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Department of Community and Government Services Nunalingni Kavamatkunnilu Pivikhaqautikkut Ministère des Services Communautaires et gouvernementaux

March 20, 2017

Karen Kharatyan Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0 Phone: (867) 360-6338, Ext. 27

Fax: (867) 360-6369

Email: licensing@nunavutwaterboard.org

Attention: Sean Joseph, Technical Advisor

Re: Application for the Renewal of the Water Licence # 3BM-PAN 1417, TYPE-B of the Municipality of Pangnitung to TYPE A.

Dear Mr. Kharatyan,

I am writing you to confirm that the existing Water Licence #3MB-PAN1417 is Type B and will be expired on September 15, 2017. This licence covers three facilities: Water supply, Wastewater Treatment and Waste management. Both water and wastewater treatment facilities have been optimized. Waste management is currently in the Capital planning phase.

Duval river is the source of drinking water. The river water flows during summer only. Therefore during summer, water is pumped from Duval river to the manmade water Reservoir which has a capacity 120,000 cubic meters. Assuming a worst case scenario, during 10 month winter season and considering 1.8m ice thickness on top, the reservoir would still have a capacity of 71,000 cubic meters. Currently the annual water consumption volume of the Community is close to 50,000 cubic meters.

Using a Gorman and Rupp diesel driving pump with 200mm intake line for a capacity of 75 litres/second as per design, total time to fill the Reservoir of the capacity of 120,000cubic meters takes 444.45 hours or 56 days at 8hrs of daily operation. Whereas using 300 cubic meters/per day operation, it will take 400days. It means the actual filling rate is higher than 300cubic meters per day. At the same time, the annual storage is more than 60,000 cubic meters. Therefore, according to the new Nunavut Waters Regulations issued on April 18, 2014, the existing Water licence is recommended to be renewed as Type A.



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Department of Community and Government Services Nunalingni Kavamatkunnilu Pivikhaqautikkut Ministère des Services Communautaires et gouvernementaux

The following documents are attached for the consideration:

Project Proposal in English and Inuktitut

2. Water Licence application to NWB

3. O&M manual of the existing WWTP

O&M Manual of the new WTP

O&M Manual of the existing Waste Management Facility

6. Spill Contingency Plan

7. WWTP bypass Contingency Plan

8. O&M Manual of Fish Process Plant waste management Plan

9. Annual Report 2016

In these circumstances, I am requesting to renew the Water Licence of the Municipality of Pangnirtung as requested.

I will appreciate if you keep me in the loop of the approval process.

Thanking You.

Bhabesh Roy, M.A.Sc., P.Eng.

Municipal Planning Engineer

Community Government Services

Baffin Region, Government of Nunavut

P.O.Box 379, Pond Inlet, X0A 0S0

Ph-867 899 7314

Fax-867 899 7328

E-mail: broy@gov.nu.ca

Copy: Ralph Ruediger, Director, Community Development, GN-CGS Tim Brown, Director, Community Infrastructure, GN-CGS Ron Ladd, Senior Administrative Officer, Municipality of Pangnirtung



Application for Type B Water Licence # 3BM-PAN1417 Renewal to Type A of the Municipality of Pangnirtung Document Date: March 2017

Application Submission Date:

03/20/2017

Month/Day/Year

P.O. BOX 119 GJOA HAVEN, NUNAVUT XOB 1J0

Tel.: (867)360-6338 Fax:(867)360-6369 אבים אי בעריה הואראין און אין אריים אי בעריה אין אריים אריים אין אריים אר

Renewal Water Licence of the Municipality of Pangnitung



P.O. Box 119

TEL: (867) 360-6338

FAX: (867) 360-6369

DOS' ALCRY BOLLY GJOA HAVEN, NU X0B 1J0 NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYIT OFFICE DES EAUX DU NUNAVUT

APPLICATION FOR WATER LICENEC RENEWAL

Your application may be classified as a renewal only if all operations remain the same as previously licensed and only the term of the licence requires change. If your application contemplates:

- a change to the volume of water authorized for use;
- a new activity related to water use or waste disposal;
- a new component related to water use or waste disposal;
- a change in predicted environmental impacts(s); and/or
- a change to any term or condition of the original licence

your application is NOT classified as a renewal but rather an amendment and will require submission of an Application for Water Licence Amendment. Licensees applying for combined renewal / amendment are also referred to the Application for Water Licence Amendment.

