



## Application for Water Licence Renewal

Document Date: April 2013

Application Submission Date: May/25/2017

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NUNAVUT WATER BOARD  
OFFICE DES EAUX DU NUNAVUT

## DOCUMENT MANAGEMENT

Original Document Date: April 2010

### DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 7	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)	New NWB logo and request for background information	April 2013
(4)		
(5)		
(6)		
(7)		
(8)		
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NUNAVUT WATER BOARD

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## APPLICATION FOR WATER LICENCE 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.

EXISTING LICENCE NO: 2BE-HIG1217 TYPE "B"

### 1. LICENSEE CONTACT INFORMATION

Is the licensee the same as that referred to on the existing licence?

☒ Yes ☐ No

If No, a licence assignment must be completed and approved by the NWB. **A renewal will only be issued in the name of the current licensee in the absence of assignment of the licence.**

If the licensee is the same, but the name of the licensee has changed, attach a certificate of name change.

Name: MMG RESOURCES INC.

Address: PO Box 91460, West Vancouver, BC, V7V 3P1

Phone: +1 778 239 2965

Fax: \_\_\_\_\_

e-mail: THEODORE.MURARO@MMG.COM

**2. LICENSEE REPRESENTATIVE CONTACT INFORMATION** – If different from Block 1.

Name: *THEODORE MURARO*

Address:

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

e-mail: \_\_\_\_\_

(Attach authorization letter.)

**3. NAME OF PROJECT**

Is the name of the project the same as that considered in the existing water licence?

☒ Yes ☐ No

Indicate the name of the project including the name of the location: \_\_\_\_\_ *HIGH LAKE* \_\_\_\_\_

**4. LOCATION OF UNDERTAKING**

Is the location of the undertaking the same as that considered in the existing water licence?

☒ Yes ☐ No

**Project Extents**

NW: Latitude: ( *68° 00' 00" N* )

Longitude: ( *111° 30' 00" W* )

NE: Latitude: ( *68° 00' 00" N* )

Longitude: ( *109° 30' 00" W* )

SE: Latitude: ( *66° 45' 00" N* )

Longitude: ( *109° 30' 00" W* )

SW: Latitude: ( *66° 45' 00" N* )

Longitude: ( *111° 30' 00" W* )

**Camp Location(s)**

Latitude: ( *67° 22' 42" N* )

Longitude: ( *110° 55' 30" W* )

**5. MAP**

Are the locations of the main components of the undertaking the same as those considered in the existing licence?

☒ Yes ☐ No

Attach a topographical map, indicating the main components of the undertaking.

NTS Map Sheet No.: *76M/76N*

Map Name: *Hepburn Island*

Map Scale: *1:150,000*

## 6. NATURE OF INTEREST IN THE LAND

Is the nature of the interest in the land the same as that considered in the existing water licence?

☒ Yes ☐ No

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: SEPTEMBER 2021

☒ Mineral Lease from Indian and Northern Affairs Canada (INAC)

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: APRIL 2034

### 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: \_\_\_\_\_

☐ Commissioner's Land Use Authorization

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

☒ Other a small surface land lease (76M/7-1-4) is maintained over the immediate camp location that was grandfathered into the IOL package as part of the historic camp location. See accompanying map.

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

**NOTE: Land Use Authorization for IOL ground previously held with the Kitikmeot Inuit Association has received approval for closure (KTL308C008). Closure approval for Land Use Authorization previously held on surrounding Crown Lands (N2011C0033) has been requested and remains pending.**

Is the name of the entity(s) holding authorizations the same as that considered in the existing water licence?

☒ Yes ☐ No

If No, a licence assignment must be completed and approved by the NWB.

Name of entity(s) holding authorizations:

MMG RESOURCES INC.

**7. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION**

Was a screening determination required from NIRB prior to the issuance of the existing water licence?

☒ Yes ☐ No

If Yes, indicate date issued and attach copy. MARCH 29, 2012

Does the proposed renewal change the original NIRB screening determination or the need to obtain one?

☐ Yes ☒ No

If Yes, indicate date issued (or expected) and attach a copy. \_\_\_\_\_

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

**8. DESCRIPTION OF UNDERTAKING**

Is the description of the undertaking the same as that considered in the existing water licence?

☒ Yes ☐ No

List and attach plans and drawings or project proposal.

*See appendices attached to this document*

**9. OPTIONS**

Are the alternative methods and locations that were considered to carry out the project the same as those considered in the existing water licence?

