



General Water Licence Application  
(Application for a new Water Licence)

April 2010

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NUNAVUT IMALIRIYIN KATIMAYINGI  
NUNAVUT WATER BOARD  
OFFICE DES EAUX DU NUNAVUT

## DOCUMENT MANAGEMENT

Original Document Date: April 2010

### DOCUMENT AMENDMENTS

	Description	Date
(1)		
(2)		
(3)		
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### GENERAL WATER LICENCE APPLICATION (APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: Guide to Completing and Submitting a Water Licence Application for a New Licence for more information about this application form.

LICENCE NO: (for NWB use only)	
<b>1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION</b> (name, address)  Dan McQuinn, P. Eng. Stantec Consulting Ltd. 40 Highfield Park Drive, Suite 102 Dartmouth, NS B3A 0A3  Phone: 902-468-7777 _____ Fax: 902-468-9009 _____ e-mail: <a href="mailto:dan.mcquinn@stantec.com">dan.mcquinn@stantec.com</a>	<b>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION</b> if different from Block 1 (name, address)  Carey Sibbald Stantec Consulting Limited P.O. Box 1680 Yellowknife, NT, X1A 2P3  Phone: 867-920-2216 Fax: 867-920-2278 e-mail: <a href="mailto:carey.sibbald@stantec.com">carey.sibbald@stantec.com</a> (Attach authorization letter.)
<b>3. NAME OF PROJECT</b> (including the name of the project location)  Geotechnical Investigation at the Nanisivik Naval Facility Project	
<b>4. LOCATION OF UNDERTAKING</b>  The project will take place at the existing Mine Port Facility at Nanisivik. The Federal government is currently in the process of dismantling much of the existing infrastructure at the Mine Port Facility to undertake construction of the proposed Nanisivik Naval Facility.  <b>Project Extents</b> NW: Latitude: (73° 4' 16" N) Longitude: (84° 33' 2" W) NE: Latitude: (73° 4' 14" N) Longitude: (84° 32' 40" W) SE: Latitude: (73° 3' 56" N) Longitude: (84° 32' 40" W) SW: Latitude: (73° 3' 57" N) Longitude: (84° 33' 14" W)  <b>Camp Location(s) – N/A</b>  Latitude: ( ° ' " N) Longitude: ( ° ' " W)	
<b>5. MAP</b> - Attach a topographical map, indicating the main components of the undertaking.  NTS Map Sheet No.: 48C/01 _____ Map Name: _____ Map Scale: _____  See two drawings attached for locations of geotechnical boreholes and potential borrow areas.	

- 6. NATURE OF INTEREST IN THE LAND** - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' 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: July 30, 2010 Date of expiry: November 30, 2010

☐ 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: \_\_\_\_\_

☐ Commissioner's Land Use Authorization  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Other: \_\_\_\_\_  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

Name of entity(s) holding authorizations: \_\_\_\_\_

**7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION**

Indicate the land use planning area in which the project is located.

<input checked="" type="checkbox"/> North Baffin	<input type="checkbox"/> Keewatin
<input type="checkbox"/> South Baffin	<input type="checkbox"/> Sanikiluaq
<input type="checkbox"/> Akunnig	<input type="checkbox"/> West Kitikmeot

Is a land use plan conformity determination required?

☒ Yes ☐ No

If Yes, indicate date issued and attach 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**

Is an Article 12 Part 4 screening determination required?

☐ Yes

☒ No

If Yes, indicate date issued and attach copy \_\_\_\_\_

If No, provide written confirmation from NIRB confirming that a screening determination is not required.

**9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.**

See Attached Application Summary and Questionnaire.

**10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.**

Alternate methods of carrying out the project were not considered as the proposed methods are considered the best options to obtain required data and mitigate all environmental concerns.

No alternate locations were considered to carry out the project as data for selected areas are needed to assess stability of the existing wharf, design and construction of foundations for new infrastructure, and/or repair/rehabilitation of the existing infrastructure components. Data are needed for the potential borrow areas to characterise the granular material present.

**11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.**

☐ Industrial

☐ Agricultural

☒ Mining and Milling (includes exploration/drilling/exploration camps)

☐ Conservation

☐ Municipal (includes camps/lodges)

☐ Recreational

☐ Power

☐ Miscellaneous (describe below):  
\_\_\_\_\_

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings.

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your application.

