

DRAFT - Type B Water Licence S18L3-001
Déliné Got'ine Government – Local Services – Municipal

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Part A: Scope and Definitions

1. Scope:

- a) This Licence entitles the Licensee to use Water and dispose of Waste for the purpose of a municipal undertaking at Déljñę, Northwest Territories. The location of the community is Latitude 65° 11' North, Longitude 123° 26' West.
- b) This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Commissioner in Executive Council under the Act, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.
- c) Compliance with the terms and conditions of this Licence does not relieve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial, or Municipal legislation.

2. Definitions:

In this Licence: S18L3-001

Act – the *Waters Act*, S.G.N.W.T. 2014, C.18.

Analyst – an Analyst designated by the Minister under subsection 65(1) of the Act.

Application – the Renewal Application for Type B Water Licence S12L3-006 as submitted to the Board and all supporting documents.

Board – the Sahtu Land and Water Board established under Part 3 of the *Mackenzie Valley Resource Management Act*;

Closure - the permanent dismantlement of one or more components of the Project with the intent of making the components incapable of its intended use. This includes the removal of associated equipment and structures used in construction or maintenance of the Project.

Construction - any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the Project.

Discharge – the direct or indirect release of any Waters or Waste to the Receiving Environment.

Engineered Structure – any structure or facility related to Water use of the deposit of Waste that is designed and approved by a Professional Engineer.

Freeboard – the vertical distance between Water line and the effective Water containment crest on the upstream slope of a dam or dyke.

Greywater – all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include Toilet Wastes.

Groundwater – all Water in a zone of saturation beneath the land surface, regardless of its origin as defined in the Regulations.

Hazardous Wastes - those Wastes with properties such as flammability, corrosiveness, or inherent toxicity and can pose a variety of risks, from skin damage on contact, to the contamination of ground water, surface water, or soil as a result of leaching into the environment when improperly treated, stored, transported, or disposed of, or otherwise managed;

Inspector – an Inspector designated by the Minister under subsection 65(1) of the Act.

Licensee – the holder of this Licence.

Minister – a duly appointed member of the Executive Council who is responsible for the *Waters Act*.

Modification – in respect to a structure, means a change, other than an expansion, that does not alter the purpose or function of that structure.

Ordinary High Water Mark – the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes, wetlands or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by Water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Professional Engineer – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories in accordance with the *Engineering and Geoscience Professions Act*, and whose professional field of specialization is appropriate to address the components of the Project at hand.

Pumpout Sewage – all Toilet Wastes and/or Greywater collected by means of a vacuum truck for disposal and/or treatment at the Sewage Lagoon.

Receiving Environment – the aquatic environment that receives any deposit or Discharge of Water or Waste, including runoff, from the Project.

Reclamation – the process of returning a disturbed site to its natural state or which prepares it for other productive uses that prevents or minimizes any adverse effects on the environment or threats to human health and safety.

Regulations – Regulations promulgated pursuant to section 63 of the Act.

Seepage – any Waters or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

Sewage – all Toilet Wastes and Greywater.

Sewage Disposal Facilities – the area and engineered structures designed to contain and treat Sewage as described in the Application: Sewage Lagoon Operation and Maintenance Manual dated February 20, 2018 and identified in the Facility Location Map.

Sewage Sludge - comprises a mixture of Water and residual non-stabilized semi-solid material separated from Sewage as a result of natural or other process at the Sewage Waste Disposal Facilities.

Solid Waste Disposal Facilities – the area and associated structures that are under construction and designed to contain solid Wastes as described in the Application and identified in the Facility Locations Map dated March 9, 2018.

Spill - means to allow or accidentally release Waste from containment vessels or structures into the Receiving Environment.

Spill Contingency Plan – a document, developed in accordance with Indian and Northern Affairs Canada's April 2007, *Guidelines for Spill Contingency Planning*, that describes the set of procedures to be implemented to minimize the effects of a Spill or Unauthorized Discharge.

Surveillance Network Program – a monitoring program, established to define environmental sampling and analysis requirements, as detailed in Annex A of this Licence, to collect Water quality data, and to assess discharge quality, Licence compliance, and potential for impacts to the environment.

