

**STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

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In the Matter of a Violation of Article 17 of the  
Environmental Conservation Law and Title 6, Part 750, of the  
New York Codes, Rules and Regulations by:

Niagara Falls Water Board  
5815 Buffalo Avenue  
Niagara Falls, New York 14304

**ORDER ON CONSENT**  
File No. 17-52  
R9-20170906-129

Respondent

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**WHEREAS:**

1. The Department of Environmental Conservation ("DEC" or "Department") is a Department of the State of New York ("State") with jurisdiction to enforce the environmental laws of the State pursuant to Section 3-0302 of the Environmental Conservation Law ("ECL"), Title 6 of the Official Compilation of the Codes, Rules and Regulations of the State ("6 NYCRR") and Orders issued thereunder.
2. The Department has jurisdiction over the abatement and prevention of pollution of State waters pursuant to ECL §17-0101, *et seq.*, and 6 NYCRR Part 750, *et seq.* This jurisdiction authorizes the Department to regulate the discharge of pollutants from point sources into the waters of the State in conformity with the Federal Clean Water Act, 33 U.S.C. 1251, *et seq.*
3. Pursuant to its authority to protect the waters of the State, the Department administers the State Pollutant Discharge Elimination System Permit ("SPDES") program. In general, the SPDES program prohibits any discharge of pollutants to the waters of the State without a SPDES permit establishing pollutant limitations, certain reporting obligations, and treatment requirements.
4. The Niagara Falls Water Board ("Respondent") is a municipal public benefit corporation which owns, operates, maintains control of and/or otherwise has responsibility for, various sanitary sewer systems, sanitary outfalls, and combined sewer outfalls associated with its wastewater treatment plant located in the City of Niagara Falls, New York ("Facility").
5. Respondent is subject to Article 17 of the ECL and its implementing regulations found in 6 NYCRR Part 750, *et seq.*, which govern the control and prevention of water pollution.
6. Respondent is also subject to the conditions and limitations imposed under SPDES Permit No. NY0026336, issued pursuant to ECL Article 17, Title 8, and 6

NYCRR 750 ("SPDES Permit"). The SPDES Permit was issued with an effective date of October 16, 2013 and expires on October 31, 2018.

7. Pursuant to ECL §17-0501, it is unlawful for any person, directly or indirectly, to throw, drain, run or otherwise discharge organic or inorganic matter that shall cause or contribute to a condition in contravention of the standards adopted by the Department pursuant to section 17-0301.

8. Pursuant to 6 NYCRR 703.2, the narrative water quality standard for turbidity applicable to a Class A-Special water body is "No increase that will cause a substantial visible contrast to natural conditions."

9. 6 NYCRR 750-2.8(a)(2) provides that a permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of the permit.

10. The Facility discharges effluent through Outfall 001 to the Niagara River, which is a Class A-Special water body of the State.

11. The Department makes the following allegations, which it alleges violated the ECL and/or Respondent's SPDES permit:

- a. On July 29, 2017 Respondent discharged dark effluent from Outfall 001 to the Niagara River, which caused a substantial visible contrast to natural conditions in the Niagara River and in contravention of the State's narrative water quality standard for turbidity, in violation of ECL §17-0501 and 6 NYCRR 703.2.
- b. Respondent's July 29, 2017 discharge violation was the result of human operational error and the lack of training. Specifically, Respondent dewatered Sedimentation Basin 5 at the Facility, in preparation for planned maintenance to install baffles and make repairs, but failed to follow written protocols.
- c. Sedimentation Basin 5 receives carbon filter backwash water consisting of activated carbon filter fines, wastewater solids, and biological solids. The color of the solids and settled material in Sedimentation Basin 5 is always dark. As detailed in Respondent's September 1, 2017 Report to the Department, inoperable and non-functioning equipment resulted in an accumulation of solids in Sedimentation Basin 5 during the period from March 2017 to July 29, 2017. The main reason for the discharge of the offending substance on July 29, 2017 is as follows:
  - i. Respondent's Operations and Maintenance Manual provides that during dewatering (i.e., emptying of the basin for maintenance or other purposes), material from Sedimentation Basin 5 may be directed to the Rapid Mix

Tank or the Thickener Tank. Respondent instead pumped the material to the Chlorine Contact Tank, where it mixed with the plant effluent, resulting in the discharge of a dark effluent which caused a substantial visual contrast to natural conditions in the Niagara River.

d. Contributing causes were:

- i. The failure to follow the Operations & Maintenance Manual dewatering procedures was compounded by Respondent providing unclear verbal dewatering instructions to an operator trainee to turn off the submersible pump in Sedimentation Basin 5 when the mixed water in the Chlorine Contact Tank turned dark, and a second operator trainee was told to report the dark water but was not told to turn the pump off; and
  - ii. The following deficiencies in Sedimentation Basin 5: a non-functioning chain and flight system and an inoperable traveling bridge.
- e. The Facility has Combined Sewer Overflow (CSO) Outfall 003 which discharges from Respondent's Falls Street Tunnel into the Niagara River.
- f. On August 15, 2017, Respondent discharged combined sewage from Outfall No. 003 into the Niagara River, and partially treated wastewater from Outfall 001 into the Niagara River, which caused a substantial visible contrast to natural conditions in the Niagara River and contravened the State's narrative water quality standard for turbidity, in violation of ECL §17-0501 and 6 NYCRR 703.2.
- g. On October 4, 2017, Respondent discharged combined sewage from Outfall 003 and Outfall 006 and partially treated wastewater from Outfall 001 into the Niagara River, which caused a substantial visible contrast to natural conditions in the Niagara River and contravened the State's narrative water quality standard for turbidity, in violation of ECL §17-0501 and 6 NYCRR 703.2.
- h. On October 8, 2017, Respondent discharged combined sewage from Outfall 003 and Outfall 006 and partially treated wastewater from Outfall 001 into the Niagara River, which caused a substantial visible contrast to natural conditions in the Niagara River and contravened the State's narrative water quality standard for turbidity, in violation of ECL §17-0501 and 6 NYCRR 703.2.

12. At the Department's direction Respondent performed the following actions in response to these alleged violations:



- a. Provided details on how the NFWB will reduce accumulated solids in the sedimentation basins and sludge thickener tanks. This included an evaluation of the actual capacity (not design capacity) of all belt filter presses and the duration of operation that is necessary to remove accumulated solids within 30 days, so that the plant can resume typical solids handling procedures. The schedule detailed and included all means and methods utilized to remove liquid or dewatered sludge.
- b. Reduced the solids accumulation in the two thickener tanks and is maintaining solids inventory at levels that minimize solids carryover in the thickener tank overflow.
- c. Removed accumulated excessive sludge from all sedimentation basins.
- d. Completed all repairs that were underway in Sedimentation Basin 5, consisting of repairs to the chain and flight system and traveling bridge.

13. Respondent neither admits nor denies these allegations referenced in paragraph 11, but reserves entirely its rights to dispute or contest them in this or any other matter, proceeding or action.

14. Notwithstanding all of the above, the Respondent now desires to enter into, and now agrees to enter into, this Consent Order as part of its on-going and continual efforts to make improvements to achieve the most effective wastewater treatment possible, and to maximize the capture of wet-weather flows for the benefit of the environment.

15. ECL §71-1929 imposes a penalty not to exceed Thirty-Seven Thousand Five Hundred Dollars (\$37,500) per day for each alleged violation described in paragraph 11 and also provides for injunctive relief.

16. In order to address the alleged violations noted in paragraph 11 above, the Department and Respondent agree to enter into this Order, which contains requirements governing Respondent's Facility, designed to prevent or minimize future discharges.

17. The Department and Respondent have each consented to the making of this Order, without further action, litigation, hearing or adjudication of any issues of fact or law, and being duly advised, and it being in the public interest;

**NOW, having considered this matter and being duly advised, IT IS ORDERED THAT:**

**I. CIVIL PENALTY**

A. Respondent is assessed a total civil penalty in the amount of \$50,000, which shall be paid by check or money order, made payable to the "New York State Department of Environmental Conservation," with the Case Number of this Order



on Consent written on the check and sent within 45 days of the Effective Date of the Order to the Regional Attorney, NYSDEC, 270 Michigan Avenue, Buffalo, New York 14203.

B. In addition to the payable penalty set forth in paragraph 1.A above, Respondent is assessed a suspended penalty of \$100,000. The DEC may, however, vacate the suspension and assess the penalty, or any part of it, for a violation of the material provisions, terms or conditions of this Order, including the Schedule of Compliance attached as Schedule A to this Order. The suspended portion of the penalty shall be extinguished upon Respondent's full compliance with the terms and conditions of this Order, in accordance with paragraph XVII below.

C. The penalty assessed in this Order constitutes a debt owed to the State of New York. Failure to pay the assessed penalty, or any part thereof, in accordance with the schedule contained in the Order, may result in referral to the New York State Attorney General for collection of the entire amount owed (including the assessment of interest, and a charge to cover the cost of collecting the debt), or referral to the New York State Department of Taxation and Finance, which may offset any tax refund or other monies that may be owed to you by the State of New York by the penalty amount. Any suspended and/or stipulated penalty provided for in this Order will constitute a debt owed to the State of New York when and if such penalty becomes due.

## **II. COMPLIANCE**

Respondent shall be immediately bound as provided by this Order and attached Schedule of Compliance, attached as "Schedule A." Respondent shall implement all actions set forth in Schedule A by the dates indicated therein. Schedule A, and any approved plan(s) or schedules developed pursuant to Schedule A, are hereby incorporated into and made an enforceable part of this Order.