The applicant is referred to the NWB's Guide 7: Licensee Requirements Following the Issuance of a Water Licence for more information about this application form.

Where possible, provide background information regarding the original licence application or attach previously submitted information.

EVICT	ING LICENCE NO: TYPE B: 3BM-PAN 1417
LAISI	ING LICENCE NO. TIPE B. SBIN-PAN 1417
1.	LICENSEE CONTACT INFORMATION
Is the	licensee the same as that referred to on the existing licence?
	X ☐ Yes ☐ No
	a licence assignment must be completed and approved by the NWB. A renewal will only be issued in the of the current licensee in the absence of assignment of the licence.
If the	licensee is the same, but the <u>name</u> of the licensee has changed, attach a certificate of name change.
Name	e: Ron Ladd, Senior Administrative Officer
Addre	ess: Municipality of Pangnirtung, P.O. Box 253, Nunavut, X0A 0R0
Fax:	e: 867-473-8953 867-473-8832

2. LICENSEE REPRESENTATIVE CONTACT INFORMATION – If different from Block 1	
Name: Bhabesh Roy, M.A.Sc., P.Eng.	
Address: MPE, Baffin Region, GN-CGS, Box 379; Pond Inlet, X0A 0S0, Nunavut.	
Phone: 867-899-7314 Fax: 867-899-7328 e-mail: broy@gov.nu.ca	
(Attach autorisation letter.)	
3. NAME OF PROJECT	
Is the name of the project the same as that considered in the existing water licence?	
X ☐ Yes ☐ No	
Indicate the name of the project including the name of the location:	
4. LOCATION OF UNDERTAKING	
Is the location of the undertaking the same as that considered in the existing water licence?	
X ☐ Yes ☐ No	
Project Extents	
NW: Latitude: (66 ° 09 ' 00 " N) Longitude: (65 ° 40 ' 34 " W) NE: Latitude: (° ' " N) Longitude: (° ' " W) SE: Latitude: (° ' " N) Longitude: (° ' " W) SW: Latitude: (° ' " N) Longitude: (° ' " W)	
Camp Location(s)	
Latitude: (° ' "N) Longitude: (° ' "W)	
5. MAP	
Are the locations of the main components of the undertaking the same as those considered in licence?	the existing
X ☐ Yes ☐ No	
Attach a topographical map, indicating the main components of the undertaking. Attached.	
NTS Map Sheet No.: Map Name: Map Scale:	-1

3.	NATURE OF INTEREST IN THE LAND
Is th	e nature of the interest in the land the same as that considered in the existing water licence?
	X ☐ Yes ☐ No
	ck any of the following that are applicable to the proposed undertaking (at least one box under the face' header must be checked).
	Sub-surface
	☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI) Date (expected date) of issuance: Date of expiry:
	Mineral Lease from Indian and Northern Affairs Canada (INAC) Date (expected date) of issuance: Date of expiry:
	Surface
	Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC) Date (expected date) of issuance: Date of expiry:
	Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA) Date (expected date) of issuance: Date of expiry:
	☐ IOL Authorization from Kivalliq Inuit Association (KivIA) Date (expected date) of issuance: Date of expiry:
	☐ IOL Authorization from Qikiqtani Inuit Association (QIA) Date (expected date) of issuance: Date of expiry:
	X Commissioner's Land Use Authorization Date (expected date) of issuance: Date of expiry:
	Other
	Date (expected date) of issuance: Date of expiry:
s th	ne name of the entity(s) holding authorizations the same as that considered in the existing water licence?
	X ☐ Yes ☐ No
lf N	o, a licence assignment must be completed and approved by the NWB.
Nan	ne of entity(s) holding authorizations: Municipality of Pangnirtung