☒ Yes ☐ No

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

## 10. CLASSIFICATION OF PRIMARY UNDERTAKING

Is the primary undertaking the same as that considered in the existing water licence?

☒ Yes ☐ No

Indicate the primary classification of undertaking by checking one of the following boxes.

- |  |  |
|--|--|
| <input type="checkbox"/> Industrial  | <input type="checkbox"/> Agricultural                    |
| <input checked="" type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps) |  |
| <input type="checkbox"/> Conservation  | <input type="checkbox"/> Recreational                    |
| <input type="checkbox"/> Municipal (includes camps/lodges)   | <input type="checkbox"/> Miscellaneous (describe below): |
| <input type="checkbox"/> Power   |  |

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

## 11. WATER USE

Is the type(s) of water use(s) the same as that considered in the existing water licence?

☒ Yes ☐ No

Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> To obtain water for camp/ municipal purposes |   |
| <input checked="" type="checkbox"/> To obtain water for industrial purposes      | <input type="checkbox"/> To divert a watercourse                    |
| <input type="checkbox"/> To cross a watercourse                                  | <input type="checkbox"/> To modify the bed or bank of a watercourse |
| <input type="checkbox"/> To alter the flow of, or store water                    | <input type="checkbox"/> Flood control                              |
| <input type="checkbox"/> Other: _____  |   |

## 12. QUANTITY OF WATER INVOLVED

Is the source of water the same as that considered in the existing licence?

☒ Yes

☐ No

Name of water source(s): The principal source for domestic usage is High Lake. Water sources for drilling will vary depending on drill target locations, but it should be noted that there is no drilling contemplated as the project is on care and maintenance.

(show location(s) on map)

Is the quality of the water source and its available capacity the same as that considered in the existing licence?

☒ Yes

☐ No

Describe the quality of the water source(s) and the available capacity(s): High Lake is the principal source for the High Lake camp. Several years of monitoring by Gartner Lee found the Lake to be void of aquatic life due to the elevated pH levels caused by the surrounding geology and the natural oxidation of the contained metals. The lake volume is roughly 600,000 cubic meters.

Is the overall estimated quantity of water to be used the same as that considered in the existing licence?

☒ Yes

☐ No

Provide the overall estimated quantity of water to be used: 100 m<sup>3</sup>/day

Are the quantity(s) of water to be used from each source the same as those considered in the existing licence?

☒ Yes

☐ No

Provide the estimated quantity(s) of water to be used from each source: For domestic use purposes 5m<sup>3</sup> per day would be drawn from High Lake. If drilling is considered, another 30m<sup>3</sup> for each drill operating would be removed from adequate sources proximal to those drill hole locations. There is no drilling contemplated in the near future as this project is effectively on care and maintenance.

Are the quantity(s) of water to be used for each purpose the same as those considered in the existing licence?

☒ Yes

☐ No

Provide the estimated quantities to be used for each purpose (camp, drilling, etc.): Water for general camp use (estimated 5m<sup>3</sup>/day) as well as for diamond drilling (estimated 30m<sup>3</sup>/day per drill)

Are the method(s) of extraction the same as those considered in the existing licence?

☒ Yes

☐ No

Describe the method(s) of extraction: Submersible electric pumps with screened intakes are employed for domestic water usage in camp applications, and a diesel or gas powered pump is normally used for extraction of water from adequate local sources proximal to areas of activity during drilling. Combustion motor operated pumps are used in conjunction with spill trays and spill containment equipment, and never located closer than 10m to the water body they are drawing from. Sources are evaluated to ensure that their flow volumes will be sufficient to support drilling activities without overly impacting the local water balance.

Are the quantity(s) of water returned to source(s) the same as those considered in the existing licence?

☒ Yes

☐ No

Estimated quantity(s) of water returned to source(s): With all of domestic water returned, and an estimated loss of 25% of circulated water for each of the drills, we estimate that at maximum usage of 100m<sup>3</sup>/day, approximately 75 m<sup>3</sup>/day would be indirectly returned to the environment after adequate settling and filtration.

Are the quality(s) of water(s) returned to source(s) the same as those considered in the existing licence?

