



Water Licence Application Questionnaire
for
Municipal Undertakings

'To provide for the conservation, development and utilization of waters in a manner that will provide the optimum benefit for all Canadians and in particular, for the residents of the Inuvialuit Settlement Region.'

October 2014

The purpose of this questionnaire is to solicit supplemental information from an applicant to support his/her application for a water license (or its renewal). It is anticipated that the completion of this questionnaire will reduce delays arising from the Inuvialuit Water Board having to solicit additional information after an application has been submitted. This information will also be useful during the review of your application, which must be undertaken prior to development and approval of a water license.

The applicant should complete the questionnaire to the best of his/her ability, recognizing that some questions may not be relevant to the project under consideration. For questions that do not relate to the operation undertaking, the applicant is requested to indicate "N/A" (Not Applicable).

NOTE: If space is insufficient for any of the responses on this questionnaire, use the back of the sheet or an attachment.

If any questions arise while completing the questionnaire, the applicant may wish to contact the Inuvialuit Water Board at (867) 678-2942.

This questionnaire can be sent with the application for a new licence or the renewal of an existing licence to the following contact information:

Executive Director
Inuvialuit Water Board
P.O. 2531
Inuvik, NT, Canada
X0E 0T0
Email: info@inuvwb.ca

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SECTION 1: GENERAL

Date: May 7, 2019

Applicant:

Hamlet of Aklavik

(Company, Corporation, Hamlet, Town)

Fred Behrens Senior Administrative Officer

(Person to contact and its position)

Po Box 88, Aklavik, NT X0E 0A0

(Postal address)

867-978-2351

(Telephone number)

867-978-2434

(Facsimile number)

Community Status

City Village Town Camp
Other Hamlet

Population (according to most recent census results), and the Estimated Growth Rate over next five years or Camp Maximum Capacity:

623 currently live in Aklavik with an estimated reduction of 30 people over the next 5 years

Indicate the status of the municipality's license on the date of application.

New Application: Yes No

If No, please submit your Water Licence Number and the date the licence was issued.

Renewal of Water License Number: N3L3-0570 Date of Issuance: November 30 2014

Has any baseline data been collected for the main water bodies in the area?

Yes No Unknown


If yes, please attach:

- All data gathered on the physical, biological and chemical characteristics at each sampling location;
- A summary or program details indicating sampling locations, description of waste at each location, sampling frequency, and parameters analyzed;
- An outline of Quality Assurance/Quality Control methods being applied to sampling, preservation and analysis within the program.

[Redacted area]

Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (e.g., wildlife, soils, air quality) in addition to water related information requested in this questionnaire?

Yes No Unknown

If yes, please attach copies of reports or cite titles, authors and dates (prepared by, title and completion date). 

If no, do you plan on doing such studies? If you do plan on doing such studies, please describe the proposals.



Attach detailed maps which show the relative locations of the:

- raw water intake;
- water treatment facilities;
- fuel & chemical storage;
- sewage treatment facilities;
- wastewater treatment area and discharge outlets;
- solid waste disposal areas and drainage patterns;
- hazardous waste disposal area;
- transportation access routes; and
- existing waterbodies/courses and any changes to these water bodies/courses which have or may occur as a result of water use of waste disposal facilities, locations of environmental monitoring sites.

attached as background information

Attach detailed scale plan drawing(s) of the proposed (or present) sewage treatment system. The drawing(s) must be stamped by an engineer registered in NWT and include the following:

- details of pond size and elevation;
- precise details of all retaining structures (dimensions, materials of construction, etc.);
- details of the drainage basin, and existing and proposed drainage modifications;
- details of all decant, siphon mechanisms etc, including sewage treatment facilities;
- details regarding direction and route followed by wastewater flow from the area;
- indications of the distance to nearby major watercourses, and fish bearing waters;
- location and construction of liners;
- leachate and groundwater collection systems; and
- control structures.

attached as background information



Attach detailed scale plan drawings of the proposed (or present) solid waste disposal area. The drawings must include the following:

- precise details of all retaining structures (dimensions, materials of construction, etc.);
- details of the drainage basin, and existing and proposed drainage modifications;
- details regarding direction and route followed by wastewater flow from the area;
- indications of the distance to nearby major watercourses, and fish bearing waters;
- all sources of seepage presently encountered in the vicinity of these areas;
- the volume of each seepage flow (m³/day); and
- the direction of each flow.

attached as background information

Attach the present or proposed contingency plan which will be used for each portion of the waste control system in the event it fails to operate properly.