## **III. STIPULATED PENALTIES**

A. Except as otherwise provided herein, if Respondent fails to comply with any terms of this Order, including any approved plans or schedules incorporated into this Order, the Department shall be entitled to judgment against Respondent. Respondent hereby consents to entry of judgment in New York State Supreme Court for a stipulated penalty for each day of such violation of this Order. The stipulated penalty shall become due and payable, and may be entered as a judgment, upon thirty (30) days' notice to Respondent.

Said stipulated penalties shall be in the following amounts:

1. For days 1 to 14, the penalty shall be \$250.00 per day;
2. For days 15 to 30, the penalty shall be \$500.00 per day;
3. For days 31 to the date the corrective action has been completed, the penalty shall be \$1,000.00 per day.

B. Any stipulated penalties assessed pursuant to this paragraph shall be separate, and in addition to, any suspended penalties assessed pursuant to paragraph I.B above.

#### **IV. ON-SITE ENVIRONMENTAL MONITOR (OEM) and CONSULTANT**

The Respondent shall fund environmental monitoring services to be performed by a third party contractor, as approved by the Department, within 90 days of the effective date of this Order. Said contractor will perform monitoring services including, but not limited to, the following:

A. Oversee and advise on management of operations of the plant and compliance monitoring to ensure adherence to the requirements of Schedule A, attached to and included with this Order.

B. Perform inspections in furtherance of its compliance monitoring.

C. Provide regular reports of its observations to the Department, at a minimum, on a quarterly basis.

D. Respondent shall fund the OEM on a quarterly basis, with funding due for the previous quarter within thirty (30) days of the submission of an invoice at the beginning of each subsequent quarter. The amount due for each quarter's environmental monitoring services shall not exceed \$2,500 without prior approval of the Department and at least 30 days notice to the Respondent.

E. Failure to make the required payments to the third party contractor shall be a violation of this Order.

#### **V. SUBMISSIONS**

A. The Respondent shall send all documentation and submissions required by this Order to the Department at the following address, unless otherwise noted. All submissions must include a certification that they are in compliance with the requirements of this order:

Mr. Jeffrey Konsella, Regional Water Engineer  
NYSDEC Region 9  
270 Michigan Avenue  
Buffalo, New York 14203

B. For purposes of this Order only, any document or plan which is required to be submitted to DEC pursuant to this Order must be approvable by the Department upon submission or with only "minimal revision" in response to Department comments. Consistent with 6 NYCRR Section 750-1.2(8), minimal revision shall mean



the facility plan can be revised and resubmitted to the Department within 60 days of notification by the Department that the revisions are necessary. The Department shall notify the Respondent in writing of its approval or disapproval of each submission and the reasons for any disapproval. All Department approved submissions shall be incorporated into and become an enforceable part of the Order and Respondent shall implement them in accordance with all approved schedules and terms.

C. The Department may request that Respondent modify and/or expand a submission if the Department determines that further work is necessary.

D. Stipulated penalties pursuant to Section III above, based on the failure to submit an approvable submittal, shall not begin to accrue unless 60 days have elapsed after Respondent has received the Department's comments on a submittal, and Respondent has not submitted an approvable revised document. It is expressly understood that stipulated penalties begin to accrue upon day 61 after Respondent has received the Department's comments on a submittal, if Respondent does not submit an approvable revised submittal by that date or such date as modified by DEC.

## **VI. ACCESS**

For the purpose of monitoring or determining compliance with this Order, employees and agents of the Department shall be provided access to the Facility or records owned, operated, controlled or maintained by Respondent in order for Department staff or its agents to inspect and/or perform any necessary tests, related to the requirements of this Order, during reasonable hours. No prior notification to the Respondent of site inspections is required.

## **VII. RELEASE, REOPENER AND RESERVATION OF RIGHTS**

A. This Order settles only all State claims for civil and administrative penalties concerning the alleged violations described in Paragraph 11 of this Order against Respondent and its successors (including successors in title) and assigns.

B. Nothing contained in this Order shall be construed as a release or waiver by the Department of its rights to: (1) seek penalties and other relief for any criminal liability for any violations listed in this Order; (2) seek stipulated penalties and entry of judgment as provided by Paragraph III of this Order; (3) reallege the violations listed in this Order to obtain injunctive relief or damages in support of natural resource damage claims; (4) seek injunctive relief to abate any violation of law or this Order; and (5) seek to modify, suspend or revoke any Department issued permit.

C. Nothing contained in this Order shall be construed as a release or waiver of Respondent's rights to oppose and defend against injunctive relief, imposition of penalties, damages or any other imposition of liability by the Department. Nothing contained in this Order shall be construed as a waiver by Respondent of its rights to seek a modification of its Permit.



D. Except as provided hereunder, Respondent is responsible for achieving and maintaining complete compliance with all applicable federal, State and local laws, regulations and permits; and Respondent's compliance with this Order shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The Department does not, by its consent to the issuance of this Order, warrant or aver in any manner that Respondent's compliance with any aspect of this Order will result in compliance with provisions of any federal, State or local laws, regulations or permits.