Temporary Solid Waste Disposal Facility – the area constructed and maintained for the temporary storage of wood waste, domestic wastes and Hazardous Wastes as described in the Application: Solid Waste Disposal Facility Operation and Maintenance Plan dated March 9, 2018 and identified in the Facility Location Map and associated sketch.

Toilet Wastes – all human excreta and associated products but does not include Greywater;

Traditional Knowledge – the cumulative, collective body of knowledge, experience, and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

Unauthorized Discharge – a release or discharge of any Water or Waste not authorized under this Licence.

Waste – any substance defined as Waste by section 1 of the Act.

Waste Disposal Facilities – the area and associated facilities designated for the disposal of Waste, including the Sewage Disposal Facilities, Temporary Solid Waste Disposal Facilities, and Solid Waste

Disposal Facilities as described in the Application and identified in the Facility Locations Map dated March 9, 2018.

Waters – any “waters” as defined by Section 1 of the Act.

Water Intake Infrastructure – the location of Waters supply collection site and associated permanent piping lines used for continuous withdrawal of Waters from Great Bear Lake for municipal purposes.

Water Supply Facilities – comprises the area and associated infrastructure designed to collect, treat, and supply Water for municipal purposes and includes the Water Treatment Plant and the Water Intake Infrastructure as described in Application.

Water Use – a “use” of Waters as defined by Section 1 of the Act.

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Part B: General Conditions

1. The Licensee shall ensure a copy of this Licence is maintained at the municipal office at all times and that all employees conducting work related to any facilities within the scope of this Licence are made aware of the appropriate sections of the Licence.
2. The Licensee shall take every reasonable precaution to protect the environment.
3. In conducting its activities under this Licence, the Licensee shall take every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.
4. All references to policies, guidelines, templates, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise denoted.
5. The Licensee shall ensure all information submitted to the Board:
 - a) Is in a form acceptable to the Board;
 - b) Is in accordance with the Board's, *Document Submission Standards*;
 - c) Includes a section within each submission which identifies where the pertinent requirements of the Licence are addressed; and
 - d) Includes a summary of the revisions made.
6. The Licensee shall ensure management plans are submitted to the Board in a format consistent with the Board's *Standard Outline for Management Plans*.
7. The Licensee shall comply with plans and programs approved pursuant to the conditions of this Licence, including such revisions made as per the conditions of this Licence, and as approved by the Board. All revisions shall be submitted to the Board, for approval, at least 60 days, unless otherwise specified, prior to implementing any proposed updates or changes in the approved plans, manuals or programs.
8. If any submission is not approved by the Board, the Licensee shall revise the submission according to the Board's direction and resubmit it for approval. Each revised submission shall include a brief summary of the revisions made.
9. If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.
10. The Licensee shall comply with the Schedules, which are annexed to and form part of this Licence, and any changes to the Schedules as may be made by the Board.
11. The Licensee shall comply with the **Surveillance Network Program**, which is annexed to and forms part of this Licence, and any changes to the Surveillance Network Program as may be made by the Board.

12. The Schedules, Surveillance Network Program station(s), and any compliance dates specified in the Licence may be changed at the discretion of the Board.
13. Prior to establishing, activating, or moving any Surveillance Network Program station(s), the Licensee shall post sign(s) to identify the Surveillance Network Program station(s). All sign(s) shall be located and maintained to the satisfaction of an Inspector.
14. Within sixty (60) days of issuance of this Licence, the Licensee shall post signs in the appropriate areas to inform the public of Water Supply and Waste Disposal Facilities. All signs shall be located and maintained to the satisfaction of an Inspector.
15. The Licensee shall install, operate, and maintain meters, devices, or other such methods used for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.
16. Beginning March 31, 2019, and no later than every March 31 thereafter, the Licensee shall submit an **Annual Water Licence Report** to the Board. The Report shall be in accordance with Schedule 1.