N/A

Attach the present or proposed spill contingency plan which will be employed in case a spill of hazardous materials occurs. Describe courses of action, mitigative methods and equipment available for use.

as attached background informatilon

NOTE: Individual detailed large scale drawings of all facilities (dam, decant system, ditch, dike, water treatment plant, etc) constructed or proposed must be attached. Specific details with regard to the methods of construction, materials used, etc. are required.

SECTION 2: WATER SUPPLY

Volume of water use (m³/day)

Type of source

Lake: River: Well: Other: _____

Name of raw water source and alternative, if any

Peel Channel of the Mackenzie River

Usual break-up & freeze-up months

Break-up: May Freeze-up: October

Please provide short descriptions for the following

Freshwater intake facility:

2 buried lines with a backwash line extends 130 feet under the Peel Channel of the Mackenzie River

Operating capacity of the pumps used:

150ft./minute

Type of water storage facility (ie: Reservoir, storage, tank, none. For other, please provide a description)

Storage tank

What is the capacity of the water storage facility? m³

2 ea 150,000 m³

What is the rate of withdrawal from the source? (m³/day)

100-120 m³ /day

Is water drawn from the source?

daily

If yes, during what month(s) is it drawn? And for what period of time is it drawn (days/weeks/months)?

daily 365 days a year

What is the rate of flow of source (if river) or size (if lake)?

N/A at river

At the intended rate of water usage, describe the effects on the river or lake from which water will be drawn.

no real effect

General condition of

Water supply facility: Satisfactory Unsatisfactory

If unsatisfactory, explain:

Storage facility: Satisfactory Unsatisfactory

If unsatisfactory, explain:

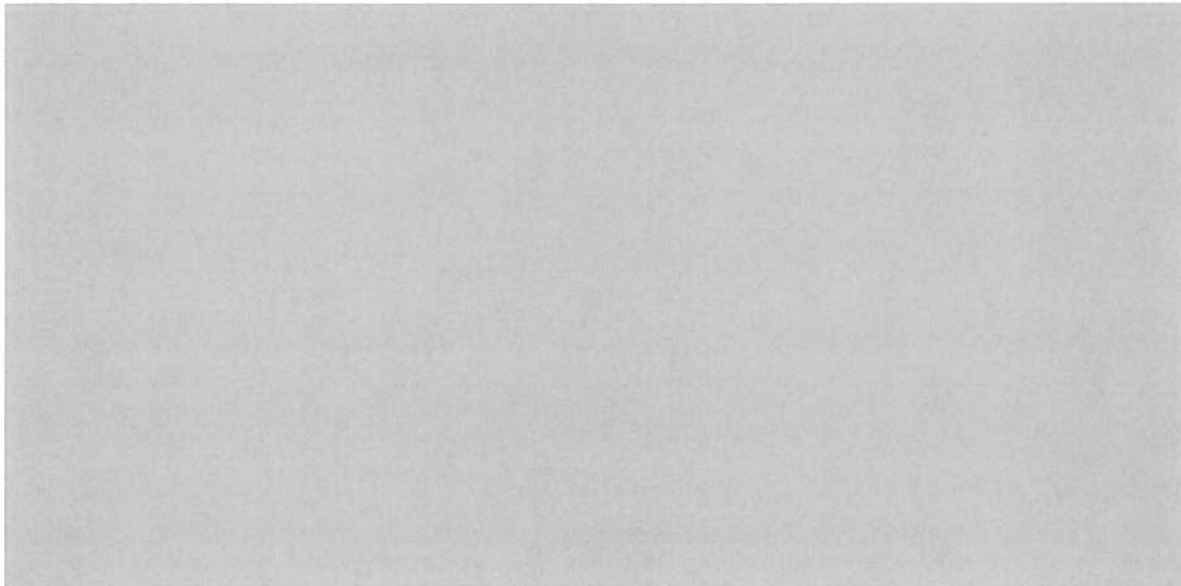
Distribution system: Satisfactory Unsatisfactory

If unsatisfactory, explain:

Are there any changes planned in the water supply system?

