

**Type B Municipal Water Licence S20L3-003
(Renewal of S15L3-002)**

Charter Community of Fort Good Hope – Municipal Water Use and Deposit of Waste

Table of Contents

- Part A: [Scope](#) and [Defined Terms](#)
- [Part B](#): General Conditions
- [Part C](#): Security
- [Part D](#): Water Use
- [Part E](#): Construction
- [Part F](#): Waste and Water Management
- [Part G](#): Aquatic Effects Monitoring
- [Part H](#): Spill Contingency Planning
- [Part I](#): Closure and Reclamation

Schedules

- Schedule 1: Annual Water Licence Report (Part B)
- Schedule 2: Board Required Study
- Schedule 3: Closure and Reclamation (Part I)

Annex A: Surveillance Network Program

- Part A: Reporting Requirements
- Part B: Sampling and Analysis Requirements
- Part C: Surveillance Network Program Stations

Annex B: Concordance Table of Items Requiring Submission

Annex C: Table of Revision History

Instructions and Notes for Using this Document

Green highlighting is used to identify any areas where staff will need to fill in or choose text to customize the condition when preparing a draft licence.

Yellow highlighting is used to identify non-standard conditions or conditions carried forward from S15L3-002.

Red text is used to identify the text that will be edited or removed after finalizing the water licence conditions.

Part A: Scope and Defined Terms

Scope:

	Scope	Condition Title
1.	This Licence entitles the Licensee to use Water and deposit Waste for municipal purposes at the Charter Community of K'asho Got'ine (Municipality of Fort Good Hope), K'asho Got'ine District, Sahtu Settlement Area, Northwest Territories. The location of the community is Latitude 66° 15' North, Longitude 128° 38' West.	SCOPE
2.	The scope of this Licence is as described in the Preliminary Screening for S15L3-002 dated October 21, 2015.	SCOPE – PRELIMINARY SCREENING
3.	This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Any change made to the <i>Waters Act</i> and/or the Waters Regulations that affects licence conditions and defined terms will be deemed to have amended this Licence.	LEGISLATION SUBJECT TO CHANGE
4.	Compliance with this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, or municipal legislation.	LEGISLATIVE COMPLIANCE

Defined Terms:

Action Level – a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions.
Analyst – an Analyst designated by the Minister under subsection 65(1) of the <i>Waters Act</i> .
Bagged Toilet Waste Disposal Facilities - the area and associated structures designed to contain bagged toilet wastes commonly called “honey

bags”.
Board – the Sahtu Land and Water Board established under Part 3 of the <i>Mackenzie Valley Resource Management Act</i> .
Closure and Reclamation – the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.
Closure and Reclamation Plan (CRP) – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for the Project.
Component-Specific Closure and Reclamation Plan (Component-Specific CRP) – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for a component 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 development of the Project.
Community Reservoir - comprises the area and associated infrastructure designed for the year-round storage and de-siltation of Water pumped twice each year using the Water Intake Infrastructure.
Discharge – a direct or indirect deposit or release of any Water or Waste to the Receiving Environment.
Effluent – a Wastewater Discharge.
Effluent Quality Criteria (EQC) – numerical or narrative limits on the quality or quantity of the Waste deposited to the Receiving Environment.
Engineered Structure – any structure or facility related to Water Use or the deposit of Waste that is designed by a Professional Engineer, including but not limited to the Sewage Disposal Facilities, Solid Waste Disposal Facilities and Water Treatment Plant associated with the undertaking.
Freeboard – the vertical distance between the Water or Wastewater line and the lowest elevation of the effective Water or Wastewater containment crest on the upstream slope of a containment structure.
Greywater – all liquid Waste from showers, baths, sinks, kitchens, and domestic washing facilities, but does not include Toilet Waste.
Groundwater – as defined in section 1 of the Waters Regulations: all water in a zone of saturation below the land surface, regardless of its origin.
Hazardous Waste - a Waste which, because of its quantity, concentration, or characteristics, may be harmful to human health or the environment when improperly treated, stored, transported, or discharged.

