

**Ministry of the Environment,
Conservation and Parks**

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**

Environmental Permissions
Branch

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December 16, 2021

Northern Waterworks Inc.
104 Howey St, Red Lake, ON
POV 2M0

Dear Mr. Nicholas Kyle

RE: Season Average Effluent Sampling for Cochenour Lagoon ECA #9838-9Q7K9B

We are in receipt of your email dated December 8, 2021 regarding the request to change effluent objectives and limit reporting from a monthly average concentration to a seasonal average effluent concentration across the entire discharge event. We concur with the aforementioned request and are granting concurrence via this letter under ECA 9838-9Q7K9B to allow effluent objectives and limits to be reported as a seasonal average effluent concentration.

For the purposes of the approval, a "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required", and "Seasonal Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured, or both, during a seasonal discharge period. The discharge period will remain as outlined in ECA 9838-9Q7K9B.

We wish to remind you that all other conditions under ECA 9838-9Q7K9B dated November 17, 2014 remain in effect.

Sincerely,



Aziz Ahmed, P.Eng.
Manager, Water and Wastewater Permissions Section

cc: Aaron Causyn, DWECD – Thunder Bay District Office

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9838-9Q7K9B

Issue Date: November 17, 2014

The Corporation of the Municipality of Red Lake
Post Office Box, No. 1000
Balmertown, Ontario
P0V 1C0

Site Location: Cochenour Lagoon
Mining Claim KRL 7462, geographic township of Dome
Red Lake Municipality, District of Kenora
P0V 1L0

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Expansion of the existing Cochenour Sewage Lagoons with a Rated Capacity of 767 m³/d, located in the Municipality of Red Lake, District of Kenora, consisting of the following:

PROPOSED WORKS**Sewage Stabilization Pond**

- construction of a lagoon cell (Cell #3) with a total storage capacity of 54,870 cubic meters, to be located on the northwest side of the existing lagoon facility, to operate as secondary treatment cell in conjunction with existing primary Cell #1 and existing primary Cell #2 .
- Installation of a new cross connection structure (new overflow discharge chambers) between the cells allows:
 - existing Cell #1 to empty into existing Cell #2; and
 - existing Cell #2 to empty into new Cell #3.
- Replacement of the existing 200 mm diameter HDPE pipe discharge pipe with 300 mm diameter pipe.
- Installation of optional chemical Phosphorus removal system (batch dosage) to be implemented when required.

PREVIOUS WORKS

Effluent Discharge Re-alignment

- one (1) 1200 mm diameter manhole (MH 1) receiving effluent through a 300 mm diameter pipe from the lagoon outlet chamber;
- one (1) 200 mm diameter HDPE pipe, approximately 940 m long, extending from MH 1 through MH 2 and MH 3, discharging to a ditch described below;
- one (1) approximately 335 m long lined ditch with side slopes of 2H:1V and 2.0 m wide bottom, receiving stormwater runoff from Red Lake Airport, extending from the end of the 200 mm diameter pipe described above to Dam 5 described below;
- one (1) berm with 2.0 m crest width and side slopes of 2H:1V and a depth of approximately 3.0 m constructed at the Dam 5 to divert sewage flow Cochenour Tailings Facility to the diversion outfall pipe described below;
- one (1) 1000 mm diameter galvanized steel pipe, approximately 760 m long, crossing Highway (HWY) 125 and running along the edge of the Cochenour Tailings Facility, equipped with one (1) manually operated sluice gate valve installed at the upstream end of the 1000 mm diameter culvert to contain potential emergency fuel spills from the Airport, and two (2) 1500 mm diameter manholes, discharging to small unnamed creek downstream of Dam 3 and then into McKenzie Channel.