☐ Hydrostatic Testing

☐ Tannery

☐ Tourist / Remote Camp

☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil

☐ Onshore Oil and Gas Exploration Drilling

☒ Mineral Exploration / Remote Camp

☐ Advanced Exploration

☐ Mine Development

☐ Municipal

☐ General Water Works

☐ Power

<b>12.</b>	<p><b>WATER USE</b> - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> To obtain water for camp/ municipal purposes  <input checked="" type="checkbox"/> To obtain water for industrial purposes  <input type="checkbox"/> To cross a watercourse  <input type="checkbox"/> To alter the flow of, or store water  <input type="checkbox"/> Other: _____ </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> To divert a watercourse  <input type="checkbox"/> To modify the bed or bank of a watercourse  <input type="checkbox"/> Flood control </td> </tr> </table>	<input type="checkbox"/> To obtain water for camp/ municipal purposes <input checked="" type="checkbox"/> To obtain water for industrial purposes <input type="checkbox"/> To cross a watercourse <input type="checkbox"/> To alter the flow of, or store water <input type="checkbox"/> Other: _____	<input type="checkbox"/> To divert a watercourse <input type="checkbox"/> To modify the bed or bank of a watercourse <input type="checkbox"/> Flood control
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<b>13.</b>	<p><b>QUANTITY AND QUALITY OF WATER INVOLVED</b> - For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.</p> <p>Name of water source(s) (show location(s) on map): Strathcona Sound (marine). _____</p> <p>Describe the quality of the water source(s) and the available capacity: _____          __Quality of water in Strathcona Sound is considered good for drilling purposes; available capacity is very large. _____</p> <p>Provide the overall estimated quantity of water to be used: __0.75_____ m<sup>3</sup>/day</p> <p>Provide the estimated quantity(s) of water to be used from each source:          _____0.75 m<sup>3</sup>/day_____</p> <p>Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)          ____All water use will be for geotechnical drilling purposes_____</p> <p>Describe the method of extraction(s): __Water will be withdrawn from Strathcona Sound using a 50 mm hose with intake screen on the end. Intake screen will be 2 mm in size to avoid fish entrapment. _____</p> <p>Estimated quantity(s) of water returned to source(s) __0.75_____ m<sup>3</sup>/day</p> <p>Describe the quality of water(s) returned to source(s): __Water will be of similar quality when returned to source as when it was withdrawn; minimal additions of silt may occur though these are expected to be less than 25 mg/L. _____</p>		
<b>14.</b>	<p><b>WASTE</b> – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Sewage  <input type="checkbox"/> Solid Waste  <input type="checkbox"/> Hazardous  <input type="checkbox"/> Bulky Items/Scrap Metal  <input type="checkbox"/> Animal Waste  <input checked="" type="checkbox"/> Other (describe): __Drill water with minor amounts of silt_____ </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Waste oil  <input type="checkbox"/> Greywater  <input type="checkbox"/> Sludges  <input type="checkbox"/> Contaminated soil and/or water </td> </tr> </table>	<input type="checkbox"/> Sewage <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous <input type="checkbox"/> Bulky Items/Scrap Metal <input type="checkbox"/> Animal Waste <input checked="" type="checkbox"/> Other (describe): __Drill water with minor amounts of silt_____	<input type="checkbox"/> Waste oil <input type="checkbox"/> Greywater <input type="checkbox"/> Sludges <input type="checkbox"/> Contaminated soil and/or water
<input type="checkbox"/> Sewage <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous <input type="checkbox"/> Bulky Items/Scrap Metal <input type="checkbox"/> Animal Waste <input checked="" type="checkbox"/> Other (describe): __Drill water with minor amounts of silt_____	<input type="checkbox"/> Waste oil <input type="checkbox"/> Greywater <input type="checkbox"/> Sludges <input type="checkbox"/> Contaminated soil and/or water		

- 15. QUANTITY AND QUALITY OF WASTE INVOLVED** – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Water	Water with minor amounts of silt	0.75 m <sup>3</sup> /day	None	Water will be collected from the drill to allow the minor amounts of silt to settle out. Water will then be returned to Strathcona Sound. Collected silt (estimated to be less than 1 kg) will be deposited on the ground in a low lying depression near the drill locations, at least 30 m from the high water mark of any waterbody.