Inspector – an Inspector designated by the Minister under subsection 65(1) of the <i>Waters Act</i> .
Licensee – the holder of this Licence.
Maximum Average Concentration – the concentration of a parameter that cannot be exceeded by the running average of any four consecutive analytical results.
Maximum Grab Concentration – the concentration of a parameter that cannot be exceeded in any one analytical result.
Minister – the Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources.
Modification - 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 Watercourse rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing Watercourses (rivers, streams), this refers to an 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 predominantly 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 as per the territorial <i>Engineering and Geoscience Professions Act</i> and whose professional field of specialization is appropriate to address the components of the Project at hand.
Progressive Reclamation – Closure and Reclamation activities conducted during the operating phase of the Project.
Pumpout Sewage - all Toilet Wastes and/or Greywater collected by means of a vacuum truck for disposal at an approved facility.
Remediation – the removal, reduction, or neutralization of substances, Wastes, or hazardous materials from a site in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.
Receiving Environment – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.
Runoff – the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land.
Seepage – any Water 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 Sludge - comprises a mixture of Water and non-stabilizing solids separated from Sewage disposed of at the Sewage Disposal Facilities
Sewage Disposal Facilities – the area(s) and structures designated to contain and treat Sewage.
Solid Waste Disposal Facilities – the area(s) and structures designated to contain solid Waste.
Spill Contingency Plan (SCP) – a document developed for the Project in accordance with INAC's <i>Guidelines for Spill Contingency Planning</i> .
Surveillance Network Program (SNP) – a monitoring program required by this Licence and detailed in Annex A.
Temporary Hazardous Waste Storage Facility - a bermed and lined area constructed and maintained for the temporary storage of hazardous Waste
Toilet Wastes – all human excreta and associated products, not including 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 Discharge of any Water or Waste not authorized under this Licence
<p>Waste – as defined in section 1 of the <i>Waters Act</i>:</p> <ul style="list-style-type: none"> a) a substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by an animal, fish or plant, or b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a), <p>and includes</p> <ul style="list-style-type: none"> c) a substance or water that, for the purposes of the <i>Canada Water Act</i>, is deemed to be waste, d) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i), e) water that contains a substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 63(1)(b)(ii), and f) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 63(1)(b)(iii).
Waste Disposal Facilities – the area(s) and structures designated for the disposal of Waste, including, but not limited to, the Sewage Disposal Facilities, Solid Waste Disposal Facilities, Temporary Hazardous Waste Containment Facility, and Bagged Toilet Wastes Disposal Facilities.

Wastewater – any Water that is generated by the undertaking activities or originates on-site, and which contains Waste, and may include, but is not limited to, Runoff, Seepage, Sewage, and Effluent.

Water – as defined in section 1 of the *Waters Act*: water under the administration and control of the Commissioner, whether in a liquid or frozen state, on or below the surface of land.

Water Intake Infrastructure - the mobile, skid-mounted pump unit (pump shack) and associated temporary and permanent piping lines used for Community Reservoir filling operations from the Mackenzie River twice each year.

Watercourse – as defined in section 1 of the Waters Regulations: a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

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 Distribution Facility, the Water Intake Infrastructure and the Community Reservoir.

Water Treatment Plant and Distribution Facility comprises the area and associated infrastructure designed to collect, treat, and supply Water for municipal purposes.

Water Management Area – a geographical area of the Northwest Territories established by section 2 and Schedule A of the Waters Regulations.

Waters Regulations – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

Water Use – as defined in section 1 of the *Waters Act*: a direct or indirect use of any kind, including, but not limited to,

- a) a diversion or obstruction of waters,
- b) an alteration of the flow of waters, and
- c) an alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal, but does not include a use connected with shipping activities that are governed by the *Canada Shipping Act, 2001*.

