



APPROVAL TO OPERATE

S-3159

Pursuant to paragraph 8(1) of the *Water Quality Regulation - Clean Environment Act*, this Approval to Operate is hereby issued to:

Greater Moncton Wastewater Commission
for the operation of the
TransAqua Wastewater Works

Description of Source:

This Approval covers the discharge of effluent from the locations contained in the Federal Effluent Regulatory Reporting Information System for the following system.

Chemically Assisted Primary Treatment (Mechanical)
WWC: Class II
WWT: Class III

Mailing Address:

355 Hillsborough Road
Riverview, NB
E1B 1S5

Conditions of Approval:

See attached Schedule "A" of this Approval

Supersedes Approval:

S-2694

Valid From:

April 8, 2019

Valid To:

December 31, 2020

Recommended by: _____

Issued by: _____

for the Minister of Environment and Local Government

04 April 2019

Date

SCHEDULE "A"**A. DEFINITIONS**

1. **"Accredited"** means accreditation to ISO/IEC 17025 by the Standards Council of Canada (SCC), the Canadian Association for Laboratory Accreditation Inc. (CALA), or accreditation to ISO/IEC 17025:2005 from another body that is recognized to grant such accreditation per ISO/IEC 17011 criteria.
2. **"Acutely Lethal"** means that the effluent at 100% concentration kills, during a 96-hour period, more than 50% of the rainbow trout subjected to it.
3. **"Approval Holder"** means the name listed on the Certificate page of this Approval.
4. **"Authorization Officer"** means the Manager of the Permitting North Section of the Department of Environment and Local Government, and includes any person designated to act on the Manager's behalf.
5. **"Average Daily Volume"** means a calculation of the sum of the daily volumes of influent or effluent and dividing that sum by the number of days in that calendar year.
6. **"CBOD" or "Carbonaceous Biochemical Oxygen Demanding Matter"** means the carbonaceous matter that consumes, by biochemical oxidation, oxygen dissolved in water.
7. **"Certified"** means a valid certificate of qualification that states the class of the *Operator* issued by the Minister of the New Brunswick Department of Post-Secondary Education, Training and Labour.
8. **"Deleterious Substances"** means the following substances or classes of substances as carbonaceous biochemical oxygen demanding matter, suspended solids, total chlorine, and un-ionized ammonia.
9. **"Environmental Emergency"** means a situation where there has been or will be an unauthorized wastewater deposit at a location other than at the *Final Discharge Point* and/or unplanned bypasses of at least one of the treatment processes normally applied to wastewater in the system. Unauthorized deposits include wastewater overflows that are the result of excessive rainfall or snowmelt.
10. **"ERRIS" or "Effluent Regulatory Reporting Information System"** means the web based application developed by Environment and Climate Change Canada to facilitate the reporting of information as required under Regulations.
11. **"Final Discharge Point"** means the point, other than an *Overflow Point*, of a wastewater works beyond which the *Approval Holder* or operator no longer exercises control over the quality of the wastewater before it is deposited as effluent to the environment.

12. **"Lagoon"** means a wastewater treatment facility where the average period during which wastewater is retained for treatment within the wastewater system is five days or more.
13. **"Operator"** means a person who directs, adjusts, inspects, tests or evaluates an operation or process that controls the effectiveness or efficiency of the wastewater works.
14. **"Overflow Point"** means a point of a wastewater work via which excess wastewater may be deposited in the environment and beyond which the *Approval Holder* or operator no longer exercises control over the quality of wastewater before it is deposited as effluent.
15. **"Point of Entry"** means any point where effluent is deposited in water frequented by fish via the *Final Discharge Point* or an *Overflow Point*.
16. **"Quarter"** in respect of a year, means any of the four periods of three months that begin on the first day of January, April, July and October.
17. **"Suspended Solids"** means any solid matter contained in effluent that is retained on a filter of 2.0 micrometre (μm) or smaller pore size.
18. **"Total Residual Chlorine"** means the sum of free chlorine and combined chlorine, including inorganic chloramines.
19. **"Transitional Authorization"** means the permit for depositing effluent that contains any of the *Deleterious Substances* via the *Final Discharge Point*.
20. **"Transitional Authorization Plan"** means a plan for the modifications to be made to the wastewater system, including a description of the modifications to be made to its processes and schedule for implementation