E. This Order shall not be construed as being in settlement of events regarding which the Department lacks knowledge or notice and the Department reserves the right to require Respondent to take any additional measures deemed necessary by the Department to protect human health or the environment, to exercise its authorities under law to protect human health and the environment or to otherwise require compliance with the law.

#### **VIII. FAILURE, DEFAULT AND VIOLATION OF ORDER**

Respondent's failure to comply fully and in a timely manner with any provision, term or condition of this Order shall constitute a default and failure to perform an obligation under this Order and under the ECL.

#### **IX. INDEMNIFICATION**

Respondent shall indemnify and hold harmless the Department, the State of New York, and their representatives and employees for all claims, actions, damages and costs of every nature and description resulting from the Respondent's fulfillment or attempted fulfillment of this Order.

#### **X. FORCE MAJEURE**

If Respondent cannot comply with a deadline or requirement of this Order, because of an act of God, war, strike, riot, catastrophe or other condition which is not caused by the negligence or willful misconduct of Respondent and which could not have been avoided by Respondent through the exercise of due care, Respondent shall apply in writing to the Department within a reasonable time after obtaining knowledge of such fact and request an extension or modification of the deadline or requirement.

#### **XI. DISPUTE RESOLUTION**

A. Any dispute that arises between the Department and Respondent under this Order, shall, in the first instance, be the subject of informal negotiations between the Department and Respondent for a period of up to 20 working days from the time notice of a dispute is received by any of the parties. The period of negotiations may be extended by written agreement between the Department and Respondent. In the event that the parties are unable to resolve a dispute by informal negotiations,

Respondent may request to meet with the Region 9 Regional Engineer ("Regional Engineer") in order to discuss the Department's objections/determinations. At this meeting Respondent shall be given an opportunity to present its responses to the Department's objections/determinations, and the Regional Engineer shall have the authority to modify and/or withdraw such objections/ determinations. After the Regional Engineer makes his/her decision(s) Respondent shall either (a) within sixty (60) days of receipt of written notice of the Regional Engineer's determinations, commence a proceeding pursuant to Article 78 of the CPLR (the Regional Engineer's decision(s) shall be deemed to be final agency action for the purposes of such a proceeding) or (b) notify the Department that it intends to comply with the Regional Engineer's decision(s).

B. Stipulated penalties pursuant to Section III of this Order shall accrue during the term of Dispute Resolution for matters subject to dispute resolution hereunder, but payment shall be stayed pending resolution of the dispute. If Respondent does not prevail on the disputed issue, stipulated penalties may be assessed and paid as provided by Paragraph III of this Order, from the date the violation first occurred. Further, the invocation of Dispute Resolution shall not, by itself, extend, postpone or affect in any way any obligation of Respondent under this Order, including the Schedule A, unless and until a final resolution of the dispute so provides.

## **XII. BINDING EFFECT**

This Order is binding on the Respondent, heirs, successors, employees and all persons, firms, or corporations acting under or for it.

## **XIII. MODIFICATIONS AND EXTENSIONS**

No change or modification of this Order shall be effective unless the modification is done in writing and signed by both the Respondent and the Commissioner or his/her designee. If the Department receives a written request from the Respondent which (a) would extend an item(s) in Respondent's Compliance Schedule; (b) the extension does not exceed a cumulative of six months from the original milestone date(s); (c) the request is made before the milestone date and (d) sets forth good cause for the extension, the Department may extend the time frame requested by the issuance of a letter signed by the original signatory or designee of the signatory.

## **XIV. USE OF ORDER BY THIRD PARTIES**

The existence of this Order, and Respondent's consent thereto, and compliance herewith, shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.

## **XV. ENTIRE ORDER**

The provisions of this Order and the attachments hereto constitute the complete and entire Order issued to the Respondent concerning the resolution of the violations

set forth in this Order. No term, condition, understanding or agreement purporting to modify or vary any term hereof shall be binding unless made in writing and subscribed by the party to be bound. No informal oral or written advice, guidance, suggestion or comment by the Department regarding any report, proposal, plan, specification, schedule, comment or statement made or submitted by Respondents shall be construed as relieving Respondent of its obligation to obtain such formal approvals as may be required by this Order.

#### **XVI. GENERAL PROVISIONS**

A. All references to "days" herein are to calendar days unless otherwise specified.

B. The section headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Order.

C. This Order and its Appendices shall apply to, and be binding upon the parties, their officers, agents, servants, employees, successors and assigns, and each of them, and upon all persons, firms and corporations acting under, through or for, in active concert or participation with, the parties.

D. Respondent shall certify in writing, within 30 days of completion of each milestone or requirement set forth in Schedule A.

#### **XVII. EFFECTIVE DATE AND TERMINATION OF THIS ORDER**

A. The effective date of this Order ("EDO") is the date that the Commissioner or his designee signs it. The Department will provide Respondent (or Respondent's counsel) with a fully executed copy of this Order as soon as practicable after the Commissioner or his designee signs it.