	Part B: General Conditions	
1.	The Licensee shall ensure a copy of this Licence is maintained at the Municipal Office, Municipal Shop, and Water Treatment Plant and Distribution Facility at all times.	COPY OF LICENCE
2.	The Licensee shall take every reasonable precaution to protect the environment.	PRECAUTION TO PROTECT ENVIRONMENT
3.	All references to policies, guidelines, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise noted.	REFERENCES
4.	The Licensee shall ensure all submissions to the Board: <ul style="list-style-type: none"> a) Are in accordance with the MVLWB <i>Document Submission Standards</i>; b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and c) Include any additional information requested by the Board. 	SUBMISSION FORMAT AND CONFORMITY
5.	The Licensee shall ensure management plans are submitted to the Board in a format consistent with the MVLWB <i>Standard Outline for Management Plans</i> , unless otherwise specified.	MANAGEMENT PLAN FORMAT
6.	The Licensee shall comply with all plans, programs, manuals and studies, including revisions, approved pursuant to the conditions of this Licence.	COMPLY WITH SUBMISSIONS AND REVISIONS
7.	The Licensee shall conduct an annual review of all plans, programs, manuals and studies and make any revisions necessary to reflect changes in operations, contact information, or other details. No later than March 31 each year, the Licensee shall send a notification letter to the Board, listing the documents that have been reviewed and do not require revisions.	ANNUAL REVIEW
8.	The Licensee may propose changes at any time by submitting revised plans, programs, manuals or studies to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. The Licensee shall not implement the changes until approved by the Board.	REVISIONS
9.	The Licensee shall revise any submission and submit it as per the Board's directive.	REVISE AND SUBMIT
10.	If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.	SUBMISSION DATE

11.	The Licensee shall comply with the Schedules , which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.	COMPLY WITH SCHEDULE(S)
12.	The Licensee shall comply with the Surveillance Network Program , which is annexed to and forms part of this Licence, and any updates to the Surveillance Network Program as may be made by the Board.	COMPLY WITH SURVEILLANCE NETWORK PROGRAM
13.	The Licensee shall replace or repair any monitoring wells that are, or become, inoperable to the satisfaction of an inspector. For greater certainty, a “dry well” is not an inoperable well within the meaning of this Licence.	INOPERABLE WELL
14.	Within eighteen (18) months following issuance, the Licensee shall submit to the Board, for approval, a Proposal to Revise the Surveillance Network Program which shall consider groundwater and surface water locations capable of being sampled to identify contamination, if any, originating from the Waste Disposal Facilities and include geographic coordinates and descriptions for stations listed in the Surveillance Network Program annexed to this Licence. The recommendation of proposed changes shall be based on the results of the Waste Disposal Facilities Flow Pathway Study required as per Part F, item 20 of this Licence.	REVISE SURVEILLANCE NETWORK PROGRAM
15.	The Schedules, the Surveillance Network Program, and any compliance dates specified in this Licence may be updated at the discretion of the Board.	UPDATES TO COMPLIANCE DATE(S)
16.	The Licensee shall comply with all directives issued by the Board in respect of the implementation of the conditions of this Licence.	COMPLY WITH BOARD DIRECTIVES
17.	The Licensee shall ensure signs are posted for all active Surveillance Network Program stations. All sign(s) shall be located and maintained to the satisfaction of an Inspector.	POST SURVEILLANCE NETWORK PROGRAM SIGN(S)
18.	Within sixty (60) days of issuance, the Licensee shall post the necessary signs to inform the public of the location of the Water Treatment and Distribution Facility, Community Reservoir and Waste Disposal Facilities, identifying the locations of the Exfiltration Trench, Bagged Toilet Waste Disposal Facility, Solid Waste Trench, Segregated Waste Areas, and the Temporary Hazardous Waste Containment Area. All postings shall be located and maintained to the satisfaction of the Inspector.	POST SIGNS
19.	The Licensee shall install, operate, and maintain meters, devices, or other such methods for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.	MEASURE WATER USE AND WASTE DISCHARGED
20.	Beginning March 31, 2021 and no later than every March 31 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1.	ANNUAL WATER LICENCE REPORT