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Part C: Conditions Applying to Water Use

1. The Licensee shall only obtain fresh Water from the Great Bear Lake using the Water Supply Facilities, unless otherwise approved by the Board.
2. The Licensee shall post a sign to identify the Water intake(s). All signs shall be located and maintained to the satisfaction of an Inspector.
3. The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement and/or entrainment of fish. The screen shall be in accordance with the best practices outlined in the Department of Fisheries and Oceans' *Freshwater Intake End-of-Pipe Screen Guidelines* (1995) and *Fish Screen Design Criteria for Flood and Water Truck Pumps* (2011).
4. The annual quantity of fresh Water withdrawn using the Water Supply Facilities shall not exceed 30,000 cubic metres.
5. The Licensee may obtain Water from an alternate Water supply for use on an emergency basis, upon approval of the Board, when it is not possible to obtain water from the source stated in Part C, Item 1.

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Part D: Conditions Applying to Waste and Water Management

1. The Licensee shall ensure that any unauthorized Wastes associated with this undertaking do not enter any Waters.

Operations and Maintenance of Facilities

2. The Licensee shall comply with the **Sewage Lagoon Operation and Maintenance Manual**, submitted with the Application, once approved.
3. The Licensee shall comply with the **Temporary Solid Waste Facility Operation and Maintenance Plan**, submitted with the Application, once approved.
4. Within one (1) year of issuance of this Licence, the Licensee shall submit to the Board, for approval, an **Operation and Maintenance Plan for the Solid Waste Disposal Facility**, which shall include, but not be limited to, the components set out in the Board's *Operation and Maintenance Plan Templates for Municipal Water Licences: Solid Waste Facility*.
5. Within ninety (90) days of issuance of this Licence, the Licensee shall submit to the Board, for approval, an **Operation and Maintenance Plan for the Water Treatment Plant**, which shall include, but not be limited to, the components set out in the Board's *Operation and Maintenance Plan Templates for Municipal Water Licences: Water Treatment Plant*.
6. The Licensee shall comply with the **Water Treatment Plant Operation and Maintenance Plan**, once approved.
7. The Licensee shall operate and maintain the Waste Disposal Facilities and Water Supply Facilities in such a manner as to prevent structural failure and to the satisfaction of an Inspector.
8. The Licensee shall take measures to minimize or eliminate standing water at the Temporary Solid Waste Disposal Facilities to the satisfaction of an Inspector.
9. The Licensee shall annually review the Operation and Maintenance Plans referred to in Part D, conditions 2, 3, 4, and 5 and, if necessary, make any revisions to reflect changes in design, operation(s), technology, and the results from research and other studies, or as directed by an Inspector or the Board. Revised plans shall include a brief summary of the changes made, and shall be submitted to the Board, for approval, at least sixty (60) days prior to any proposed changes to the requirements in the approved plans.

Inspections of Structures and Facilities

10. The Licensee shall conduct inspections of the Sewage Disposal Facilities, Water Supply, and Solid Waste Disposal Facilities as described in the approved Operation and Maintenance Plans, referred to in Part D, conditions 2, 3, 4, and 5. Records of these inspections shall be made available to the Board or an Inspector upon request.

Discharge Locations and Rates

- 11. The Licensee shall not accept Hazardous Wastes generated by industrial, commercial, and institutional operators at the Waste Disposal Facilities.
- 12. Sewage and solid Waste generated by industrial, commercial and institutional operators working outside of the local government boundaries of Deline shall not be accepted at the Waste Disposal Facilities, unless otherwise authorized in writing by an Inspector.
- 13. The Licensee shall submit written notification to the Board and an Inspector sixty (60) days prior to the removal of sludge from the Sewage Disposal Facilities. The notification shall include a **Sludge Management Plan** that includes, but is not limited to, the following details:
 - a) sludge characterization and monitoring;
 - b) sludge removal and storage location;
 - c) treatment and management of sludge and any excess liquids;
 - d) sampling procedures and approvals; and
 - e) final disposal/end use.

Sludge removal shall not commence until approval is granted by the Board.