Sanitary Sewers

STREET	FROM	TO
Easement	Murdock Street	Approx. 17 m North of Murdock Street
Murdock Street	Approx. 70 m East of Edward Avenue (Easement)	Approx. 200 m West of Edward Avenue (HWY #125 Crossing)
HWY #125 Crossing and Easement	Murdock Street	Service Road
Service Road	Easement	Approx. 180 m West of HWY #125 Crossing and Easement
Easement	Approx. 285 m North-westerly (Main Sewage Pumping Station)	Service Road
Easement at Lakeview Crescent	HWY #125	Approx. 180 m North (Easement)
Easement	Lakeview Crescent	Lakeview Avenue
Lakeview Avenue	Williams Street	Approx. 65 m North of Williams Street
Cochenour Crescent	Approx. 65 m North of Williams Street	Approx. 470 m North and East of Cul-de-Sac

Sanitary Forcemain

STREET	FROM	TO
HWY #125	Approx. 110 m West of Lakeview Crescent (Main Sewage Pumping Station)	Murdock Street
Murdock Street	HWY #125	Approx. 70 m East of Edward Avenue (Easement)
Easement	Murdock Street	Approx. 1210 m East and Northeast (Waste Stabilization Pond)

Main Sewage Pumping Station

- One (1) raw sewage pumping station located on the south side of HWY #125 equipped with two (2) 25.3 L/sec submersible raw sewage pumps, an emergency overflow to the McKenzie Channel of Red Lake, an emergency forcemain by-pass chamber, an emergency standby diesel generator set and all necessary appurtenances and controls;

Sewage Stabilization Pond

- Two (2) seasonal discharge sewage stabilization lagoons with a total storage capacity of 70,187 m³ with effluent discharge via sewer pipes and open ditch into McKenzie Channel of Red Lake;

and other controls, piping, valves, drains, and appurtenances essential for the proper operation of the aforementioned sewage works,

all in accordance with supporting documents listed in Schedule 'B'.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this entire document and any schedules attached to it, and the application;

"Bypass" means diversion of sewage around one or more unit processes within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final effluent sampling location, and discharging to the environment through the Sewage Treatment Plant outfall;

"BOD5" (also known as TBOD) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;

"CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

"Daily Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

"Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;

"*E. Coli* " refers to the thermally tolerant forms of *Escherichia* that can survive at 44.5 degrees Celsius;

"Emergency Situation" includes a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or an unforeseen flow condition that may result in:

- a) danger to the health or safety of any person; or,
- b) injury or damage to any property, or serious risk of injury or damage to any property
- c) treatment process biomass washout.

"EPA" means the *Environmental Protection Act* , R.S.O. 1990, c.E.19, as amended;

"Equivalent equipment" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a named equipment;

"Event" means an action or occurrence, at a given location within the Sewage Treatment Plant that causes a Plant Bypass or Plant Overflow. An Event ends when there is no recurrence of a Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Two Events are separated by at least 12 hours during which there has been no recurrence of a Bypass or Overflow;

"Final Effluent" means sewage discharge via the Sewage Treatment Plant outfall after undergoing the full train of unit processes as listed in the Approval;

"Grab Sample" means an individual sample of at least 1000 millilitres collected in the appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;

"Limited Operational Flexibility" (LOF) means any modifications that the Owner is permitted to make to the Works under this Approval;

"Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works";

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"Monthly Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month;

"Owner" means The Corporation of the Municipality of Red Lake and its successors and assignees;

"OWRA" means the Ontario Water Resources Act , R.S.O. 1990, c. O.40, as amended;

"Plant Overflow" means a discharge to the environment from the Sewage Treatment Plant at a location other than the plant outfall or into the plant outfall downstream of the Final Effluent sampling location;

"Previous Works" means those portions of the sewage works previously constructed and approved under an Approval;

"Proposed Works" means the sewage works described in the Owner's application, this Approval, to the extent approved by this Approval;

"Rated Capacity" means the Average Daily Flow for which the Works are approved to handle;

"Sewage Treatment Plant" means the entire sewage treatment and effluent discharge facility;

"Water Supervisor" means the Water Supervisor of the Thunder Bay and Kenora offices of the Ministry or designate; and

"Works" means the sewage works described in the Owner's application and this Approval, including the Proposed Works, Previous Works and the modifications made under Limited Operational Flexibility.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

- (1) The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
- (3) Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
- (4) Where there is a conflict between the documents listed in the Schedule submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
- (5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

2. EXPIRY OF APPROVAL

This Approval will cease to apply to those parts of the Proposed Works which have not been constructed within **five (5) years** of the date of this Approval.