21.	The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence.	NOTIFICATION – NON-COMPLIANCE WITH CONDITIONS
22.	The Licensee shall immediately provide written notification to the Board of any non-compliance with a Board directive issued in respect of the implementation of the conditions of this Licence.	NOTIFICATION – NON-COMPLIANCE WITH DIRECTIVES
23.	The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board.	COPY – WRITTEN AUTHORIZATION
Part C: Security		
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Part D: Water Use		
1.	The Licensee shall only obtain Water for the Municipality of Fort Good Hope from the Mackenzie River using the Water Supply Facilities, unless otherwise approved by the Board. The Licensee may withdraw up to 31, 500 m ³ /year of Water from this source.	WATER SOURCE AND MAXIMUM VOLUME
2.	The Licensee shall only withdraw Water using the Water Supply Facilities, unless otherwise authorized temporarily in writing by an Inspector.	WATER WITHDRAWAL – FACILITIES
3.	Prior to withdrawing Water from an approved Water source, the Licensee shall post sign(s) to identify the intake for the Water Supply Facilities. All sign(s) shall be located and maintained to the satisfaction of an Inspector.	POST WATER INTAKE SIGN(S)
4.	The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish.	WATER INTAKE SCREEN
5.	Prior to locating a Water intake in a fish-bearing Watercourse, the Licensee shall obtain written authorization for the location from an Inspector.	WATER INTAKE LOCATION – AUTHORIZATION

Part E: 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.	OBJECTIVE – CONSTRUCTION
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.	ENGINEERED STRUCTURES – GENERAL
3.	The Licensee shall only use material that is clean and free of contaminants and is from a source that has been authorized in writing by an Inspector.	CONSTRUCTION MATERIAL – SOURCE(S)
4.	The Licensee shall maintain records of Construction materials for all structures and make them available at the request of the Board or an Inspector.	CONSTRUCTION RECORDS
5.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures the Licensee shall submit to the Board, Design Drawings stamped and signed by a Professional Engineer. A minimum of 90 days prior to implementing any proposed changes to the Design Drawings, the Licensee shall submit revised Design Drawings to the Board.	DESIGN DRAWINGS
6.	A minimum of ten days prior to the commencement of Construction of any structure(s) intended to contain, withhold, divert, or retain Water or Wastes, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing the Construction. Written notification shall be provided to the Board and an Inspector if any changes occur.	NOTIFICATION – CONSTRUCTION
7.	Within 90 days of the completion of the Construction of each Engineered Structure, 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 of the Engineered Structure(s), stamped and signed by a Professional Engineer; b) documentation, with rationale, of field decisions that deviate from the Fencing Plan/ design drawings; and c) any data used to support these decisions.	AS-BUILT REPORT – ENGINEERED STRUCTURE(S)
8.	Within sixty (60) days of issuance, the Licensee shall submit to the Board: a) As-built drawings of the Water Treatment and Distribution Facilities, stamped by a Professional Engineer and descriptions and rationale of changes made that deviate from the “issued for construction” designs; and b) Any available as-built drawings of the Temporary Hazardous Waste Storage Facilities.	

Part F: Waste and Water Management		
1.	The Licensee shall manage Waste and Water with the objective of minimizing the impacts of the Project on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions.	OBJECTIVE – WASTE AND WATER MANAGEMENT
2.	The Licensee shall minimize erosion by implementing suitable erosion control measures that shall be located and maintained to the satisfaction of an Inspector.	EROSION CONTROL
Operation of Structures and Facilities		
3.	The Licensee shall maintain a Freeboard limit of one metre at the Sewage Disposal Facility, or as recommended by a Professional Engineer and as approved by the Board.	SEWAGE DISPOSAL FACILITY – FREEBOARD
4.	The Licensee shall operate and maintain the Waste Disposal Facilities to prevent structural failure and to the satisfaction of an Inspector.	PREVENT STRUCTURAL FAILURE
5.	<p>The Licensee shall not accept Sewage and solid Wastes generated by industrial, commercial, and institutional operators working outside of the local government boundaries of Fort Good Hope unless authorized in writing by an Inspector.</p> <p style="text-align: center;">OR</p> <p>At least 90 days prior to the commencement of any agreements to receive Waste from commercial or industrial operators operating outside the municipal boundaries of Fort Good Hope, the Licensee shall submit to the Board, for approval, a Commercial and Industrial Operators Waste Management Plan. The Plan shall describe how the Licensee shall monitor and regulate the volume of Sewage and Solid Waste deposited to the Waste Disposal Facilities from commercial and industrial operators working outside the municipal boundaries of Fort Good Hope. Such material shall be managed and maintained as described in the Board approved Operation and Maintenance Plan(s) for Waste Disposal Facilities.</p>	<p>SEWAGE AND SOLID WASTES – MUNICIPAL</p> <p style="text-align: center;">OR</p> <p>COMMERCIAL AND INDUSTRIAL OPERATORS WASTE MANAGEMENT PLAN</p>
6.	The Licensee shall not accept Hazardous Wastes generated by commercial and industrial operators at the Waste Disposal Facilities.	HAZARDOUS WASTES – MUNICIPAL
Inspection of Structures and Facilities		