B. TERMS AND CONDITIONS

EMERGENCY REPORTING

21. Immediately following the discovery of an *Environmental Emergency*, a designate representing the *Approval Holder* shall notify the Environment and Climate Change Canada's National Environmental Emergencies Centre (NEEC) **until personal contact is made** and provide all information such as: location in latitude and longitudes, flow, time and a brief description known about the *Environmental Emergency*.

The telephone number for **Environment and Climate Change Canada's NECC** is **1-800-565-1633**.

22. **Within five (5) days** of the time of initial notification, a copy of a Detailed Emergency Report shall be e-mailed or faxed to the Wastewater Approvals Coordinator or Engineer responsible for the regulation of the Approval Holder's wastewater works. The Detailed Emergency Report shall include, as a minimum, the following: i) a description of the problem that occurred; ii) a description of the impact that occurred; iii) a description of what was done to minimize the impact; and iv) a description of what was done to prevent recurrence of the problem.

TEMPORARY BYPASS AUTHORIZATION

23. The *Approval Holder* shall apply to the *Authorization Officer* for a temporary authorization to bypass at least one of the treatment processes normally applied to wastewater in the system. An application **must be made at least 45 days before the day** on which the bypass is required, in the form and format provided in the *ERRIS*.

EFFLUENT PERFORMANCE STANDARDS

24. The *Approval Holder* shall ensure that the concentration of contaminants in the effluent deposited via the *Final Discharge Point* of the wastewater works does not exceed the limits as prescribed in the *Transitional Authorization*.
25. The *Approval Holder* shall ensure that the maximum concentration of contaminants in the effluent deposited via the *Final Discharge Point* of the wastewater works does not exceed a maximum of 1.25 mg/L of un-ionized ammonia, expressed as nitrogen (N) at $15^{\circ}\text{C} \pm 1^{\circ}\text{C}$.
26. The *Approval Holder* shall **immediately** apply to the *Authorization Officer*, in the form and format specified by the *ERRIS*, if any samples of the effluent deposited via the *Final Discharge Point* contain a calculated concentration of un-ionized ammonia that is greater than or equal to 1.25 mg/L, expressed as nitrogen (N) at $15^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

27. For systems that the *Average Daily Volume* of effluent calculated in Condition 28 is greater than or equal to 5,000 m³, the *Approval Holder* shall ensure the average concentration of *Total Residual Chlorine* in the effluent deposited via the *Final Discharge Point* does not exceed 0.02 mg/L if chlorine, or one of its compounds, was used in the treatment of wastewater. For all other systems, where the the *Average Daily Volume* of effluent calculated in Condition 28 is less than 5,000 m³, the *Approval Holder* shall ensure the average concentration of *Total Residual Chlorine* in the effluent deposited via the *Final Discharge Point* does not exceed 0.02 mg/L **by January 1st, 2021**, if chlorine, or one of its compounds, was used in the treatment of wastewater.

MONITORING AND SAMPLING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

28. The *Approval Holder* shall, for each calendar year, calculate and record the *Average Daily Volume* of effluent deposited via the *Final Discharge Point*. The volume of effluent during each day must be determined by using monitoring equipment that provides:
- i. A continuous measure of the volume of influent or effluent or a measure of the rate of flow of the influent or effluent upon which that daily volume of effluent may be estimated; or,
 - ii. A continuous measure of the volume of influent or effluent if the *Average Daily Volume* measured during the previous calendar year is greater than 2,500 m³.
29. The *Approval Holder* shall collect monitoring samples for the following parameters in accordance with the requirements of Condition 30.
- i. The concentration of *CBOD*;
 - ii. The concentration of *Suspended Solids*; and,
 - iii. The concentration of un-ionized ammonia.