3. CHANGE OF OWNER

- (1) The Owner shall notify the Water Supervisor and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
 - (a) change of Owner;
 - (b) change of address of the Owner;
 - (c) change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act , R.S.O. 1990, c.B17 shall be included

in the notification to the Water Supervisor;

(d) change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C39 shall be included in the notification to the Water Supervisor;

(2) In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the Water Supervisor and the Director.

4. BYPASSES

(1) Any Bypass or Plant Overflow is prohibited, except:

(a) in an Emergency Situation;

(b) where the approved design and operation of the Works provides for Bypasses / Plant Overflows to be triggered under certain flow conditions and those conditions have been met and the Plant Peak Flow Rate is not exceeded;

(c) where the Bypass / Plant Overflow is a direct and unavoidable result of a planned maintenance procedure, the Owner notified the Water Supervisor 15 days prior to the Bypass and the Water Supervisor has given written consent of the Bypass; and

(d) where the Bypass / Plant Overflow is planned for research or training purposes, the discharger notified the Water Supervisor 15 days prior to the Bypass / Plant Overflow and the Water Supervisor has given written consent of the Bypass / Plant Overflow.

(2) The Owner shall forthwith notify the Spills Action Centre (SAC) and the Medical Officer of Health of all Bypass and Plant Overflow Events except the events occurring under subsection (1)(b). This notice shall include, at a minimum, the following information:

(a) the date, time, and duration of the Event;

(b) the location of the Event;

(c) the measured or estimated volume of the Event;

(d) the reason for the Event; and

(e) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

(3) The Owner shall submit Bypass and Plant Overflow Event Reports to the Ministry's local office on a quarterly basis, no later than each of the following dates for each calendar year: February 14, May 15, August 14, and November 15. Event Reports shall be in an electronic format specified by the Ministry. In each Event Report the Owner shall include, at a minimum, the following information on any Events that occurred during the preceding quarter:

(a) the date of the Event(s);

(b) the measured or estimated volume of the Event(s);

(c) the duration of the Event(s);

(d) the location of the Event(s);

- (e) the reason for the Event(s); and
- (f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

(4) The Owner shall use best efforts to collect a representative sample consisting of a minimum of two (2) grab samples of the By-pass / Plant Overflow and have it analyzed for parameters outlined in Condition 6 (with BOD5 instead of CBOD5 preferably, and including *E. Coli*), using the protocols specified in Condition 8, one at the beginning of the Event and the second approximately near the end of the Event, to best reflect the effluent quality of such By-pass or Plant Overflow.

(5) The Owner shall maintain a logbook of all Plant Bypasses and Plant Overflows, which shall contain, at a minimum, the types of information set out in subsection 2(a) to 2(e) in respect of each Bypass and Plant Overflow.

5. EFFLUENT OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 1 - Effluent Objectives	
Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
Column 1	Column 2
Total Phosphorus	1.0
Total Ammonia Nitrogen	10.0

(2) The Owner shall use best efforts to:

- (a) maintain the pH of the effluent from the Works within the range of 6.0 to 9.0 inclusive, at all times;
- (b) operate the Works within the Rated Capacity of the Works;
- (c) ensure that the effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.

(3) Stipulation made in Conditions 6.2(a) for the effluent limits applies for the effluent objective.

(4) The Owner shall, in the event of the effluent reaching the Effluent Objective concentrations set out in Table 1 for two consecutive seasonal discharge windows, notify the District Manager as soon as reasonably possible and submit to the District Manager, within **sixty (60) days**, a corrective action plan.