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	Sewage	
7.	The Licensee shall act in accordance with the Operations and Maintenance Plan for the Sewage Disposal Facility, received by the Board on October 28, 2020 until a revised plan is approved by the Board.	SEWAGE DISPOSAL FACILITY - OPERATION AND MAINTENANCE PLAN
8.	Within 12 months following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Sewage Disposal Facility Operation and Maintenance Plan .	SEWAGE WASTE DISPOSAL FACILITY - OPERATION AND MAINTENANCE PLAN - REVISED
9.	The Licensee shall direct all Pump-out Sewage to the Sewage Disposal Facilities, or as otherwise approved by the Board.	
10.	Within sixty (60) days of issuance, in accordance with the Waste Disposal Facilities Report, the Licensee shall install a permanent method of measurement to monitor the Freeboard of the Sewage Disposal Facilities.	
11.	The Licensee shall notify the Board and Inspector, in writing, at least (30) days prior to initiating the removal and burial of Sewage Sludge and sediments originating from the Sewage Disposal Facility.	
12.	Within one (1) year following issuance, in accordance with the Waste Disposal Fencing Plan, the Licensee shall install fencing at the Sewage Disposal Facilities to limit access to the site and prevent wind-blown debris from entering the Exfiltration Trench. This fencing shall be installed to the satisfaction of an Inspector.	
13.		
14.	The bagged toilet Wastes (honey bags) shall be disposed of in a trench designed and designated for such waste and shall be disposed of to the satisfaction of the Inspector. This area shall be designated the Bagged Toilet Disposal Facility.	
15.	The Bagged Toilet Waste Disposal Facilities shall be maintained and operated in such a manner as to prevent structural failure and be maintained to the satisfaction of the Inspector.	
	Solid Waste	
16.	The Licensee shall act in accordance with the Operations and Maintenance Plan for the Solid Waste Disposal Facility, received by the Board on October 28, 2020 until a revised plan is approved by the Board.	SOLID WASTE DISPOSAL FACILITY - OPERATION AND MAINTENANCE PLAN
17.	Within 12 months following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Solid Waste Disposal Facility Operation and Maintenance Plan .	SOLID WASTE DISPOSAL FACILITY - OPERATION AND

		MAINTENANCE PLAN - REVISED
18.	The Licensee shall dispose of all solid Wastes at the Solid Waste Disposal Facilities, or as otherwise approved by the Board.	
19.	The Licensee shall not burn solid or liquid Wastes, with the exception of paper products, paperboard packaging and untreated wood Waste, which may be burned at the Solid Waste Disposal Facility, unless otherwise authorized in writing by an Inspector.	
20.	Within one (1) year of issuance, the Licensee shall submit to the Board, for approval, a Waste Disposal Facilities Flow Pathway Study. The Study shall include, but not be limited to, the information as set out in Schedule 2, Condition 1.	WASTE DISPOSAL FACILITIES FLOW PATHWAY STUDY
21.	The Licensee shall not accept hazardous Wastes at the Temporary Hazardous Waste Containment Facility generated by commercial and industrial operators.	
22.	Within one (1) year following the issuance, the Licensee shall install the fencing in accordance with Waste Disposal Fencing Plan and to the satisfaction of an Inspector.	
	The Licensee shall collect windblown and other litter in the Waste Disposal Facility and surrounding lands, once in the spring and again in the fall of every year for the duration of the Water Licence.	
	Water	
23.	The Licensee shall act in accordance with the Water Treatment Plant Operations and Maintenance Plan received by the Board on October 28, 2020 until a revised plan is approved by the Board.	WATER TREATMENT PLANT OPERATION AND MAINTENANCE PLAN
24..	Within 12 months following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Water Treatment Plant Operation and Maintenance Plan, in accordance with the requirements of Schedule 3, Condition 8.	WATER TREATMENT PLANT OPERATION AND MAINTENANCE PLAN – REVISED
25.	The Licensee shall notify an Inspector and the Board at least 14 days prior to the discharge of sludge from the Water Treatment Plant to the final disposal location.	NOTIFY INSPECTOR – WATER TREATMENT PLANT SLUDGE DISCHARGE