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION				
Is the undertaking located in the same land use planning area as that considered in the existing licence?				
X ☐ Yes ☐ No				
Indicate the land use planning area in which the project is located.				
North Baffin Keewatin X☐ South Baffin Sanikiluaq Akunniq West Kitikmeot				
Was a land use plan conformity determination required from NPC prior to the issuance of the existing water licence?				
☐ Yes X☐ No				
If Yes, indicate date issued and attach copy				
Does the proposed renewal change the original NPC conformity determination or the need to obtain one?				
☐ Yes X☐ No				
If Yes, indicate date issued (or expected) and attach a copy. If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.				
8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION				
Was a screening determination required from NIRB prior to the issuance of the existing water licence?				
☐ Yes X☐ No				
If Yes, indicate date issued and attach copy.				
Does the proposed renewal change the original NIRB screening determination or the need to obtain one?				
X ☐ Yes ☐ No				
If Yes, indicate date issued (or expected) and attach a copy. This was issued on March 17, 2017.				
NIRB's screening report is attached.				
If No, provide written confirmation from NIRB confirming that a screening determination is not required.				
9. DESCRIPTION OF UNDERTAKING				
Is the description of the undertaking the same as that considered in the existing water licence?				
X□ Yes □ No				
List and attach plans and drawings or project proposal.				
Attached the O&M Manuals which contain Plans and Drawings.				

10. OPTIONS	
Are the alternative methods and locations that were co considered in the existing water licence?	nsidered to carry out the project the same as those
X□	Yes □ No
Provide a brief explanation of the alternative methods of	or locations that were considered to carry out the project.
11. CLASSIFICATION OF PRIMARY UNDERTAKE	KING
Is the primary undertaking the same as that considere	d in the existing water licence?
X□	Yes □ No
Indicate the primary classification of undertaking by ch	necking one of the following boxes.
☐ Industrial ☐ Mining and Milling (includes exploration/drill ☐ Conservation X☐ Municipal (includes camps/lodges)	Recreational
☐ Power See Schedule II of the Northwest Territories Waters Re	Miscellaneous (describe below): ———————————————————————————————————
12. WATER USE	
Is the type(s) of water use(s) the same as that consider	ered in the existing water licence?
X□	Yes No
Check the appropriate box(s) to indicate the type(s) of	water use(s) being applied for.
X To obtain water for camp/ municipal purpo To obtain water for industrial purposes To cross a watercourse To alter the flow of, or store water Other:	To divert a watercourse ☐ To modify the bed or bank of a watercourse ☐ Flood control

13. QUANTITY OF WATER INVOLVED		
Is the source of water the same as that considered in the existing licence?	X ☐ Yes	□No
Name of water source(s): Duval River to Storage Reservoir; Location Map is attache (show location(s) on map)	d.	
Is the quality of the water source and its available capacity the same as that consider	red in the existing	licence?
X☐ Yes ☐ No Describe the quality of the water source(s) and the available capacity(s):		
The main water source is Duval River and this runs only during summer seaso storage Reservoir of capacity 120,000 cubic meters is filled up every summer f		e
Is the overall estimated quantity of water to be used the same as that considered in	the existing licenc	e?
X Yes □ No		
Provide the overall estimated quantity of water to be used:		
138.02 m³/day (Note: This is equivalent to the consumption volume only. The a will be higher)	actual extraction	volume
Are the quantity(s) of water to be used from each source the same as those consider licence?	red in the existing	i
X ☐ Yes ☐ No		
Provide the estimated quantity(s) of water to be used from each source: 138.02 m ³ /c	lay	
Are the quantity(s) of water to be used for each purpose the same as those consider	red in the existing	licence?
X ☐ Yes ☐ No		
Provide the estimated quantities to be used for each purpose (camp, drilling, etc.): 2 (84,989 cubic meters annually) in 2027 based on the designed consumption 12 1805 population.		y for the
Are the method(s) of extraction the same as those considered in the existing licence	? X □ Ye	s 🗌 No
Describe the method(s) of extraction:		
Pumping water from Duval River to Storage Reservoir and then Storage Reservoir and the Storage Res	voir to Truck wa	ter tank.
Are the quantity(s) of water returned to source(s) the same as those considered in the	ne existing licence	?
X ☐ Yes ☐ No		
Estimated quantity(s) of water returned to source(s): 138.02 m³/day		
Are the quality(s) of water(s) returned to source(s) the same as those considered in	the existing liceno	e? Yes
X ☐ Yes ☐ No		
Describe the quality(s) of water(s) returned to source(s):138.02m³/day		