(5) The Owner shall include in all reports submitted in accordance with Condition 9 a summary of the efforts made and results achieved under this Condition.

6. EFFLUENT LIMITS

(1) The Owner shall operate and maintain the Works such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 2 - Effluent Limits	
Effluent Parameter	Average Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	25.0
Total Suspended Solids	25.0
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times	

(2) For the purposes of determining compliance with and enforcing subsection (1):

- (a) The Monthly Average Concentration of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).
- (b) The pH of the effluent shall be maintained within the limits outlined in subsection (1), at all times.

(3) Paragraphs (a) and (b) of subsection (2) shall apply upon the issuance of this Approval.

7. OPERATION AND MAINTENANCE

(1) The Owner shall exercise due diligence in ensuring that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of this Approval and the Act and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.

(2) The Owner shall prepare an operations manual within **six (6) months** of the issuance date of this Approval, that includes, but not necessarily limited to, the following information:

- (a) operating procedures for routine operation of the Works;
- (b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
- (c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;
- (d) procedures for the inspection and calibration of monitoring equipment;

(e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the Ministry's local office; and

(f) procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

(3) The Owner shall maintain the operations manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

(4) The Owner shall provide for the overall operation of the Works with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.

(5) The Owner shall operate the Works such that discharge is conducted on a semi-annual discharge basis with the effluent being discharged in the spring and the fall as follows:

spring: discharge commencing a minimum of two weeks after the liquid surface in the lagoon has become free of ice cover and terminating on or before June 30th.

fall: discharge commencing not earlier than September 15th and terminating no later than November 30th.

(6) The Owner shall maintain a record of the dates which discharge occurred, as well as the daily volume of effluent discharged.

(7) To ensure that no short-circuiting of untreated effluent occurs, no discharge of raw sewage to a lagoon cell shall occur during periods of discharge from that cell.

(8) Effluent being discharged from the lagoon should be drawn from no lower than 0.3 m above the cell bottom to minimize the risk of sludge being discharged.

(9) Effluent shall not be discharged from the lagoon at any time during periods of ice cover on the lagoon.

8. EFFLUENT MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works, carry out the following monitoring program:

(1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) For the purposes of this condition, the following definitions apply:

- (a) Daily means once each day;
- (b) Twice-Weekly means two time each week;
- (c) Weekly means once each week;
- (c) Monthly means once every month;

(3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 3 - Raw Sewage Monitoring (Inlet Works)		
Parameters	Sample Type	Frequency
BOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Kjeldhal Nitrogen	Grab	Monthly

Table 4 - Waste Stabilization Pond Monitoring Prior to Discharge (Samples to be collected from the cell to be discharged)		
Parameters	Sample Type	Frequency
CBOD5	Grab	At least one sample
Total Suspended Solids	Grab	At least one sample
Total Phosphorus	Grab	At least one sample
Total Ammonia Nitrogen	Grab	At least one sample
pH	Grab	At least one sample
Temperature	Grab	At least one sample

Table 5 - Final Effluent Monitoring (Final Effluent Outlet To Open Ditch)		
Parameters	Sample Type	Frequency
CBOD5	Grab	Twice-Weekly*
Total Suspended Solids	Grab	Twice-Weekly*
Total Phosphorus	Grab	Twice-Weekly*
Total Ammonia Nitrogen	Grab	Twice-Weekly*
<i>E. Coli</i>	Grab	Weekly*
pH	Grab	Twice-Weekly*
Temperature	Grab	Twice-Weekly*

Note: *Samples of final effluent from the sewage works shall be collected from the designated sampling location during each seasonal discharge period;

(4) Establish a permanent groundwater monitoring well(s) down-gradient of the lagoon cells and collect samples at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 6: Groundwater Monitoring (at monitoring well(s) installed down-gradient of the lagoon cells number & location of wells subject to approval by Water Supervisor)		
Parameters	Sample Type	Frequency
Total Organic Carbon	Grab	Annually
Total Phosphorus	Grab	Annually
Total Kjeldahl Nitrogen	Grab	Annually
Nitrite	Grab	Annually
Nitrate	Grab	Annually
<i>E. Coli</i>	Grab	Annually

(5) Prior to the start up of the Proposed Works, background groundwater quality must be established by collecting one set of groundwater samples and having them analyzed for the parameters outlined in Table 6.