Yes No

If yes, please attach a copy of the plan, or describe changes.



SECTION 3: WATER TREATMENT

Indicate the quality of the raw water prior to treatment & distribution and give a description

Good

Fair

Poor

Description:

[Redacted description area]

Indicate the capacity of the treatment facility (L/minute)

120L/minute

Type of water treatment facility (ie: Filtration & Chlorination, Chlorination only, UV, None. If other, please describe)

Filtration and Chlorination

Describe in detail the method of water treatment (ie: backwash, flocculation, sedimentation, chemicals used) and provide the results of the most recent bacteriological and chemical analysis. Attach a diagram if possible.

Back wash, Flocculation, sedimentation & chemical used conventional filtration

Have there been any problems or health and environmental concerns with the water treatment facilities?

Yes

No

If yes, please describe:

[Redacted description area]

Are there any changes planned in the water treatment facilities?

Yes No

If yes, please attach a copy of the plan or indicate change

[Redacted plan area]

SECTION 4: SEWAGE DISPOSAL

Indicate the level of treatment the sewage will be receiving (primary, secondary or tertiary. If other, please describe)

Primary

Pre-treatment (if applicable) N/A

Screening

Maceration

Lagoons (if applicable)

Anaerobic

aerobic

facultative

Indicate the capacity of the sewage treatment facility (m³)

435,000 m3 as attached background information

Indicate the retention time of the sewage while in the treatment facility (days)

5018 days

Indicate the estimated rate of discharge of wastewater

unknown

Indicate the location of the discharge point

see attached background information

Will the discharge be seasonal or continuous?

continuous

If seasonal, during what month(s) will it occur?

What is the duration of the discharge (days/weeks/months)

Comment on the general condition of the:

Sewage collection system

satisfactory

Discharge control system

N/A

Dams, diversion, dykes or berms

N/A

Have there been any problems or health and environmental concerns with the sewage disposal facilities?

Yes

No

If yes, please describe: previously flooding made the lagoon inaccessible, however we have raised the road level to be above the 100 year flood mark so should not be a problem.

The average depth of the wastewater lagoon is (1.5 m meters)

What is the design freeboard? (N/A meters)

Is there any harvesting of fish or shellfish in the waters where waste is discharged?

Yes

No

If yes, please indicate species harvested, and estimate amounts.

Will the municipality be using a honey bag pit?

Yes

No

If yes, describe its location, drainage and operation & maintenance

Are there any sources of commercial or industrial liquid waste being discharged or deposited to the municipal system which may affect the quality of the effluent or leachate produced?

Yes

No

If yes, please describe:

Have any spills occurred in the past five years?

Yes

No

If yes, please submit a list of all spills with the date of the spill, the type of spill, the quantity spilled, the location of the spill, the method used to clean the spill and the results of the clean-up.

Have there been any operating problems with the lagoon?