B. This Order shall be deemed completely satisfied and shall terminate when each of the following conditions has been fully satisfied: (1) Respondent has paid the civil penalty as set forth in Section I above, and all other outstanding penalties assessed hereunder; and (2) Respondent has certified in writing the completion of each Schedule A item requiring an approvable submission to the Department and DEC has approved said certifications in writing.



**DATED:** Buffalo, New York

December 19, 2017

Basil Seggos, Commissioner  
New York State Department of  
Environmental Conservation

By:

Abby M. Snyder

Abby M. Snyder  
Regional Director

CONSENT BY NIAGARA FALLS WATER BOARD

Respondent hereby consents to the issuing and entering of the foregoing Order, waives its right to a hearing as provided by law, and agrees to be bound by the provisions, terms and conditions contained therein.

By: Daniel T. O'Callaghan



Title: Chairman

Date: December 18, 2017

State of New York )  
                                  ) ss.:  
County of                )

On the 18th day of December, in the year 2017, before me, the undersigned, personally appeared Daniel T. O'Callaghan, personally known to me who, being duly sworn, did depose and say that he resides at 540 62<sup>nd</sup> St., Niagara Falls, NY 14304 and that he is the Chairman of the Niagara Falls Water Board, the public benefit corporation described in and which executed the above instrument; and that he signed his name thereto by the authority of said public benefit corporation.

  
Notary Public

ERIKA E SCHROEDER  
NOTARY PUBLIC-STATE OF NEW YORK  
No. 01SC6358270  
Qualified In Niagara County  
My Commission Expires 05-08-2021

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Niagara Falls Water Board

SCHEDULE A  
Order on Consent R9-20170906-129

Respondent shall, on or before the dates indicated:

Item	Date
1. Update Operation and Maintenance (O&M) and training procedures and staffing plans as necessary and submit revisions to the Department for review and approval. O&M and staffing plans must address preventative maintenance as well as corrective maintenance. If any current O&M/training practices are not routinely performed in accordance with the latest Department approved version and schedule set forth in the O&M manual or training and staffing plans, Respondent must provide a summary of the practice(s), rationale for any proposed modification, and incorporate the changes into the updated O&M manual and/or training and staffing plans for Department review and approval. Respondent shall begin implementing the updated O&M manual, training and staffing plans, and any approved schedules, within 30 days of receiving approval from the Department.	Effective Date of Order (EDO) +15 Months
2. Operate all treatment processes in accordance with the latest Department approved O&M manual and training plan for the facility (including approved revisions). Discharges of effluent from Sediment Basin 5, only when Sediment Basin 5 is on-line, shall be permitted to the Chlorine Contact Tank without prior approval from the Department. Processes and equipment that have been properly decommissioned are exempt from this requirement.	Immediate
3. The current O&M manual procedures for sedimentation tank dewatering are specified in Section 3.4.7 and state that grit pumps and sludge pumps are to be used for basin dewatering. Sedimentation tank dewatering must be performed using either the current O&M manual or Department approved modifications to the O&M manual.	Immediate
4. Submit an approvable work plan and schedule which will remove excess solids from the treatment plant within 30 days. Respondent shall implement the approved work plan consistent with the approved schedule of compliance. The work plan and proposed schedule must address the following:	EDO+2 months



- a. Ensure that all three sludge belt press systems are available for operation at all time (except for normal maintenance). Each belt press system includes a belt press and all supporting equipment including a thickened sludge pump and a polymer pump. All process piping and valving shall allow all three belts presses to operate simultaneously.
  - b. Upon elimination of the excess sludge inventory in the thickener tanks, plant sludge inventory shall be maintained at sufficiently low levels to enable all treatment processes to function as intended.
  - c. Identify and either repair or replace all sludge dewatering equipment which is currently not functioning appropriately.
  - d. Evaluate and provide a summary of recommendations to improve the reliability of the thickened sludge pumping system including replacing plastic piping with ductile iron piping.
5. Improve the reliability of all Sedimentation Basin traveling bridge and chain & flight equipment. Specific actions should include:
- a. Revise the O&M manual, training plan, and standard operating procedures so that preventative maintenance and corrective actions will be undertaken in the sludge collection equipment as soon as practicable. Depending on the nature of the failure, this may require taking the basin off-line and dewatering for repairs. EDO+15 months
  - b. Evaluate and summarize appropriate recommendations and maintenance schedules for the operation of sludge collector equipment in order to prevent significant damage in the event of failure. Such items may include, but are not limited to, the installation of torque sensors and/or automatic shut-offs. EDO+3 months
  - c. As improper sludge removal contributes to septic conditions and causes the sedimentation basins to be more susceptible to wash-out, the basins should not routinely remain in service if they are not properly removing sludge. However, in certain instances, such as emergency situations, basins in such a condition may be returned to service upon Department approval. Immediate
  - d. Submit a report which identifies the causes of the recurring