- 16. OTHER AUTHORIZATIONS** – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:

Authorization: \_\_\_\_\_Project evaluation\_\_\_\_\_

Administering Agency: \_\_\_\_\_Fisheries & Oceans Canada\_\_\_\_\_

Project Activity: \_\_\_Use of sea water for drilling & disposal of sea water; drilling as per DFO's Operational Statement\_\_\_\_\_

Date (expected date) of issuance: \_July 30, 2010\_ Date of expiry: \_\_\_June 2011\_\_\_\_\_

<b>17.</b>	<b>PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES</b> - Describe direct, indirect, and cumulative impacts related to water and waste.  Environmental impacts arising from the geotechnical drilling program are expected to be minimal. Drilling is being completed in areas previously altered by the existing Mine Port Facility. Additionally, all water being disposed of will be collected to allowed any minor additions of silt (maximum of 25 mg/L) to settle out. Settle water will be released back to Strathcona Sounds and is not expected to cause adverse impacts to any waterbodies.
<b>18.</b>	<b>WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER</b>  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 licences 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.  NONE
<b>19.</b>	<b>INUIT WATER RIGHTS</b>  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).  NONE
<b>20.</b>	<b>CONSULTATION</b> – 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.  NONE
<b>21.</b>	<b>SECURITY INFORMATION</b>  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. <u>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.</u> 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.  NONE



**22. FINANCIAL INFORMATION**

Provide a statement of financial responsibility.

If the applicant is a business entity, provide a list of the officers of the company.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

**23. STUDIES UNDERTAKEN TO DATE** - List and attach copies of studies, reports, research, etc.

- (1) Report No. 727-1 Preliminary Geotechnical Investigation Strathcona Sound Project, Terratech, August 6, 1973.
- (2) Wharf Drawings Designed by Carr and Donald, Site Plan L2; Mooring Dolphins Location Plan, L3; Dock and Approach Roadway, Details of Rockfill, C1; Dock Details of Sheet Pile Cells, C2; Cell 2 Concrete Details, C17; Cells 1 and 3 Reinforcing Details of Deck Slabs, C18. August 1974.
- (3) Feasibility Study Marine Shipping Terminal Strathcona Sound, Baffin Island, Carr & Donald & Assoc. July 1973.
- (4) Construction of a Deep-Sea Dock in the Arctic, M. Girgrah and V.K. Shah, Public Works Canada, 1977.
- (5) Nanisivik Wharf Inspection, Public Works Canada (extracts) January 1986.
- (6) Nanisivik Wharf Inspection-1994, V.K. Shah, D.E. Curtis, Public Works Canada, October 1994.
- (7) Chart 7512-Strathcona Sound and Adams Sound.
- (8) Technical Specification for Marine Berth Facility for Ministry of Transport Canada at Strathcona Sound, Baffin Island NWT, Carr & Donald & Associates. 1974.
- (9) Draft Site Topographic Survey, Nanisivik Wharf, Site Inspection and Condition Report, National Defence, 2008/11/04.
- 10) Site Inspection and Condition Report, Nanisivik Wharf Nunavut, Technical Report Preliminary Document, Y.Ref: PWZ-8-25095(105), O.Ref: 08-11369-1, Page 13, SPG Hydro International Inc.
- 11) Defence Construction Canada Nanisivik Wharf Desk Top Review Aecom Canada Ltd. December 7 2009

**24. PROPOSED TIME SCHEDULE** – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

Operation

Proposed Start Date: August 2010 Proposed Completion Date: June 2011  
(month/year) (month/year)

Closure

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

Post - Closure

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**

Number of years (maximum of 25 years): 1 years

Requested Date of Issuance: August 2010 Requested Expiry Date: June 2011  
(month/year) (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

**26. ANNUAL REPORTING** – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

Stantec will provide the NWB with an annual report following the completion of the geotechnical drilling program. Stantec will use the NWB's *Standardized Form for Annual Reporting*.

**27. CHECKLIST** – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☐ Yes ☒ No If no, date expected Late July 2010, following NWB notice to NPC ;

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☐ Yes ☒ No If no, date expected Late July 2010, following NWB notice to NIRB ;

Completed General Water Licence Application form.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

☒ Yes ☐ No If no, date expected \_\_\_\_\_

English Summary of Application.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Inuktitut and/or Inuinnaqtun Summary of Application.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Application Fee of \$30.00 CDN (Payee Receiver General for Canada).

☒ Yes ☐ No If no, date expected \_\_\_\_\_

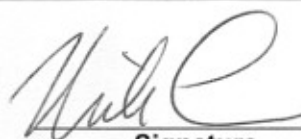
Water Use Fee Deposit of \$30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

**SIGNATURE**

Carey Sibbald  
Name (Print)

Env Scientist  
Title (Print)



Signature

July 16, 2010  
Date

*for Carey Sibbald*