30. The *Approval Holder* shall collect monitoring samples at the *Final Discharge Point* of the type and at the frequency indicated below based on the *Average Daily Volume* of effluent calculated in Condition 28:

<i>Average Daily Volume</i> (m ³)	Treatment Type	Type of Sample to be Taken	Monitoring Frequency	Calculating Period¹	Reporting Frequency
less than 2,500	<i>Lagoon</i>	Grab or composite	Quarterly, but at least 60 days after any other sample	Annual	Annual
	Mechanical	Grab or composite	Monthly, but at least 10 days after any other sample	Quarterly	Quarterly
greater than 2,500 but less than or equal to 17,500	<i>Lagoon</i>	Grab or Composite	Every two weeks, but at least seven days after any other sample	Quarterly	Quarterly
	Mechanical	Composite			
greater than 17,500 but less than or equal to 50,000	<i>Lagoon</i>	Grab or Composite	Weekly, but at least five days after any other sample	Monthly	Quarterly
	Mechanical	Composite			
Greater than 50,000	<i>Lagoon</i>	Grab or Composite	Three days per week, but at least one day after any other sample	Monthly	Quarterly
	Mechanical	Composite			

¹ The average must be determined for *CBOD* and *Suspended Solid* and the maximum must be determined for Un-ionized Ammonia

31. The *Approval Holder* shall ensure that the Effluent Monitoring Plan, based on the wastewater works' Environmental Risk Assessment, is approved by the *Authorizations Officer*. The *Approval Holder* shall follow the monitoring requirements outlined in the approved Effluent Monitoring Plan.
32. The *Approval Holder* shall calibrate the flow monitoring equipment at least once in every calendar year and at least five months after a previous calibration.
33. The *Approval Holder* shall ensure that the monitoring equipment is capable to determine the volume or rate of flow with a margin of error of $\pm 15\%$.
34. The *Approval Holder* shall ensure that all samples are collected using the methods described in the latest edition of the ISO 5667-10, Water quality - Sampling - Part 10: Guidance on sampling of waste waters.
35. The *Approval Holder* shall ensure that all parameters that are required to be analysed by this Approval, are analysed by *Accredited* laboratories whose accreditation includes the analytical method used to make the determination.

36. The *Approval Holder* shall ensure that all equipment used for monitoring parameters required by this Approval is calibrated in accordance with manufacturer's recommendations.

OVERFLOW MANAGEMENT

37. The *Approval Holder* shall maintain a long term plan to reduce combined sewer overflows and reduce overflows from infiltration. The plan must follow, as a minimum, the *Authorization Officer's* CSO/SSO Long-Term Control Plan Guidelines.
38. The *Approval Holder* shall ensure that all lift stations are designed to prevent the release of floatable materials.

OPERATOR CERTIFICATION

39. Pursuant to Section 19 of the *Water Quality Regulation*, the Minister gives notice that the *Approval Holder* shall employ and have available the following *Certified Operators* based on the Class of the wastewater works listed on the Certificate page of this Approval:

Treatment Class	Wastewater Treatment (WWT) <i>Certified Operator</i>	Collection Class	Wastewater Collection (WWC) <i>Certified Operator</i>
I	Minimum one Class I	I	None
II	Minimum one Class II and one Class I	II	One Class I
III	Minimum one Class III and one Class II	III	One Class I
IV	Minimum one Class IV and one Class III	IV	One Class I

