

Land and Water Boards of the Mackenzie Valley



APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE IN NON-FEDERAL AREAS

Subsection 5(1) and Schedule C of the [Waters Regulations](#)

Use an "X" to indicate which Board the Application is being made to:	Mackenzie Valley Land and Water Board:	X	Sahtu Land and Water Board:	
	Wek'èezhìi Land and Water Board:		Gwich'in Land and Water Board:	

To complete this form, please refer to the LWB [Guide to the Water Licensing Process](#) (Guide) and fill in the grey fields; attach additional pages, as necessary. Indicate N/A in the grey fields for Items or parts of Items that are not applicable. An application package checklist is provided in the Guide. Review the following LWB guidance for formatting your Application Package:

- [Document Submission Standards](#)
- [Standard Outline for Management Plans](#)



Received: May 28, 2024

File #: MV2024L8-0006

Copied to: TM/REG

If applicable, provide the existing or current Water Licence number:			
Use an "X" to indicate if this Application is accompanied by another Application for a Water Licence in a federal area and/or a Land Use Permit.	Water Licence:		
	Land Use Permit:		

1. NAME AND CONTACT INFORMATION – APPLICANT

Project Name:	Liard River Ferry Landing Maintenance		
Applicant's Name:	Jacqueline Demers		
Position:	Reginal Superintendent – Dehcho		
Company Name:	GNWT Infrastructure		
Mailing Address:	9706-100 Street PO Box 86		
Community:	GNWT Infrastructure	Telephone:	867-695-7650
Prov/Terr:	NT	Email:	Jacqueline@gov.nt.ca
Postal Code:	X0E 0N0	Other:	

2. NAME AND CONTACT INFORMATION – APPLICANT’S HEAD OFFICE

Include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package.

Use an “X” to indicate this information is the same as Item 1 above:		X	
Name:			
Position:			
Company Name:			
Mailing Address:			
Community:		Telephone:	
Prov/Terr:		Email:	
Postal Code:		Other:	

3. LOCATION OF PROJECT

Use the grey fields below to provide or reference the following information:

Traditional Place Name:

Maps and Geographic Information System (GIS) Data: Include a map in your Application Package, identifying local geographic features, watercourses and water sources, project structures, and location(s) of any proposed waste deposits. Provide geographic coordinates (latitude and longitude) of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Include GIS data in your Application Package, if applicable. Refer to the LWB [Geospatial Data Submission Standards](#) for providing geographic information.

Minimum latitude:	121° 12' 51.9336"	Maximum latitude:	121° 13' 30.108"
Minimum longitude:	61° 44' 28.086"	Maximum longitude:	61° 44' 35.2536"

NTS Map Sheet No.: Provide the map sheet number:

GIS Data: Use an “X” to indicate if GIS data is attached.

Attached:	<input type="checkbox"/>	Not Available:	<input checked="" type="checkbox"/>
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Land Types: Use an “X” to indicate the type(s) of land on which the activities are proposed:

Free Hold/ Private:	<input type="checkbox"/>	Commissioner’s/ Territorial Lands:	<input checked="" type="checkbox"/>	Federal Land:	<input type="checkbox"/>	Municipal Land:	<input type="checkbox"/>
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4. DESCRIPTION OF PROJECT

Describe the proposed activities in the grey field provided below and contact Board staff to determine whether additional information will be required. For proposed amendments to authorized activities, specify: the nature of the amendment, the condition(s) to be amended, and the rationale for the amendment.

GNWT-INF is submitting a Type B Water Licence application to the Mackenzie Valley Land and Water Board (MVLWB) to allow for the removal of in-stream boulders, cobbles, and other sediment from the navigational path of the Liard River Ferry, located at km 457 on Highway 1 near the Village of Fort Simpson, NWT.

Due to the predicted low water levels for this summer, GNWT-INF will need to undertake work to remove in-stream granular material from the ferry’s navigational path, to prevent the ferry from running ashore during its operations. This work is vital to maintain ferry operations.

The Liard River has a high sediment load during ice-free seasons from natural erosion and sedimentation processes further upstream. The substrate on the south bank of the Liard River has a higher boulder, cobble, and gravel content, whereas the north side has more silt. The primary area of concern for ferry navigation is the south bank, where boulders and cobbles damage the ferry’s hull when it docks.

Work will include removing 4,000 cubic meters of materials from both landing sites along the shores of the Liard River, for a combined total of 8,000 cubic meters of material to be removed. GNWT-INF intends to remove the materials by using a long reach excavator from the ferry landing pads. GNWT-INF may conduct in-stream equipment operations to enable the excavator to clear more materials from the navigational path of the ferry. Materials removed from the Liard River will be stockpiled on site for reuse at the ferry landing or will be hauled to existing INF quarries (LUP MV2023E0012). Dredged materials will initially be placed by the excavator onside, and then hauled further onto the ferry landing site for further management 100m away from the Liard River.

This work will take place between August 15, 2024 and September 18, 2024. INF intends to complete this work during low water levels to enable the excavator to reach more materials while limiting the need to place the excavator in the water as much as possible. This work is anticipated to take approximately 20 days. GNWT-INF’s application for a Type B Water Licence includes a Spill Contingency Plan, an Erosion and Sediment Control Plan, and a Waste Management Plan to prevent and mitigate impacts to the receiving environment. GNWT-INF has prepared a Department of Fisheries and Oceans Canada Request for Review and will obtain a Minor Works Order from Transport Canada.