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| failures of this equipment, and provides specific recommendations and schedules for improvements including the conversion from travelling bridge collectors to chain and flight collectors. Upon approval, implement the recommendations in accordance with the approved schedules.  | EDO+9 months |
| 6. Submit a work plan to evaluate alternatives to the use of ferric chloride as a flocculant for removing phosphorus with the goal of reducing iron sulfide contributions to effluent color. The plan shall include bench scale and pilot scale testing of alternative flocculants.  | EDO+9 months |
| 7. Submit a work plan for an evaluation of how to best manage the effluent from Sedimentation Basin 5. This evaluation should consider whether treatment of the backwash can be improved through chemical addition or other methods. The work plan must identify additional data needs and include a schedule of completion. Respondent shall implement the approved work plan consistent with the approved schedule of compliance.                | EDO+9 months |
| 8. While continuing to follow the current Wet Weather Operating Plan (WWOP), evaluate and identify any potential changes to the WWOP – at the plant and in the collection system - which would reduce or eliminate plant bypasses due to excessive wet weather influent flows, and submit proposed changes for Department approval. Respondent shall begin implementing the updated WWOP within 30 days of receiving approval from the Department. | EDO+9 Months |
| 9. Evaluate and summarize recommendations to improve the plant's disinfection processes, including, but not limited to those alternatives previously identified in the October 2015 WWTP Effluent Turbidity Engineering Report. Respondent shall begin implementing a disinfection process within 30 days of receiving approval from the Department.   | EDO+9 months |
| 10. Evaluate and provide a work plan and approvable schedule to conduct a pilot study to add oxidizer to carbon filter influent and backwash water to determine if sulfide generation in the carbon filters can be reduced or prevented. As part of the study, review the plant's previous use of sodium nitrate as an oxidizer. Respondent shall begin implementing the pilot study within 30 days of receiving approval from the Department.     | EDO+6 months |
| 11. Submit a comprehensive planning level engineering report which   |              |

- evaluates the conversion or modification of the existing plant into an aerobic biological treatment process. The report should incorporate and utilize appropriate elements of the October 2015 WWTP Effluent Turbidity Engineering Report. The report must:
- A. include a detailed alternatives evaluation (including appropriate pilot testing), identification of the recommended process technology, optimizing the collection system and treatment plant to capture and treat combined sewer overflows, the new or modified facilities that would be required, and an updated cost estimate; and
  - B. identify any necessary upgrades and modifications needed to capture between 95% and 97% of CSOs.
12. Submit a detailed description of the means and methods used to record: a) the activation and volumes of CSO discharges from the Falls Street Tunnel and the Gorge Pump Station; and b) activations and volumes of SSO discharges from the LaSalle area. EDO+3 months
  13. Submit a detailed summary of the procedures followed, and the specific personnel responsible for notifications to the NYAlert system for reporting of CSO and SSO discharges. EDO+3 months
  14. Submit an evaluation of re-locating Outfalls 001 and 003. This evaluation should consider the effect on the water quality of the receiving water if Outfalls 001 and 003 were to be re-located. The evaluation must identify all suitable locations, costs, and applicable schedules of compliance. EDO + 9 months
  15. Submit Quarterly progress reports summarizing all actions completed. Every 3 months; ending when the last deliverable is submitted pursuant to Schedule A
  16. Respondent shall not conduct any further dewatering of Sedimentation Basin 5 without the prior written approval and without direct supervision of the Department. In addition, all facility operations conducted by the Respondent shall be under the direct supervision and oversight of the Department as set forth in this Consent Order. On-going



17. Respondent shall immediately update its day to day training and operating plans, including hiring new operators and providing clear verbal instructions to staff.

Completed

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Niagara Falls Water Board**

**SCHEDULE A  
Order on Consent R9-20170906-129  
REVISED SEPTEMBER 17, 2018**

Respondent shall, on or before the dates indicated:

<b>Item</b>	<b>Date</b>
1. Update Operation and Maintenance (O&M) and training procedures and staffing plans as necessary and submit revisions to the Department for review and approval. O&M and staffing plans must address preventative maintenance as well as corrective maintenance. If any current O&M/training practices are not routinely performed in accordance with the latest Department approved version and schedule set forth in the O&M manual or training and staffing plans, Respondent must provide a summary of the practice(s), rationale for any proposed modification, and incorporate the changes into the updated O&M manual and/or training and staffing plans for Department review and approval. Respondent shall begin implementing the updated O&M manual, training and staffing plans, and any approved schedules, within 30 days of receiving approval from the Department.	March 19, 2019
2. Operate all treatment processes in accordance with the latest Department approved O&M manual and training plan for the facility (including approved revisions). Discharges of effluent from Sediment Basin 5, only when Sediment Basin 5 is on-line, shall be permitted to the Chlorine Contact Tank without prior approval from the Department. Processes and equipment that have been properly decommissioned are exempt from this requirement.	Immediate
3. The current O&M manual procedures for sedimentation tank dewatering are specified in Section 3.4.7 and state that grit pumps and sludge pumps are to be used for basin dewatering. Sedimentation tank dewatering must be performed using either the current O&M manual or Department approved modifications to the O&M manual.	Immediate
4. Submit an approvable work plan and schedule which will remove excess solids from the treatment plant within 30 days. Respondent shall implement the approved work plan consistent with the approved schedule of compliance. The work plan and proposed schedule must address the following:	Completed