Effluent Quality Criteria

- 14. The Licensee shall ensure that all effluent discharged from the Sewage Disposal Facilities at SNP Station location 0555-4 meet the following effluent quality criteria (EQC):

Parameter	Maximum Average Concentration
Total Suspended Solids	100 mg/L
Oil and Grease	5 mg/L and non-visible
BOD ₅	80 mg/L
CBOD ₅	330 mg/L
Faecal Coliforms	< 1x10 ⁴ CFU / 100mL
pH	6-9

CFU = Colony Forming Units

- 15. The Licensee shall complete analysis of the Waters referred to in Part D, Item 16 of this Licence for Biological Oxygen Demand (BOD₅) and Carbonaceous Biological Oxygen Demand (CBOD₅) for a minimum of one (1) year. The study findings, including trend analysis, shall be submitted to the Board for approval and reported in the corresponding Annual Water Licence Report.
- 16. If Water quality data from any sample collected at Surveillance Network Program station 0555-4 exceeds the effluent quality criteria specified in Part D, condition 14, the Licensee shall:
 - a) Notify an Inspector and the Board within 24 hours; and
 - b) Comply with the approved Sewage Lagoon Operation and Maintenance Manual referred to in Part D, condition 2 of this Licence.

Commented [SS1]: Reviewer Comment Requested – EQC carry over from S12L3-006 which were based on the [1992 Guidelines for the Discharge of Treated Municipal Wastewater in the NWT](#).

Part E: Conditions Applying to Construction

1. The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Waste are designed, constructed, and maintained to minimize the escape of Waste to the Receiving Environment.
2. The Licensee shall ensure that all Engineered Structures are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including but not limited to, recommendations regarding field supervision and inspection requirements.
3. The Licensee shall submit a revised schedule for the Project activities upon Board request.

Construction Plans and As-built Reports

4. A minimum of ninety (90) days prior to the commencement of Construction of any structures intended to contain, withhold, divert or retain Waters or Wastes, other than those contemplated in the Spill Contingency Plan, the Licensee shall submit to the Board, **Final Design Drawing** stamped and signed by a Professional Engineer, which notes "issued for construction" or similar phrase.
5. A minimum of ten (10) days prior to the commencement of Construction of the structures referred to in Part F, Item 4, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the Construction superintendent.
6. Within ninety (90) days of the completion of the Construction of the structures referred to in Part F, item 4, the Licensee shall submit to the Board an **As-built Report** stamped and signed by a Professional Engineer which shall include, but not be limited to, the following information:
 - a. Final as-built drawings stamped and signed by a Professional Engineer;
 - b. Documentation of field decisions that deviate from the "issued for construction" designs; and
 - c. Any data used to support these decisions.
7. Within ninety (90) days of issuance of this Licence, the Licensee shall submit to the Board an **As-built Report for the Sewage Lagoon**, stamped and signed by a Professional Engineer.

Part F: Conditions Applying to Modifications

1. The Licensee may, without written approval from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that the following requirements are met:
 - a) The Licensee has notified the Board and Inspector, in writing, of such proposed Modifications at least 60 days prior to beginning the Modifications;
 - b) The Modifications do not place the Licensee in contravention of either the Licence or the Act;
 - c) The Board has not, during the 60 days following notification of the proposed Modifications, informed the Licensee that further information is required or that review of the proposal will require more than 60 days;
 - d) An Inspector has authorized the proposed Modifications and provided a letter of notification to the Board; and,
 - e) The Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part F, item 1, have not been met, may be carried out only with written approval from the Board.
3. Within ninety (90) days of the completion of the Modifications referred to in Part F, item 1, the Licensee shall submit to the Board **as-built drawings** stamped and signed by a Professional Engineer, which notes "final" or similar phrase.

Part G: Conditions Applying to Spill Contingency Planning

1. The Licensee shall comply with the Spill Contingency Plan, submitted with the Application, once approved.
2. The Licensee shall annually review the Spill Contingency Plan and, if necessary, make any revisions to reflect changes in operations, technology, chemicals or fuels, or as directed by an Inspector or the Board. Revised Plans shall include a brief summary of the changes made, and shall be submitted to the Board, for approval, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan.
3. If, during the term of this Licence, a Spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
 - a) Implement the approved Spill Contingency Plan;
 - b) Report the incident immediately via the 24-hour NWT Spill Report Line at (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593;
 - c) Report each Spill and Unauthorized Discharge to the Board and an Inspector within 24 hours; and
 - d) Submit within thirty (30) days of an Unauthorized Discharge or incident reported under Part G, condition 3b), a detailed report to the Board and an Inspector. The report shall include descriptions of root causes, response actions and any changes to procedures to prevent similar occurrences in the future.
4. All Spills and Unauthorized Discharges of Water or Waste shall be reclaimed to the satisfaction of an Inspector.