Yes

No

If yes, please describe:

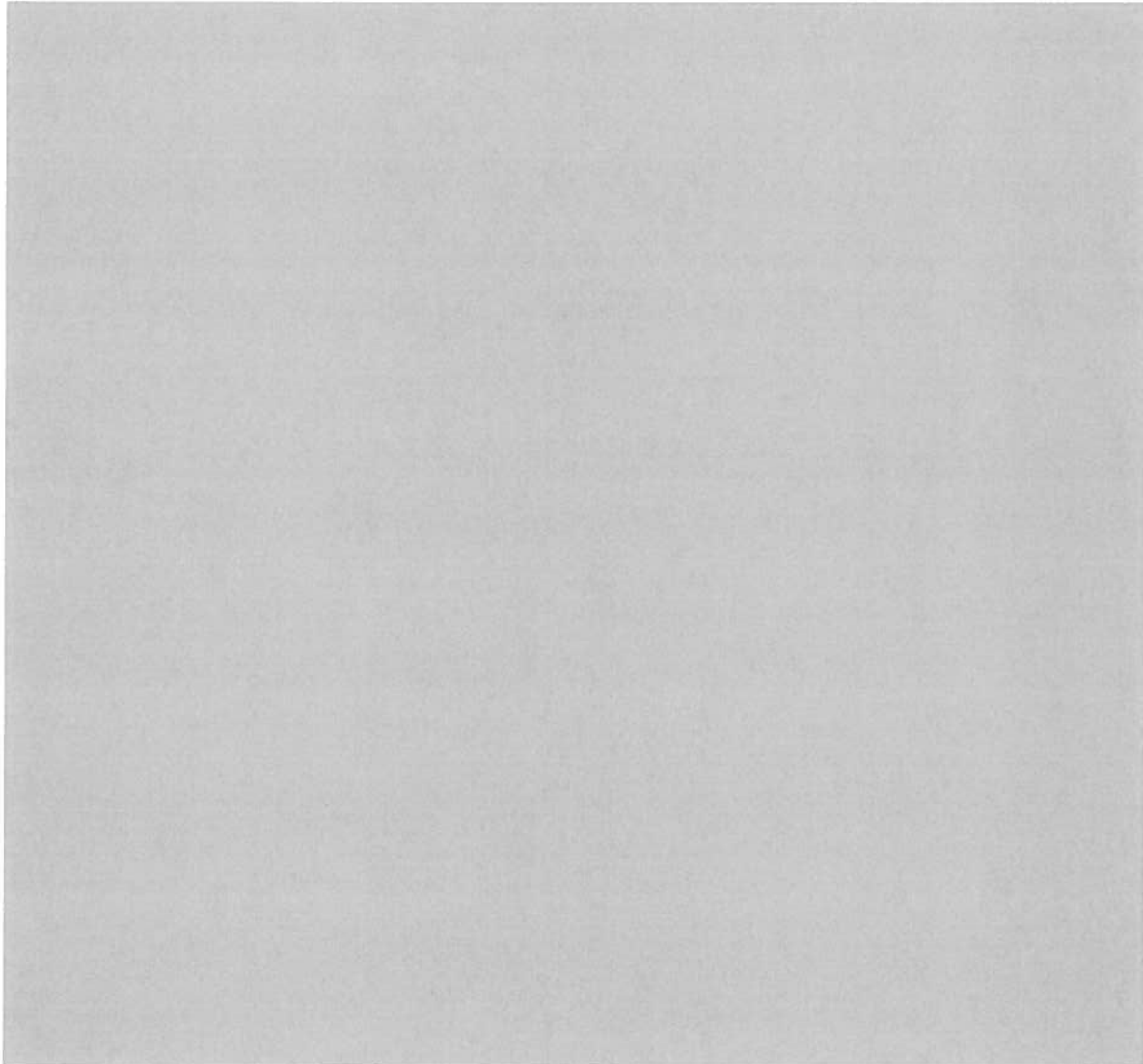
A large rectangular grey box redacting the text of the response to the first question.

Are there any changes planned in the sewage disposal facilities?

Yes

No

If yes, please describe and if possible, attach a copy of the plan:

A large rectangular grey box redacting the text of the response to the second question.

SECTION 5: SOLID WASTE DISPOSAL

Indicate the capacity of the disposal area (m³) 40,000m³

The average depth of the solid waste disposal site is (2 meters)

Are there any sources of commercial or industrial solid waste being deposited in the municipal system which may affect the quality of the effluent or leachate produced?