- a. Ensure that all three sludge belt press systems are available for operation at all time (except for normal maintenance). Each belt press system includes a belt press and all supporting equipment including a thickened sludge pump and a polymer pump. All process piping and valving shall allow all three belts presses to operate simultaneously.
  - b. Upon elimination of the excess sludge inventory in the thickener tanks, plant sludge inventory shall be maintained at sufficiently low levels to enable all treatment processes to function as intended.
  - c. Identify and either repair or replace all sludge dewatering equipment which is currently not functioning appropriately.
  - d. Evaluate and provide a summary of recommendations to improve the reliability of the thickened sludge pumping system including replacing plastic piping with ductile iron piping.
5. Improve the reliability of all Sedimentation Basin traveling bridge and chain & flight equipment. Specific actions should include:
- a. Revise the O&M manual, training plan, and standard operating procedures so that preventative maintenance and corrective actions will be undertaken in the sludge collection equipment as soon as practicable. Depending on the nature of the failure, this may require taking the basin off-line and dewatering for repairs. March 19, 2019
  - b. Evaluate and summarize appropriate recommendations and maintenance schedules for the operation of sludge collector equipment in order to prevent significant damage in the event of failure. Such items may include, but are not limited to, the installation of torque sensors and/or automatic shut-offs. Completed
  - c. As improper sludge removal contributes to septic conditions and causes the sedimentation basins to be more susceptible to wash-out, the basins should not routinely remain in service if they are not properly removing sludge. However, in certain instances, such as emergency situations, basins in such a condition may be returned to service upon Department approval. Immediate



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| <p>d. Submit a report which identifies the causes of the recurring failures of this equipment, and provides specific recommendations and schedules for improvements including the conversion from travelling bridge collectors to chain and flight collectors. Upon approval, implement the recommendations in accordance with the approved schedules.</p>  | <p>Sept 19, 2018</p>  |
| <p>6. Submit a work plan to evaluate alternatives to the use of ferric chloride as a flocculant for removing phosphorus with the goal of reducing iron sulfide contributions to effluent color. The plan shall include bench scale and pilot scale testing of alternative flocculants.</p>  | <p>Sept. 19, 2018</p>                                       |
| <p>7. Submit a work plan for an evaluation of how to best manage the effluent from Sedimentation Basin 5. This evaluation should consider whether treatment of the backwash can be improved through chemical addition or other methods. The work plan must identify additional data needs and include a schedule of completion. Respondent shall implement the approved work plan consistent with the approved schedule of compliance.</p>  | <p>Sept. 19, 2018</p>                                       |
| <p>8. While continuing to follow the current Wet Weather Operating Plan (WWOP), evaluate and identify any potential changes to the WWOP – at the plant and in the collection system - which would reduce or eliminate plant bypasses due to excessive wet weather influent flows, and submit proposed changes for Department approval. Respondent shall begin implementing the updated WWOP within 30 days of receiving approval from the Department.</p>   | <p>Sept. 19, 2018</p>                                       |
| <p>9. Evaluate and summarize recommendations to improve the plant's disinfection processes, including, but not limited to those alternatives previously identified in the October 2015 WWTP Effluent Turbidity Engineering Report. Respondent shall begin implementing a disinfection process within 30 days of receiving approval from the Department.</p>   | <p>Sept. 19, 2018</p>                                       |
| <p>10. Evaluate and provide a work plan and approvable schedule to conduct a pilot study to add oxidizer to carbon filter influent and backwash water to determine if sulfide generation in the carbon filters can be reduced or prevented. As part of the study, review the plant's previous use of sodium nitrate as an oxidizer. The study shall also evaluate the effect of the oxidizer on effluent disinfection and determine the most effective feed point for the oxidizer. Respondent shall begin implementing the pilot study within 30 days of receiving approval from the Department.</p> | <p>Submitted June 19, 2018; Revision due Sept. 19, 2018</p> |