	Part G: Aquatic Effects Monitoring	
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	Part H: Spill Contingency Planning	
1.	The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters.	OBJECTIVE – PREVENT WASTE INTO WATER
2.	The Licensee shall comply with the Spill Contingency Plan, once approved.	SPILL CONTINGENCY PLAN
3.	<p>If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:</p> <p>a) Implement the approved Spill Contingency Plan referred to in Part H, Condition 2;</p> <p>b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:</p> <ul style="list-style-type: none"> • Telephone: (867) 920-8130 • Fax: (867) 873-6924 • E-mail: spills@gov.nt.ca • Online: Spill Reporting and Tracking Database <p>c) Notify the Board and an Inspector immediately; and</p> <p>d) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Written notification shall be provided to the Board and an Inspector if any changes occur</p>	REPORT SPILLS
4.	The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place.	SPILL PREVENTION AND RESPONSE EQUIPMENT
5.	The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.	CLEAN UP SPILLS

Part I: Closure and Reclamation		
1.	The Licensee shall comply with the Interim Closure and Reclamation Plan , once approved, and shall review the Plan annually and make any necessary 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.	INTERIM CLOSURE AND RECLAMATION PLAN
2.	The Licensee shall endeavor to carry out approved Progressive Reclamation as soon as is reasonably practicable.	PROGRESSIVE RECLAMATION
3.	The Licensee shall not conduct Progressive Reclamation except as approved by the Board.	PROGRESSIVE RECLAMATION – CARRY OUT AS APPROVED
4.	A minimum of six (6) months prior to the closing of any portion of the Waste Disposal Facilities, the licensee shall submit to the Board, for approval, a Component-specific Closure and Reclamation Plan to address final closure of that cell. The Plan shall be In accordance with Schedule 3.	

Signed on behalf of the Sahtu Land and Water Board

Larry Wallace, Chair

Aswathy Mary Varghese, Witness

Schedule 1
Annual Water Licence Report

1. The **Annual Water Licence Report** referred to in Part B, item 20, of this Licence shall be filed with the Board not later than **March 31st** of the year following the calendar year reported and shall include, but not be limited to, the following information:
 - a) the monthly and/or biannual and annual quantities in cubic metres of fresh Water obtained from all sources;
 - b) the monthly and annual quantities in cubic metres of each and all Waste discharged to the Waste Disposal Facilities; including hazardous Waste stored in the Temporary Hazardous Waste Storage Area, Sewage discharged to the Exfiltration Trench, and monitoring data collected in relation to the Board approved Operation and Maintenance Plan(s).
 - c) any details related to the use of Honey Buckets including the number of houses using honey buckets and the method of disposal of the honey bucket waste.
 - d) the monthly and annual quantities in cubic metres of Waste removed from the Waste Disposal Facilities;
 - e) the monthly and annual quantities in cubic metres of all Sewage and solid Waste deposited into the Waste Disposal Facilities by commercial and industrial operators working outside the municipal boundaries of Fort Good Hope, as approved by the Inspector;
 - f) a summary of major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures, with an outline of any work anticipated for the next year;
 - g) tabular summaries of all data generated under the Surveillance Network Program;
 - h) a list and description of all 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 H, item 3 of this Licence;
 - i) an outline of any spill training and communication exercises carried out;

- j) a summary of activities undertaken to install and maintain fencing at the Waste Disposal Facilities;
- k) a summary of any Construction activities conducted in accordance with Part E, undertaken during the previous year and an outline of any work anticipated for the next year;
- l) a summary of any Closure and Reclamation activities conducted in accordance with Part I, completed during the year and an outline of any work anticipated for the next year;
- m) a summary 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;
- n) a summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
- o) a summary of any updates or revisions to the Sewage Disposal Facilities, Solid Waste Disposal Facilities and Water Treatment Plant Operation & Maintenance Plans; and
- p) any other details on Water Use, operating procedures, , maintenance work or other topics, requested by the Board by November 1st of the year being reported.