RECORD KEEPING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

40. The *Approval Holder* shall record and retain for a period of five years the following information and make it available to the *Department* upon request:
 - a. The date of each day when wastewater effluent was not discharged via the *Final Discharge Point* (if applicable);
 - b. For those days when effluent was deposited via the *Final Discharge Point*:
 - i. the daily volume deposited, in m^3 , if that volume is yielded by a continuous measure, or
 - ii. the estimated daily volume deposited, in m^3 , in any other case, and the results of the calculation and measurement used in the estimation, as outlined in Condition 28(i);
 - c. For all discharges from each *Overflow Point*, including those that were directly caused by excessive rain or snow melt:
 - i. the date of each day on which effluent was deposited via the *Overflow Point*,
 - ii. for each of those days, the duration or estimated duration, expressed in hours, of the deposit, along with an indication of whether it is the duration or an estimated duration,
 - iii. the daily volume deposited in m^3 if that volume is yielded by a continuous measure, or an estimate of the daily volume, in m^3 in any other case;
 - d. For all monitoring equipment used to determine the volume or rate of flow:
 - i. A description, including the type,
 - ii. The manufacturer's specifications, the year of manufacture and the model number,
 - iii. the date on which the equipment was calibrated and its degree of accuracy after each calibration,
 - iv. The date the equipment was installed and if applicable, the date on which it ceased to be used for monitoring and on which it was replaced;
 - e. For each monitoring sample determination required by Condition 30, as well as any additional sample determinations made by an *Accredited* laboratory:
 - i. the results of such determinations for each of the parameters listed in Condition 29,
 - ii. a statement as to whether the sample is a grab sample or a composite sample and the date on which the sample was taken;
 - f. All monitoring sample results for each parameter taken as part of the Effluent Monitoring Plan;
 - g. All monitoring sample results required by Schedule "B", if applicable; and,
 - h. A list identifying the *Operator(s)* and indicating the certification level of each *Operator(s)*.

REPORTING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

41. If the information provided in the identification report changes, the *Approval Holder* shall in the form and format provided by the *ERRIS* update and notify the *Authorization Officer* no later than **45 days after the change**.
42. If the *Approval Holder* becomes aware that the information provided in an application for *Transitional Authorization* contains errors, they must, **without delay**, send a notice to the *Authorization Officer*.
43. If the *Approval Holder* changes a *Transitional Authorization Plan*, they shall, **without delay**, provide the *Authorization Officer* with the changed plan, along with a schedule to implement it.
44. A *Transitional Authorization* expires at the end of a given calendar year, quarter or month in accordance with Condition 30 if the effluent deposited via the *Final Discharge Point* of the wastewater system was not *Acutely Lethal* and met the conditions for authorization set for *Deleterious Substances* during:
 - i. The given year;
 - ii. That given quarter and the three quarters immediately before that given quarter during which effluent was deposited via the *Final Discharge Point*; or,
 - iii. That given month and each of the 11 months immediately before that given month during which effluent was deposited via the *Final Discharge Point*.

45. The *Approval Holder* shall submit to the *Authorization Officer*, in the form and format specified by the *ERRIS*, a report for the previous reporting period:
- i. **within 45 days of the end of each year**, with the period starting on the first day of January each year, for a *Lagoon* with an *Average Daily Volume* of effluent less than 2,500 m³/d; or,
 - ii. **within 45 days of the end of each quarter**, with the first *Quarter* starting on the first day of January each year, for all other wastewater works.

The report must summarize the following:

- a. The number of days during which effluent was deposited;
 - b. The volume of effluent that was deposited, expressed in m³;
 - c. The average *CBOD* due to the quantity of *CBOD* matter in the effluent;
 - d. The average concentration of *Suspended Solids* in the effluent;
 - e. The results of the *Acutely Lethal* toxicity tests; and,
 - f. If a temporary bypass authorization was issued.
46. The *Approval Holder* shall submit to the *Authorization Officer* **within 45 days of the end of each year**:
- a. All test results completed as part of the approval Effluent Monitoring Plan required in Condition 31;
 - b. A summary report of any other *Environmental Emergencies* that were reported through the Emergency Reporting procedure described in this Approval; and,
 - c. All monitoring sample results required by Schedule “B”, if applicable.



Prepared by: _____
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Authorizations Branch