(6) Upon commencement of operation of the Proposed Works, groundwater quality must be monitored annually by collecting samples from the monitoring well(s) and having them analyzed for the parameters outlined in Table 6.

(7) If deemed necessary, the Water Supervisor may modify any aspect of the monitoring program.

(8) Surface water sampling in the receiving waterbody (Red Lake) may be required at the discretion of the Water Supervisor to evaluate impacts of the effluent discharge on aquatic resources.

(9) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)", as amended from time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (20th edition), as amended from time to time by more recently published editions;

(10) The Owner shall install and maintain a continuous flow measuring device, to measure the flow rate of raw sewage into the Works with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flow rate for the entire design range of the flow measuring device, and record the flow rate at a

daily frequency.

(11) The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

9. REPORTING

(1) **One (1) week** prior to the start up of the operation of the Proposed Works, the Owner shall notify the Water Supervisor (in writing) of the pending start up date.

(2) **Ten (10) days** prior to the date of a planned Bypass being conducted pursuant to Condition 4 and as soon as possible for an unplanned Bypass, the Owner shall notify the Water Supervisor (in writing) of the pending start date, in addition to an assessment of the potential adverse effects on the environment and the duration of the Bypass.

(3) The Owner shall report to the Water Supervisor or designate, any exceedence of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within **seven (7) days** of the exceedence.

(4) In addition to the obligations under Part X of the *Environmental Protection Act*, the Owner shall, within ten **(10) working days** of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the Water Supervisor describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

(5) The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

(6) The Owner shall prepare and submit a performance report to the Water Supervisor on an annual basis, within **ninety (90) days** following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;

(b) a description of any operating problems encountered and corrective actions taken;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;

(d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;

- (e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and
 - (f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5;
 - (g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
 - (h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
 - (i) a summary of all Bypass, spill or abnormal discharge events;
 - (j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule 'A', Section 1, with a status report on the implementation of each modification;
 - (k) a report summarizing all modifications completed as a result of Schedule 'A', Section 3; and
 - (l) any other information the Water Supervisor requires from time to time.
- (6) The Owner shall, within thirty (30) calendar days of issuance of this Approval, submit a Municipal and Local Services Board Sewage Works Profile Information Form, and shall resubmit the updated document every time a notification is provided to the Water Supervisor in compliance with requirements of change of ownership under this Approval.

10. LIMITED OPERATIONAL FLEXIBILITY

- (1) The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Sewage Works", included under Schedule 'A' of this Approval, as amended.
- (2) Sewage works proposed under Limited Operational Flexibility shall adhere to the design guidelines contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.
- (3) The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.
- (4) For greater certainty, the following are not permitted as part of Limited Operational Flexibility:
 - (a) Modifications to the Works that result in an increase of the approved Rated Capacity of the Works;

(b) Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;

(c) Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;

(d) Modifications to the Works approved under s.9 of the EPA, and

(e) Modifications to the Works pursuant to an order issued by the Ministry.

(5) Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.

(6) If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, as deemed necessary in consultation with the Water Supervisor, provide a revised copy of this plan to the local fire services authority prior to implementing Limited Operational Flexibility.

(7) For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the Environmental Protection Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, Lake Simcoe Protection Act and Greenbelt Act.

(8) Prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the Water Supervisor.

SCHEDULE 'A'

Limited Operational Flexibility Criteria for Modifications to Municipal Sewage Works

1. The modifications to sewage works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval, and require the submission of the Notice of Modifications. If there is a conflict between the sewage works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.