Schedule 2

Waste Disposal Facilities Flow Pathway Study

1. The **Waste Disposal Facilities Drainage Study**, referred to in Part F, Item 20 of this Licence, must be undertaken by a suitably qualified professional (i.e. hydrogeologist) and shall include, but not be limited to, the following:
 - a) Maps and description of the water budget at and around the Waste Disposal Facilities. This description should include, but not be limited to, a conceptual model of leachate generation based on current and past Waste disposal practices, surface Water flow, and Groundwater flow;
 - b) Validation of the conceptual model of leach generation, surface Water flow, and Groundwater flow;
 - c) Identification of a minimum of two (2) Groundwater monitoring locations, sufficiently close to the active facilities to allow early detection of potential impacts and evaluate the performance and flow pathway of the Sewage Disposal Facilities;
 - d) Identification of a 'compliance well' location that would represent background conditions; and
 - i. Determine the applicability of the existing Surveillance Network Program (SNP) stations, and include recommendations for new stations, testing frequency, and sampling and analysis requirements as part of the **Proposal to Revise the SNP** referred to in Part B, Item 14, if the study determines existing stations are not adequately placed to monitor water quality and quantify all surface Water out points.

Schedule 3

Conditions Applying to Closure and Reclamation

1. The **Interim Closure and Reclamation Plan** referred to in Part I, item 1 of this Licence shall address (?), but not be limited to the following information:
 - a) All Waste Disposal Facilities and sites;
 - b) The petroleum and chemical storage areas;
 - c) Any site affected by spills or Unauthorized Discharges;
 - d) Maps delineating all disturbed areas, borrow locations, and site facilities, including hydrological features and elevation contours;
 - e) Consideration of natural and runoff Waters and altered drainage patterns;
 - f) The potential for contamination of Groundwater and runoff Water (i.e. leachate prevention);
 - g) A phased approach and implementation schedule that includes consideration of the design, capacity and lifespan of the components of the Waste Disposal Facilities; and,
 - h) A proposal identifying measures by which Reclamation costs will be financed by the Licensee upon closure.

2. With regard to the facility being closed, the **Component-Specific Closure and Reclamation Plan** referred to in Part I, item 4 shall include, but not be limited to, the following information:
 - a) A description of existing conditions, including photographs;
 - b) A description of monitoring activities conducted prior to closure and a summary of results obtained;
 - c) Contaminated site remediation;
 - d) The potential for contamination of groundwater and runoff water (leachate prevention);
 - e) Consideration of altered drainage patterns;
 - f) Type and source of cover materials;
 - g) Future area use;
 - h) Hazardous Wastes removal, transportation, and disposal;
 - i) A post-closure monitoring plan;
 - j) An implementation schedule; and,
 - k) Maps delineating all disturbed areas, borrow material locations, and site facilities including hydrological features and elevation contours.

Annex A – Surveillance Network Program (SNP)

Annexed to Water Licence S20L3-003 Part B, Condition 12 Charter Community of Fort Good Hope

Part A: Reporting Requirements

1. The effective date of this Surveillance Network Program is February 3, 2020.
2. The Licensee shall include all of the data and information required in Part C of this Annex in the **Annual Water Licence Report**, as specified in Part B, item 4 of this Licence.
3. The Licensee shall also provide SNP data at other times, if requested by an Inspector or the Board.

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 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.
3. More frequent sample collect may be required at the request of an Inspector.
4. With the exception of SNP station 2015-1, the location of sampling sites is recommended and final locations are subject to Board approval of a **Waste Disposal Facilities Flow Pathway Study** referred to in Part F, item 20.