Part H: Conditions Applying to Closure and Reclamation

1. The Licensee shall act in accordance with the approved **Final Closure and Reclamation Plan**, Version 2.0 dated September 26, 2014, and shall review the Plan annually and, if necessary, make any revisions to reflect changes in operations, technology, the results of Reclamation and/or other studies, or as directed by the Board. Revised Plans shall be submitted to the Board, for approval, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan or as requested by the Board.
2. The Licensee shall complete Reclamation activities within the time schedule specified in the Plan, or as subsequently revised and approved by the Board
3. Notwithstanding the time schedule referred to in the Plan, the Licensee shall endeavor to carry out progressive Reclamation of disturbed areas as soon as is reasonably practical.
4. Upon implementation of the Closure and Reclamation Plan, the Licensee shall provide updates to the Board of all Closure and Reclamation activities within the Annual Report as described in Part B, condition 16.

Signed the behalf of the Sahtu Land and Water Board

Witness

A/Chair

Schedule 1 Annual Water Licence Report

Attached to Water Licence S18L3-001

The **Annual Water Licence Report** referred to in Part B, condition 16 of this Licence shall include, but not be limited to the following information:

1. The monthly and annual quantities in cubic metres (m³) of fresh Water obtained from all sources;
2. The monthly and annual quantities in cubic metres (m³) of each and all Waste discharged;
3. The annual quantities in cubic metres (m³) of sludge in the Sewage Lagoon;
4. The monthly and annual quantities in cubic metres (m³) of solid Waste removed from the Waste Disposal Facilities;
5. The monthly and annual quantities in cubic metres (m³) of all Sewage and solid Waste deposited into the Waste Disposal Facilities by commercial, industrial, and institutional operators working outside the municipal boundaries of the Deline;
6. A **Surveillance Network Program Report** as required under the Surveillance Network Program in accordance with reporting requirements in Part A, condition 2 of Annex A of this Licence;
7. A list and description of all **Spills and Unauthorized Discharges** that occurred during the previous calendar year, including the date, NWT spill number, volume, location, and summary of the circumstances and follow-up actions taken, and the status (i.e. open or closed), in accordance with the reporting requirements referred to in Part G of this Licence;
8. An outline of any **Spill training and/or other operator training** carried out;
9. A description of **Construction, Modifications** and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures, and an outline of any work anticipated for the next year;
10. A description of any **Closure and Reclamation work** completed during the year and an outline of any work anticipated for the next year;
11. A description of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and
12. A description of any **studies requested by the Board** that relate to Waste Disposal, Water Use, or reclamation, and a brief description of any future studies planned;
13. Any updates or revisions to the:
 - i. Approved Spill Contingency Plan referred to in Part G;
 - ii. Approved Temporary Solid Waste Disposal Operation and Maintenance Plan referred to in Part D;
 - iii. Approved Sewage Waste Disposal Facilities Operation and Maintenance Manual referred to in Part D
 - iv. Approved Water Treatment Plant Operation and Maintenance Plan referred to in Part D;
 - v. Approved Solid Waste Disposal Facilities Operation and Maintenance Plan referred to in Part D; and
 - vi. Approved Final Closure and Reclamation Plan referred to in Part H.
14. Any other details on Water Use, operating procedures, Modifications, maintenance work or other topics, requested by the as Board by November 1 of the year being reported.

**Annex A – Surveillance Network Program (SNP)
Annexed to Water Licence S18L3-001**

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Part A: Reporting Requirements

Part B: Sampling and Analysis Requirements

Part C: Surveillance Network Program (SNP) Station Descriptions and Monitoring Requirements