☒ Yes

☐ No



Describe the quality(s) of water(s) returned to source(s): Water that does not escape into fractures or faults within the country rock and/or "lost" during the process of drilling returns to surface, where it is collected and passed through settling tanks to remove any presence of 'cuttings' or ground rock transported from the bit face. Once the water has been clarified through this process of settling, it can be re-used and is normally pumped back down the drill hole, repeating the process. It is estimated that the water normally "lost" or "consumed" by the drilling process at the bit is roughly 25% of that water circulated daily (+/- 6 to 7m<sup>3</sup>) depending on ground conditions. Water that is not re-used can be released into the environment to filter naturally into the ground water table, as is the case with whatever water is left at the completion of the drill hole. All additives used downhole in the drilling process are natural, environmentally friendly products and biodegradable.

### 13. WASTE

Are the type(s) of waste(s) to be generated and/ or deposited the same as those considered in the existing licence?

☒ Yes ☐ No

Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

- |  |   |
|--|---|
| <input type="checkbox"/> Sewage  | <input type="checkbox"/> Waste oil                      |
| <input type="checkbox"/> Solid Waste   | <input checked="" type="checkbox"/> Greywater           |
| <input type="checkbox"/> Hazardous   | <input checked="" type="checkbox"/> Sludges             |
| <input type="checkbox"/> Bulky Items/Scrap Metal                                       | <input type="checkbox"/> Contaminated soil and/or water |
| <input type="checkbox"/> Animal Waste  |   |
| <input type="checkbox"/> Other (describe): <u>Organic food waste from camp kitchen</u> |   |

### 14. QUANTITY AND QUALITY OF WASTE INVOLVED

Are the quantity(s) of the types of wastes involved the same as those considered in the existing licence?

☒ Yes ☐ No

Are the composition(s) of the types of wastes involved the same as those considered in the existing licence?

☒ Yes ☐ No

Are the method(s) of treatment for the types of waste involved the same as those considered in the existing licence?

☒ Yes ☐ No

Are the method(s) of disposal for the types of waste involved the same as those considered in the existing licence?

☒ Yes ☐ No

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
<i>"burnable" food and paper or cardboard food packaging</i>	<i>Organic and inorganic waste from camp kitchens</i>	<i>0.50m<sup>3</sup>/day</i>	<i>Incineration and subsequent collection and packaging for shipping</i>	<i>Removal to Yellowknife for proper disposal by a certified agency (KBL Environmental)</i>
<i>Grey water</i>	<i>Water contaminated with food waste from kitchens or from showers/sinks</i>	<i>5m<sup>3</sup>/day</i>	<i>All kitchen grey water passes through a grease trap to collect any larger food particles and greases, and then into a sump which serves to settle out remaining particles and allow natural re-absorption into sand and gravels. Grey water from washroom showers and sinks passes directly into the sumps.</i>	<i>Returned to environment having passed through a grease trap and sump which allows natural filtration through sand and gravel esker material</i>
<i>"non-burnable" waste as defined by Canadian Regulatory bodies</i>	<i>Plastic packaging or bottling, scrap metal, treated wood products</i>	<i>0.25m<sup>3</sup>/day</i>	<i>Waste streaming employed on site will separate these products into proper containment for removal from site</i>	<i>Removal to Yellowknife for proper disposal by a certified agency (KBL Environmental)</i>
<i>Waste contaminated by petroleum products, or waste that is considered hazardous.</i>	<i>Used filters from combustion motors, batteries, aerosol spray cans</i>	<i>0.10m<sup>3</sup>/day</i>	<i>Waste streaming employed on site will separate these products into properly marked containment for removal from site</i>	<i>Removal to Yellowknife for proper disposal by a certified agency using Transport Canada Hazardous Waste Regulations.</i>
<i>Sewage</i>	<i>Human waste from bathrooms</i>	<i>0.25m<sup>3</sup>/day</i>	<i>Waste is collected in "pacto" toilets and incinerated at site</i>	
<i>Sludge</i>	<i>Mud created by drill cuttings that settle in sumps</i>	<i>0.50m<sup>3</sup>/day</i>	<i>Sediment is collected in settling tanks and transferred to large micro fibre bags for decanting, drying, and transport</i>	<i>Resulting dry material is removed from site for proper disposal</i>

**\* These volume estimations are based on capacity camp occupancy and the operation of two diamond drills, both of which are aligned with the previous terms of the license but which are not contemplated, as the site is on care and maintenance.**

## 15. 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?

☒ Yes ☐ No

For each provide the following:

Authorization: \_\_\_\_\_

Administering Agency: \_\_\_\_\_

Project Activity: \_\_\_\_\_

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

## 16. 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?

☒ Yes ☐ No

Describe direct, indirect, and cumulative impacts related to water and waste.

