFP Pending)



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CERTIFICATION

I certify under penalty of law that the Q3 2025 Quarterly Progress Report, Niagara Falls Water Board Order on Consent R9-20170906-129 prepared by AECOM dated October 31, 2025, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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.

Niagara Falls Water Board

Name: Sean W. Costello
Title: Executive Director & General Counsel
Date: October 22, 2025