Part A: Reporting Requirements

1. The effective date of this Surveillance Network Program (SNP) is **TBD**.
2. Beginning March 31, 2019, and for every year thereafter, the Licensee shall submit to the Board and Inspector, a **Surveillance Network Program Report** as part of the Annual Water Licence Report, as per Part B, condition 16 and specified in Schedule 1 of this Licence, which shall include, but not be limited to the following:
 - a) Electronic and tabular summaries of all data and information generated under Part B of this Annex, including rationale for SNP stations where samples were not collected and results and interpretation of quality assurance/quality control procedures;
 - b) Graphical summaries and interpretation of the analytical results from the SNP samples collected at the points of compliance **compared to the effluent quality criteria identified in Part D of this Licence**;
 - c) Graphical summaries and interpretation of the analytical results from the SNP groundwater samples compared to the **Federal Contaminated Sites Action Plan – Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites**.
 - d) An explanation of any actions taken in response to any exceedances of the effluent quality criteria;
 - e) Information regarding the calibration and status of the meters and devices referred to in Part B of this Licence; and
 - f) The exact coordinates of all SNP stations which were established within the year being reported, including an updated map identifying the locations of all the SNP stations.
3. The Licensee shall also provide SNP data at other times, if requested by the Board or Inspector.

Part B: Sampling and Analysis Requirements

1. All sampling, sample preservation, and analyses shall be conducted in accordance with methods prescribed in the current edition of American Public Health Association's (APHA) *Standard Methods for the Examination of Water and Wastewater* at the time of analysis, or by other such methods approved by an Analyst.
2. All groundwater samples are to be collected in accordance with ASTM D4448-01, Standard Guide for Sampling Ground-water Monitoring Wells or as recommended by a qualified professional.
3. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.
4. Prior to the collection of SNP samples, the Licensee shall submit to the Board and an Analyst, a **Quality Assurance and Quality Control Plan**, which shall include both field and laboratory requirements. The Analyst shall provide a recommendation to the Board. The Licensee shall not initiate the SNP until the Analyst has approved the Plan.
5. More frequent sample collection may be required at the request of an Inspector.

Commented [SS2]: Reviewer comment requested noting the **sewage lagoon O&M** Plan includes Section 2.15 (Quality Assurance/Quality Control Plan) and identifies Taiga Environmental Lab however references are outdated (i.e. CAEAL vs CALA) and related Section 3.3 (Water/Wastewater sampling) references Appendix E (qa/qc procedures required by the lab) however is not provided in this version.

Part C: SNP Station Descriptions and Monitoring Requirements

1. The location of sampling sites is subject to approval of an Inspector.
2. Coordinates of the SNP stations shall be submitted to the Board within 60 days of issuance of this Licence.
3. The sampling station locations are as follows:

Table 1 - SNP Network Program Stations

SNP Station #	Description	Frequency	Parameters	Rationale
0555-1	Raw water supply from Great Bear Lake at the Water Treatment Plant	Daily	Cubic metres	To determine the quantity of water used for potable purposes
0555-1	Inactive – site abandoned but not decommissioned - effluent at point of discharge from the secondary sewage lagoon – decant n/a	n/a		
0555-2	Inactive – site abandoned but not decommissioned - effluent at point of entry of seepage from the sewage lagoon at Airplane Lake	n/a		
0555-3	Runoff from the Temporary solid waste disposal site	Monthly from June to October	pH, Total Suspended Solids (TSS), Faecal Coliforms, Biological Oxygen Demand (BOD ₅), Carbonaceous	To monitor runoff quality from the current use (Temporary) Solid Waste Facilities
0555-4	Continuous discharge lagoon - effluent at point of discharge to wetland	Monthly from June to October	biochemical oxygen demand (CBOD ₅), Ammonia, Total Phosphorus, Nitrate, Nitrite, Calcium, Chloride, Sodium,	To monitor effluent quality from the Sewage Disposal Facilities prior to discharge to the wetland
0555-5	Continuous discharge lagoon - Effluent at 2,000m downstream from discharge	Monthly from June to October	Magnesium, Potassium, Conductivity, Total Metals	To monitor effluent quality following wetland treatment
0555-6	West drainage from new solid waste disposal site	Monthly when runoff is present	(Arsenic, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese,	To monitor runoff quality from the new Solid Waste Facilities
0555-7	East drainage from new solid waste disposal site	Monthly when runoff is present	Mercury, Nickel, Zinc), Total Petroleum Hydrocarbons (TPH), BTEX, Total Phenols,	To monitor runoff quality from the new Solid Waste Facilities
NEW 2018-1a	MW110 – up-gradient (NW) of Northern Former Landfill area (APEC 7), monitors background conditions.	Three times per year at the beginning, middle, and end of the open water season (i.e., one week following freshet, the last	Polycyclic Aromatic Hydrocarbons (PAHs), volatile organic compounds (VOCs), Oil and Grease	To monitor background water quality conditions in the vicinity of the Temporary SWF.