## 17. 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?

☒ 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 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.

## 18. 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?

☒ 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).

**19. 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.

**20. SECURITY INFORMATION**

Is the financial security assessment the same as that considered in the existing water licence?

☒ 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 *Mine Site Reclamation Policy for Nunavut*, Indian and Northern Affairs Canada, 2002.

**21. FINANCIAL INFORMATION**

Is the statement of financial security the same as that considered in the existing water licence?

☒ Yes ☐ No

Provide an updated statement of financial security.

If the applicant is a business entity please answer the questions below:

Is the list of the officers of the company the same as those considered in the existing water licence?

☐ Yes ☒ No

Provide a list of the officers of the company.

SAHBA SAFAVI  
STEVEN JAMES RYAN  
MICHAEL G.M. STEVERING

Is the Certificate of Incorporation or evidence of registration of the company name the same?

☒ Yes ☐ No

Attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

## 22. STUDIES UNDERTAKEN TO DATE

List and attach updated studies, reports, research etc.

*See attached appendices with a complete history of work to date on the project as well as latest inspection reports from Eva Paul*

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.

## 23. PROPOSED TERM OF LICENCE

On what date does the existing licence expire? May 31, 2017

Indicate the proposed term of the renewal (maximum of 25 years): 5 years

Requested date of renewal issuance: July/2017 Requested Expiry Date: July/2022  
(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 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)

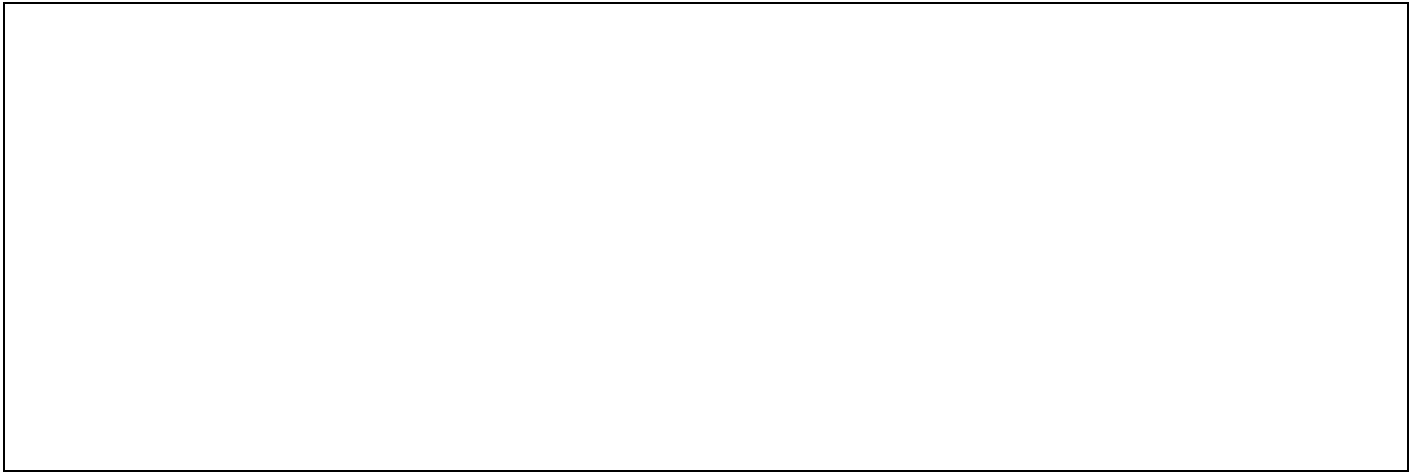
## 24. ANNUAL REPORTING

Is the annual report template expected to be the same as that considered in the existing licence?

☒ Yes ☐ No

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.

*Annual reports have been provided to the Nunavut Water Board on an annual basis, the last of which was submitted in January of 2017. A copy of that report is included in the appendices for review.*



## 25. 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.

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

Updated plans, including designs and reports (see Block 23).

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

Updated security assessment (see Block 21).

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

Updated financial statement (see Block 22).

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

Compliance Assessment / Status Report (see Block 23).

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

English Summary of Renewal Application.

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

Inuktitut and/or Inuinnaqtun Summary of Renewal 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 \_\_\_\_\_

**26. SIGNATURE**

I, THEODORE J. MURARO (print name)

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.



05 JUNE 2017

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date