Yes No

If yes, please describe:

Briefly describe how the solid waste will be picked up & delivered to the disposal area

Solid waste is picked up at every household and commercial building three times a week by our contractor Slyck Enterprises

Is the solid waste site fenced?

Yes No

Will the municipality be using a dead animal pit?

Yes No

If yes, please describe its location, drainage and operation & maintenance:

see attached background information

Will the municipality be using a bulky metal waste disposal area?

Yes No

If yes, please describe its location and operation & maintenance:

see attached background information

Will the municipality be using a hazardous waste disposal area?

Yes No

If yes, please describe its location, structure and operation & maintenance:

Are there any hazardous commercial wastes entering the solid waste disposal system?

Yes No

If yes, please describe (source, volume, special handling and disposal methods for these wastes):



If any natural watercourse may gain access to the proposed solid waste disposal area, what methods will be used to decrease the amount of runoff water entering these areas? Indicate the volume of water which may enter these areas from the source(s) in question and attach all pertinent details of proposed diversions

N/A

Please describe the nature of any diversions of watercourses

N/A

Have there been any problems or health and environmental concerns with the solid waste disposal facilities?

Yes

No

If yes, please describe:

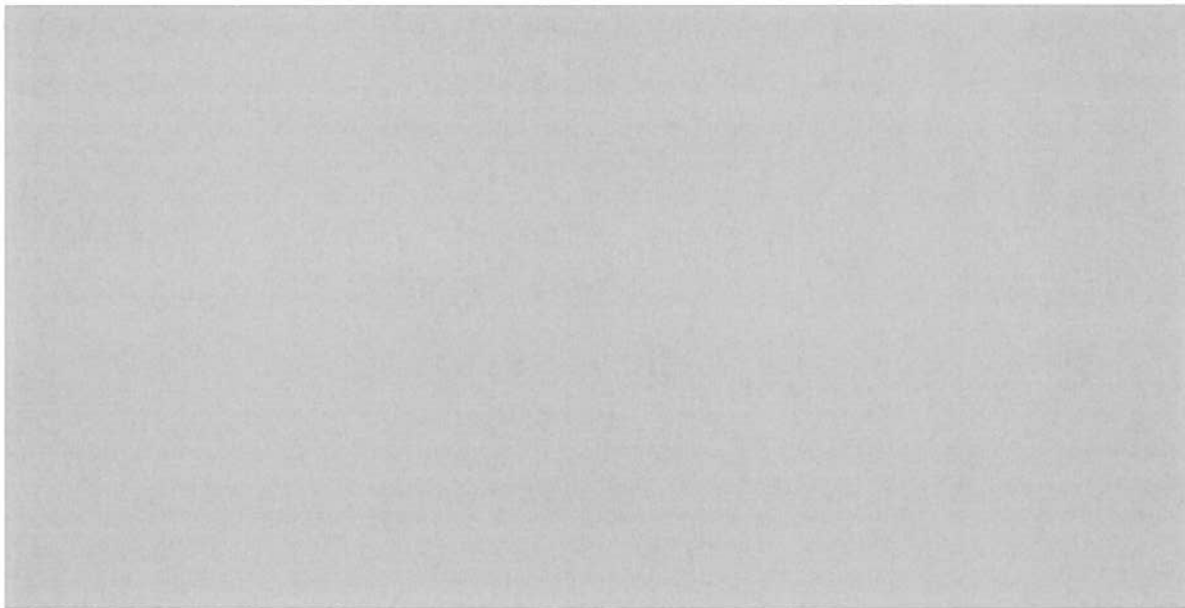


Are any changes planned in the solid waste disposal system?

Yes

No

If yes, please describe and, if possible, attach a copy of the plan:



SECTION 6: ABANDONMENT AND RESTORATION PROGRAM

List and describe the locations of abandoned or restored water treatment facilities.

N/A

List and describe the locations of abandoned or restored sewage treatment facilities.

N/A

List and describe the locations of abandoned or restored solid waste disposal facilities.