Commented [SS3]: Existing SNP Location Map – incorrect as associated with abandoned sewage lagoon, yet to be reclaimed.

Commented [SS4]: Existing SNP Location Map - correct

Commented [SS5]: Reviewer comment requested - Proposed inclusion of groundwater monitoring that aligns with CRP V2.0 plans (Section 7.3) – post-closure – which have been delayed since 2015 – also aligns with groundwater monitoring requirements for active sites at other facilities in the Sahtu.

Parameters align with requirements for municipal facilities in Sahtu with addition of VOCs as proposed in CRP V2.0.

Requires Proponent feedback requested as Table 6.2 suggests MW110 background (SWF) while Section 7.3 indicates BH/MW102 is upgradient. Board staff also confirmed location in Figure 2 of CRP V2.0

Alternatively, as included in Part XX, Licensee would be required to submit a Proposal for the SNP which considers inclusion of groundwater monitoring wells installed as part of the closure plans for facilities (under ESA activities).

NEW 2018-1b	MW123 – up-gradient (NW) of abandoned sewage lagoon area (APEC 1, primary lagoon), monitors background conditions.	week of July and before freeze up).		To monitor background water quality conditions in the vicinity of the abandoned Sewage Lagoon
NEW 2018-2a	MW102 – East of APEC 7, SWF			To monitor potential impact of the Temporary SWF on groundwater quality.
NEW 2018-2b	MW122 – Within APEC 3 (Honey Bag Disposal Pit), east central SWF			
New 2018-2c	MW114 – Within APEC 8 (Southern Former Landfill Area), southeast SWF			
New 2018-2d	MW118 – Within APEC 8, south			To monitor potential impact of the abandoned sewage lagoon on groundwater quality
New 2018-3a	MW120 – Between APEC 1 (secondary sewage lagoon) and southwest wetland			

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**Annex B – Concordance Table of Items Requiring Submission
Annexed to Water Licence S18L3-001**

Table 1: Summary of the information the Licensee is required to submit as per the Water Licence conditions

Licence Condition	Item	Timeline for Submission	Requirement
B.13&14	Post signs to inform the public of the Water intake and SNP Stations	Within 60 days of Licence issuance	Satisfaction of Inspector
B.16	Submit Annual Water Licence Report	Beginning March 31, 2019 and every year thereafter	Acceptance by Board
D.4	Submit Operation and Maintenance Manual for Water Treatment Plant	Within 60 days of Licence issuance	Board approval
D	Submit revised Operation and Maintenance Plan	If necessary following annual review, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan	Board approval
D.13	Submit Sludge Management Plan	At least 60 days prior to commencement	Board approval
E.4	Submit Final Design Drawing for Construction of any structures intended to contain, withhold, divert or retain Waters or Wastes.	At least 90 days prior to commencement	Acceptance by Board
E.5	Notify Board and Inspector before commencing Construction	At least 10 days prior to commencement	Acceptance by Board
E.6	Submit As-build Report for Construction of any structures intended to contain, withhold, divert or retain Waters or Waste	Within 90 days of completion of Construction	Acceptance by Board
E.7	Submit As-built Report for the Sewage Lagoon		Acceptance by Board
F.1	Notify Board and Inspector before commencing Modifications	At least 60 days prior to commencement	Acceptance by Board
F.3	Submit as-built drawings of Modifications	Within 90 days of completion	Acceptance by Board
G.2	Submit revised Spill Contingency Plan	If necessary following annual review, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan	Board approval
H.1	Submit revised Closure and Reclamation Plan	If necessary following annual review, at least sixty (60) days prior to any proposed changes to the requirements in the approved Plan	Board approval
Annex A	Submit Surveillance Network Program Report	Beginning March 31, 2019 and every year thereafter with the Annual Water Licence Report	Acceptance by Board

Annex C – Table of Revision History
Annexed to Water Licence S18L3-001

Table 1: Updates and changes that have been made to the Water Licence since issuance

Date	Location of Change	Description of Change