re the type(s) of waste(s) to be generated and/ or deposited the same as those considered in the existing cence? X Yes No Check the appropriate box(s) to indicate the types of waste(s) generated and deposited. X Sewage X Waste oil Greywater X Suld Waste Greywater X Suld Waste Animal Waste Other (describe): X Contaminated soil and/or water		WASTE				
heck the appropriate box(s) to indicate the types of waste(s) generated and deposited. X Sewage			(s) to be generated	d and/ or deposited the same as those cons	sidered in the existing]
X Sewage X Waste oil Greywater Hazardous X Bulky Items/Scrap Metal Animal Waste Other (describe):				X ☐ Yes ☐ No		
X Solid Waste	neck	the appropriate b	oox(s) to indicate th	e types of waste(s) generated and deposit	ed.	
		X Solid Waste ☐ Hazardous X Bulky Items ☐ Animal Waste	/Scrap Metal	☐ Greywater X☐ Sludges X☐ Contaminated soil and/or water		

5. QUANTITY	AND QUALITY OF WA	ASTE INVOLVED		
Are the quantity(s)	of the types of wastes	involved the same as	those considered in the	ne existing licence?
		X Yes 1	No	
Are the compositio	n(s) of the types of was	stes involved the sam	e as those considered	in the existing licence?
		X Yes I	No	
Are the method(s) licence?	of treatment for the typ	es of waste involved t	the same as those con	sidered in the existing
		X Yes □ N	No	
Are the method(s) licence?	of disposal for the type	s of waste involved th	e same as those cons	idered in the existing
		X Yes □ N	No	
For each type of watereatment and meth		14, describe its comp	osition, quantity in cub	ic meters/day, method o
Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Sewage	Wastewater and sludge	Unknown	WWTP	Trucking
Domestic waste	Various types	unknown	Land fill	Trucking
Metal waste	Various types	unknown	Metal Dump	Trucking
Fish waste	Various types of Fish	Unknown	Waste water effluent in WWTP and solid waste in the landfill site	Trucking
Waste Oil	Various types	Unknown	Stored in the Drums	Waste oil Drums

16. OTHER AUTHORIZATIONS
In addition to the sub-surface and surface land use authorizations provided in Block 6, are the same authorizations required as considered in the existing licence?
X□Yes □No
For each provide the following:
Authorization:
Administering Agency:
Project Activity:
Date (expected date) of issuance: Date of expiry:
17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES
Are predicted environmental impacts of the undertaking and proposed mitigation measures the same as those considered in the existing water licence?
X ☐ Yes ☐ No
Describe direct, indirect, and cumulative impacts related to water and waste.
18. WATER RIGHTS OF EXISTING AND OTHER WATER USERS
Are the effects of the undertaking on any known persons or property including those that hold licences for water use in precedence to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature, the same as those considered in the existing water licence?
X ☐ Yes ☐ No
Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licenses for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.
Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.
19. INUIT WATER RIGHTS
Are the effects of the undertaking on the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL) the same as those considered in the existing water licence?
X ☐ Yes ☐ No
Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).

20. CONSULTATION - Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.
Consultation was made with SAO face to face and over tele phone several times.
21. SECURITY INFORMATION Is the financial security assessment the same as that considered in the existing water licence?
X Yes No Is the estimate of the total financial security for final reclamation the same as that considered in the existing water licence?
Yes No Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.
Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the <i>Mine Site Reclamation Policy for Nunavut</i> , Indian and Northern Affairs Canada, 2002.
22. FINANCIAL INFORMATION
Is the statement of financial security the same as that considered in the existing water licence?
X Yes □ No
Provide an updated statement of financial security.
If the applicant is a business entity please answer the questions below: N/A
Is the list of the officers of the company the same as those considered in the existing water licence?
X☐ Yes ☐ No Provide a list of the officers of the company. N/A
Is the Certificate of Incorporation or evidence of registration of the company name the same?
X ☐ Yes ☐ No
Attach a copy of the Certificate of Incorporation or evidence of registration of the company name. Municipality of Pangnirtung.

23. STUDIES UNDERTAKEN TO DATE:

- Spill Contingency Plan and Bypass planning of the WWTP
- Design and Built of the WTP: O&M manual
- Design and Optimization of the WWTP: O&M Manual
- O&M Manual of the existing Waste Management Facility
- O&M manual of the Fish Plant wastes
- Annual Report in 2016

List and attach updated studies, reports, research etc.