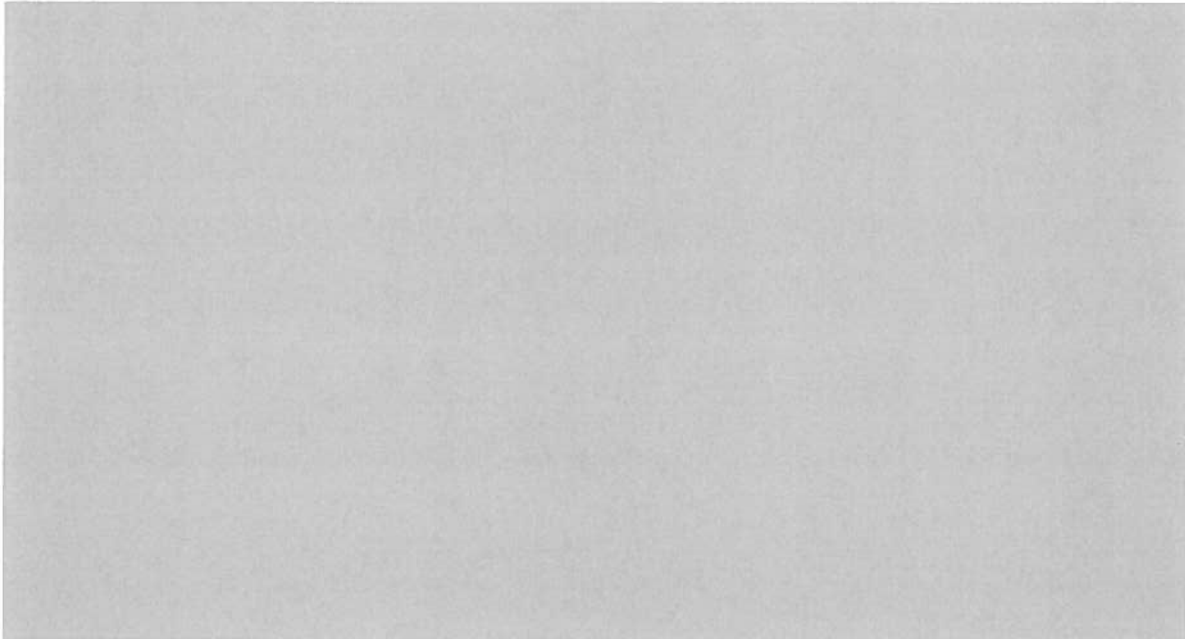
N/A

Do you have an abandonment and restoration plan?

Yes

No

If yes, please attach a copy of the plan.



SECTION 7: WATER QUALITY MONITORING PROGRAM

Briefly describe the methodology that is presently used to sample the raw water supply

Hamlet staff provide sampling daily and testing weekly

Briefly describe any monitoring that is done on wastewater effluent and leachate

Hamlet staff collect samples of the lagoon effluent in the spring after breakup and in the fall prior to freeze up.

Recognized laboratory performing analysis of samples

Name of the laboratory: Taiga Environmental Laboratory

Contact name: Glen Hudy

Postal address: X1A 2L9

Telephone number: 867-767-9235

Facsimile number: 867-920-8740

Are any changes planned in the water quality monitoring program?

Yes

No

If yes, please describe

SECTION 8: ENVIRONMENTAL ASSESSMENT AND SCREENING

Has this project ever undergone an initial environmental review, including previous owners?

Yes No Unknown

If yes, by whom and when?

[Redacted]

Has approval been obtained or sought from the Department of Fisheries and Oceans for using any fish bearing water bodies for containment or disposal of waste?

Yes No

Are there any environmental studies ongoing or planned?

Yes No

If yes, please provide a list of these studies.

[Redacted]

Prepared by:	<input type="text" value="Fred Behrens"/>	<input type="text" value="Senior Administrative Officer"/>
	Printed Name	Title
	<input type="text" value="Fred Behrens"/>	<input type="text" value="May 7, 2019"/>
	Signature	Completion Date