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| <p>11. Submit a comprehensive planning level engineering report which evaluates the conversion or modification of the existing plant into an aerobic biological treatment process. The report should incorporate and utilize appropriate elements of the October 2015 WWTP Effluent Turbidity Engineering Report. The report must:</p> <p>A. Include a detailed alternatives evaluation (including appropriate pilot testing), identification of the recommended process technology, optimizing the collection system and treatment plant to capture and treat combined sewer overflows, the new or modified facilities that would be required, and an updated cost estimate; and</p> <p>B. identify any necessary upgrades and modifications needed to capture between 95% and 97% of CSOs.</p> | <p>March 19, 2019</p>   |
| <p>12. Submit a detailed description of the means and methods used to record: a) the activation and volumes of CSO discharges from the Falls Street Tunnel and the Gorge Pump Station; and b) activations and volumes of SSO discharges from the LaSalle area.</p>   | <p>Completed</p>  |
| <p>13. Submit a detailed summary of the procedures followed, and the specific personnel responsible for notifications to the NYAlert system for reporting of CSO and SSO discharges.</p>   | <p>Completed</p>  |
| <p>14. Submit an evaluation of re-locating Outfalls 001 and 003. This evaluation should consider the effect on the water quality of the receiving water if Outfalls 001 and 003 were to be re-located. The evaluation must identify all suitable locations, costs, and applicable schedules of compliance.</p>   | <p>Sept. 19, 2018</p>   |
| <p>15. Submit Quarterly progress reports summarizing all actions completed.</p>  | <p>Every 3 months; ending when the last deliverable is submitted pursuant to Schedule A</p> |
| <p>16. Respondent shall not conduct any further dewatering of Sedimentation Basin 5 without the prior written approval and without direct supervision of the Department. In addition, all facility operations conducted by the Respondent shall be under the direct supervision and oversight of the Department as set forth in this Consent Order.</p>  | <p>On-going</p>   |

17. Respondent shall immediately update its day to day training and operating plans, including hiring new operators and providing clear verbal instructions to staff.

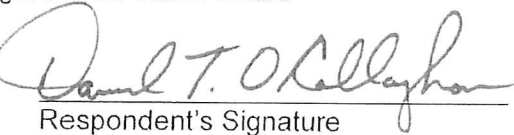
Completed

18. Submit a workplan and schedule for the design and construction of the recommendations in the attached Table 4.1 from the July 24, 2018 Engineering Report – Wastewater Treatment Plant and Gorge Pump Station Rehabilitation, attached hereto as Appendix A.

June 19,  
2019

Niagara Falls Water Board

By:



Respondent's Signature

DANIEL T. O'Callaghan

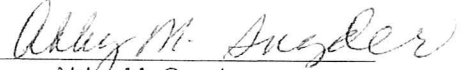
Respondent's Name

CHAIRMAN

Respondent's title

NYS Department of Environmental  
Conservation

By:



Abby M. Snyder  
Regional Director

Dated:

11/20/2018





## 4. Recommended Alternative

The recommended alternatives that were evaluated, compared, selected, and estimated under Section 2.0 are summarized in Table 4.1. The recommended alternatives were bundled into nine project groups based on relative priority. Recommended alternatives are sorted according to project group number.

**Table 4.1 Summary of Recommendations**

Project Group	Alternative	Description	Cost
1	2B	Primary Scum Removal and Treatment Improvements – Restore Scum Pumping and Install Fine Screen	\$1,020,000
	4C	Sedimentation Basin Improvements – Replacement of Traveling Bridges with Chain and Flight Equipment	\$8,680,000
	10C	Sedimentation Basin Isolation Plate Replacement – Replacement of Both Isolation Plate Guides	\$140,000
	19C	Sedimentation Basin No. 5 Effluent Management Improvements – Submersible Pumping System Upgrades	\$550,000
2	7C	Gorge Pumping Station Rehabilitation – Comprehensive Gorge Pumping Station Rehabilitation	\$4,110,000
3	3B	Screenings and Grit Transport Equipment Improvements – Replacement in Kind	\$560,000
	5C	Polymer Equipment Upgrades – Replacement and Upgrade of Polymer Equipment	\$820,000
	14C	Dewatering Equipment Control Upgrades – Comprehensive Dewatering System Control Upgrades	\$740,000
4	8B	Granular Activated Carbon Replacement – Replacement with Recycled Reactivated Carbon	\$1,500,000
	9B	Carbon Filter Support Gravel Replacement – Replacement of Support Gravel	\$500,000
5	1B	Electrical System Improvements - Complete Critical Repairs	\$2,360,000
	17B	Lighting Improvements – Needs Assessment and Lighting Improvements	\$250,000
	6B	Disinfectant Dosage and Location Optimization – Optimize Sodium Hypochlorite Dosage and Location	\$650,000
6	11B	Chemical Coagulant Optimization - Alternate Coagulant	\$1,500,000
	12B	Minimization of Sulfide Formation - Oxidant Addition	\$1,500,000
7	13B	Heating and Ventilation Improvements – Replacement of Critical Heating and Ventilation Equipment	\$1,160,000
8	15B	Backwash Blower Equipment Improvements – Replacement of Blower Equipment	\$300,000
9	16C	Thickened Sludge Building Waterline Replacement – Replacement of Plant Waterline and Process Waterline	\$140,000
	18B	Interior Process Piping Replacement – Needs Assessment and Piping Improvements	\$500,000
Total Project Cost (Rounded)			\$27,000,000