Attached.

Provide a compliance assessment and status report including a response to any inspector's reports. The licensee

must contact the NWB for licence specific direction in completing the assessment and report. If in non-compliance, a licence may not be issued until compliance is achieved. If in non-compliance, attach plans/reports for consideration. Application will not be processed if significant issues of non-compliance exist.

Is the time schedule for all phases of development (construction, operations, closure and post closure) the sa	me as
that considered in the existing licence?	
X ☐ Yes ☐ No	
Note: The Facilities under this Water Licence are on operational mode.	
Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).	
operation, closure, and post closure).	
Construction	
Proposed Start Date: Proposed Completion Date: (month/year) (month/year)	
(month/year) (month/year) Operation	
Proposed Start Date: Proposed Completion Date: (month/year) (month/year)	
Closure	
Proposed Start Date: Proposed Completion Date: (month/year) (month/year)	
Proposed Start Date: Proposed Completion Date:	
Proposed Start Date: Proposed Completion Date: (month/year) (month/year)	
For each applicable phase of development indicate which season(s) activities occur.	
Construction	
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season	
Operation Winter Spring Summer Fall All season	
Closure	
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season	
Post - Closure	
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season	
25. PROPOSED TERM OF LICENCE	
On what date does the existing licence expire? September 15, 2017	
Indicate the proposed term of the renewal (maximum of 25 years): September 16, 2027 (10 years)	
Requested date of renewal issuance: September 16,2017 Requested Expiry Date: September 15,2027	
(month/year) (month/year)	
(The requested date of renewal issuance must be at least three (3) months from the date of application for a type B	water
licence and <u>at least</u> one (1) year from the date of application for a type A water licence, to allow for processing of the	
licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing la	nd use
planning or development impact requirements, time for the applicant to prepare and submit a water licence applica accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to reque	
additional information. See the NWB's <i>Guide 5: Processing Water Licence Applications</i> for more information)	310 101

24.

PROPOSED TIME SCHEDULE

26. ANNUAL REPORTING Is the annual report template expected to be the same as that considered in the existing licence?				
20		M	7V []N-	
X Yes No If not using the NWB's <u>Standardized Form for Annual Reporting</u> , provide details regarding the content of annual reports and a proposed outline or template of the annual report.				
2016 Annual Report is attached				
2010 Aimail Report is attached				
27. CHECKLIST				
The following must be included with the application for renewal for the water licensing process to begin. Completed Application for Water Licence Renewal form.				
	X Yes	□ No.	If no data avacated	
		□ No	If no, date expected	
	Updated plans, including designs and reports (see Block 23).			
	X Yes	□No	If no, date expected	
	Updated security assessment (see Block 21).			
	opanion account (account in fact and in			
	X Yes	☐ No	If no, date expected	
	Updated financial staten	nent (see Block 22).		
		00 N		
	X Yes		If no, date expected	
	Compliance Assessment / Status Report (see Block 23).			
	V	□Ne.	If no data assessed	
	X☐ Yes English Summary of Rer		If no, date expected Project Proposal)	
	Y Voc	□No	If no date expected	
	louktitut and/or louinnad	tun Summary of Re	If no, date expected newal Application.(Project Proj	nosal)
	maxitat androi maimaq	tan Gammay or rea	inoral Application (1 10)000 1 10)	3034.)
	X Yes	□No	If no, date expected	
		CDN (Payee Rece	eiver General for Canada).	
		•		
	☐ Yes	X No	If no, date expected	P CONTROL OF THE PARTY OF THE P
	Water Use Fee Deposit of \$30.00 CDN (Payee Receiver General for Canada). The actual water use fee			
	will be calculated by the NWB based upon the amount of water authorized for use in accordance with the			
	Regulations at the time of issuance of the licence.			
	☐ Yes	X □ No	If no, date expected	
20	CICNIATUDE			
28. SIGNATURE				
I, RON LADD, Senior Administrative Officer (SAO), Municipality of Pangnirtung,				
certify that the application requires no changes to water use or waste disposal as previously authorized and that the				
Information given on this form is, to the best of my knowledge, correct and complete.				
^		9 16		
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1000	VT()	Lew group	<u></u>	note 20/2017
	vame	Signature		Date !