Part C: Surveillance Network Program Stations

SNP Station	Location	Sampling Frequency	Sampling Parameters	Rationale
2015-1	Raw water intake supply from the Mackenzie River at the pump site.	Twice per year during biannual filling of the reservoir (April & October)	Volume of water in cubic metres	To monitor biannual quantity of water withdrawn for municipal purposes.
2015-3; 2015-4; and 2015-5	Groundwater monitoring wells along west side of Waste Disposal Facilities (WDF)	Three times per year at the beginning, middle, and end of the open water season (i.e., one week following freshet, the last week of July and before freeze up).	<ul style="list-style-type: none"> • Field parameters: pH, conductivity, temperature, dissolved oxygen • Major ions⁴ • ICP-MS Metal Scan (Dissolved)¹ • Nitrate • Nitrite • Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) • Total Petroleum Hydrocarbons (F1 + F2 + CCME Fractions) • Oil and Grease • Total Phenols • Methyl <i>tert</i>-butyl ether • Dissolved organic carbon 	To monitor potential impacts Waste Disposal Facilities (WDF) on Groundwater.
2015-6	Groundwater monitoring well along southeast side of WDF	Three times per year at the beginning, middle, and end of the open water season (i.e., one week following freshet, the last week of July and before freeze up).	<ul style="list-style-type: none"> • Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) • Total Petroleum Hydrocarbons (F1 + F2 + CCME Fractions) • Oil and Grease • Total Phenols • Methyl <i>tert</i>-butyl ether • Dissolved organic carbon 	To monitor background water quality conditions in the vicinity of the WDF.
2015-7	Surface water flow along northwest-side of WDF	Monthly during periods of flow (i.e., June to October).	pH, Total Suspended Solids (TSS), Faecal Coliforms, Biological Oxygen Demand (BOD ₅), Carbonaceous biochemical oxygen demand (CBOD ₅), Water level (masl)	To monitor potential impacts to surface water surrounding the WDF.

SNP Station	Location	Sampling Frequency	Sampling Parameters	Rationale
2015-8	Surface water flow along southwest-side of WDF	Monthly during periods of flow (i.e., June to October).	Ammonia, Total Phosphorus, Nitrate, Nitrite, Calcium, Chloride, Sodium, Magnesium, Potassium, Conductivity, Total Metals (Arsenic, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Zinc), Total Petroleum Hydrocarbons (TPH), BTEX, Total Phenols, Polycyclic Aromatic Hydrocarbons (PAHs), Oil and Grease	To monitor potential impacts to surface water surrounding the WDF
2015-9	Visible seepage on the west side of the WDF along top bank of Mackenzie River	Monthly during periods of flow (i.e., June to October).		To monitor potential leachate migration from the WDF.

Signed on behalf of the Sahtu Land and Water Board

Larry Wallace, Chair



Aswathy Mary Varghese, Witness

Annex B: Table of Items Requiring Submission

This table summarizes the information the Licensee is required to submit as per the Water Licence Conditions.

Part of Licence	Item	Timeline
B.20	Annual Water Licence Report	By March 31 st , each year
B.14	Proposal to Revise the Surveillance Network Program	Within eighteen (18) months of issuance
B.17	Identify SNP stations with signage	Within sixty (60) days of approval of revised SNP
B.18	Identify Waste Disposal Facilities and Water Supply Facilities with signage	Within sixty (60) days of issuance
F.11	Written notification, including sampling results to Inspector	Thirty (30) days prior to removal and burial of Sewage Sludge and sediments from the Sewage Disposal Facility
	Erect fencing around the Waste Disposal Facilities	Within one (1) year of issuance
	Waste Disposal Facilities Flow Pathway Study	Within one (1) year of issuance
	Commercial and Industrial Operators Waste Management Plan	Within six (6) months of issuance
	Revised Operations and Maintenance Plan for the Solid Waste Disposal Facilities	Within ninety (90) days of issuance
	Revised Operations and Maintenance Plan for the Wastewater Disposal Facilities	Within ninety (90) days of issuance
	Revised Operations and Maintenance Plan for the Water Treatment Facilities	Within ninety (90) days of issuance

	As-built drawings and report for the Water Treatment Plant and Distribution Facility and the Temporary Hazardous Waste Containment Area.	Within sixty (60) days of issuance
	Final design drawings	Ninety (90) days prior to the construction of any structures intended to contain, withhold, divert or retain Waters or Wastes
	Written notification to the Board and an Inspector	Ten (10) days prior to commencement of construction
	As-built report	Within ninety (90) days of completion of construction
	Revised Spill Contingency Plan	
	Component-specific Closure and Reclamation Plan	Six (6) months prior to the closing of any Water or Waste Disposal Facilities

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Annex C: Table of Revision History

Updates and changes that have been made to the water licence since issuance

Date	Location of change	Description of change

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