1.1 Sewage Pumping Stations

- a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.
- b. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200mm

1.2 Sewage Treatment Process

- a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
- b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
- c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.
- d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the approved Rated Capacity, and may have adverse effects to the effluent quality or location of the discharge.
- e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same or exceeded. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, dewatering

equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

1.3 Sewage Treatment Plant Outfall

- a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

1.4 Sanitary Sewers

- a. Pipe relining and replacement with similar pipe size within the Sewage Treatment Plant site, where the nominal diameter is not greater than 1,200mm.

1.5 Pilot Systems

- a. Installation of pilot systems for new or existing technologies provided that:
 - i. any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,
 - ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and
 - iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and Water Supervisor three months after completion of the pilot project.
2. Sewage works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.
3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.
4. The modifications noted in section (3) above are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.

SCHEDULE 'B'

Environmental Compliance Approval (ECA) supporting documents:

1. Application for Approval of Municipal and Private Sewage Works submitted by the Corporation of the Municipality of Red Lake dated December 7, 2004, and design specifications and drawings prepared by Lynx North Engineering Inc., Thunder Bay;
2. Report and preliminary plans prepared by W. L. Wardrop and Associates Limited, Engineering Consultants;
3. Environmental Compliance Approval Application for sewage Works dated April 13, 2013 signed by Brian Anderson, CAO of the Municipality of Red Lake and cover letter submitted by Jennifer Finlayson for Greg Parent, P.Eng. of Keewatin-Aski Consulting, dated April 15, 2013;
4. A document entitled "Design Brief, Cochenour Lagoon Expansion", dated February 2013 and prepared by Keewatin-Aski Consulting;
5. A set of engineering drawings entitled "The Corporation of Municipality of Red Lake - Cochenour Lagoon Expansion" dated February 2013 and prepared by Keewatin-Aski Consulting;
6. An email dated July 9, 2013 from Todd Olson of the Corporation of Municipality of Red Lake to Carolyn Lacroix of the Ontario Ministry of the Environment (MOE); and
7. An email dated August 30, 2013 from Greg Parent of P.Eng., of Keewatin-Aski Consulting to Youssouf Kalogo, P.Eng., of MOE.

Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE WATER SUPERVISOR (FOR MUNICIPAL) OR DISTRICT MANAGER (FOR NON-MUNICIPAL SYSTEMS)

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number, issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)
ECA Owner		Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

Description shall include:

1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
 2. Conforms with the Limited Operational Flexibility as per the ECA;
 3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.
- I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.

Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner

I hereby declare that:

1. I am authorized by the Owner to complete this Declaration;
 2. The Owner consents to the modification; and
 3. These modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
 4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.
- I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.

Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval the existence of this Approval.
2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
4. Condition 4 is included to indicate that bypasses of untreated sewage to the receiving watercourse is prohibited, save in certain limited circumstances where the failure to Bypass could result in greater injury to the public interest than the Bypass itself where a Bypass will not violate the approved effluent requirements, or where the Bypass can be limited or otherwise mitigated by handling it in accordance with an approved contingency plan. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Bypass events.
5. Condition 5 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 6 are exceeded.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the McKenzie Channel meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
7. Condition 7 is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the work.

8. Condition 8 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the effluent limits specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.
9. Condition 9 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.
10. Condition 10 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These conditions are also included to ensure that a Professional Engineer has reviewed the proposed modifications and attests that the modifications are in line with that of Limited Operational Flexibility, and provide assurance that the proposed modifications comply with the Ministry's requirements stipulated in the terms and conditions of this Approval, MOE policies, guidelines, and industry engineering standards and best management practices.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5259-9C4JFL issued on October 15, 2013.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 17th day of November, 2014



Edgardo Tovilla
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

HV/

- c: Area Manager, MOECC Kenora Area Office.
- c: DWMD Supervisor, MOECC Thunder Bay District Office.
The Corporation of the Municipality of Red Lake.