5. TYPE OF UNDERTAKING

Refer to Schedule B of the [Waters Regulations](#). Use an “X” to indicate which one type of undertaking applies:

1	Industrial		
2	Mining and milling		
3	Municipal		
4	Power		
5	Agriculture		
6	Conservation		
7	Recreation		
8	Miscellaneous	X	(describe): Dredging within Liard River to maintain ferry operations

6. WATER LICENSING CRITERIA

Refer to Schedules D to H of the [Waters Regulations](#). Use an “X” to indicate which criteria apply:

	Type B	Type A
To obtain water		

To cross a watercourse			
To modify the bed or bank of a watercourse	X		
Flood control			
To divert water			
To alter the flow of, or store, water			
To deposit waste			
Other			(describe):

7. PROPOSED QUANTITY OF WATER INVOLVED

Describe the purpose of each proposed water use, name, and type (e.g., lake, river) of the water source, the location, and the quantity of water that would be used in the grey fields below. Add more rows as needed.

Purpose of Water Use	Name and Type of Water Source	Location	Geographic Coordinates		Proposed Water Use Volume/Rate, including units
			Latitude	Longitude	
N/A					

For each water source identified in the table above, provide a comparison of total proposed water use to the available capacity. Add more rows as needed. For more information about determining winter water source capacity, refer to the LWB/GNWT [Method for Determining Winter Water Source Capacity for Small-Scale Projects](#).

Water Source	Capacity of Water Source, including units	Other Users of the Water Source	Comparison of Total Proposed Water Use to Available Capacity
N/A			

8. PROPOSED WASTE MANAGEMENT METHODS

Use the grey field below to provide or reference the following information:

Waste Management Plan: Include a Waste Management Plan in your Application Package, if applicable, or for small-scale activities, describe proposed waste management activities in the grey field provided below. A template for the Plan is available in the LWB [Guidelines for Developing a Waste Management Plan](#).

If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package. Please note this information will be required by the Board prior to commencement of activities.

Municipalities: Complete the relevant Operations and Maintenance Plans using the available [Templates](#) and include them in your Application Package. Refer to Sections 4-8 of Environment and Climate Change Canada’s [Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document](#).

EQC and AEMP: For activities that involve the deposit of waste into water, provide proposed effluent quality criteria (EQC) in accordance with the LWB [Waste and Wastewater Management Policy](#) and [Standard Process for Setting EQC](#). Refer to the LWB/GNWT [Guidelines for Effluent Mixing Zones](#) when mixing zones are being considered. Refer to the LWB/GNWT [Guidelines for Aquatic Effects Monitoring Programs](#) for more information regarding the development of AEMP programs.

Please see the attached Waste Management Plan. The primary waste generated will be dredged sediment which will be re-used on site or hauled to an existing quarry.

9. EXISTING WATER USERS AFFECTED BY THIS PROJECT

Describe pre-Application engagement efforts with any existing water users and associated possible claims for water compensation or compensation agreements. Include the names and locations of existing water users (e.g., persons or organizations) in the grey fields below. An additional table should be added for each water user.

Name:	Please see the attached Engagement Plan and Engagement record.
Community:	Please see the attached Engagement Plan and Engagement record.
Province/Territory:	Please see the attached Engagement Plan and Engagement record.
Describe Engagement Completed:	Please see the attached Engagement Plan and Engagement record.

10. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

If the proposed project, or parts of the proposed project, may be exempt from preliminary screening, describe the rationale for the exemption in the grey field below. Include the date of the most recent screening, and/or the environmental assessment or impact review number.

N/A

Unless the project could be exempt from preliminary screening, using the Impact-Mitigation Table below, or the more detailed Table in Appendix F of the [Guide](#), identify all potential impacts and possible mitigations that are relevant to the proposed project, and indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Applicants for type A water licences must use the detailed Table in the Guide; other applicants may choose either the Table below or the Table in the Guide. Possible potential impacts are listed below; however, these lists are not exhaustive and may not apply to all projects. All information provided should reflect the size, scale, and nature of the proposed project. Cumulative impacts and climate change must be considered. Attach additional pages if needed. Use landscape orientation if preferred.

<p style="text-align: center;">Potential Impacts <i>Use an "X" to indicate which apply</i></p>	X	<p style="text-align: center;">Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i></p>
ABIOTIC COMPONENTS		
Land		
<p>Soil contamination</p>	X	<p>Soil contamination may occur if equipment or machinery leaks. The attached Spill Contingency Plan includes mitigations to prevent spills and responses if a spill occurs.</p> <ul style="list-style-type: none"> • Inspection of fuel and oil lines on all equipment. • Completing on-site fuel transfer over spill pads/trays. • Completing on-site fuel transfer 100m from the ordinary high-water mark. • Drip trays will be used for stationary equipment 24/7. • Any vehicles or machinery parked for longer than 2 hours will require a drip tray. • Machinery will be maintained and regularly inspected for fuel, oil, or other fluid leaks. • Machinery working in water will be inspected prior to placement on the ferry landing pads for leaks as well as contaminants present on the machinery. • Machinery working in water will be clean and free of contaminants. • Where possible, vegetable-based biodegradable hydraulic fluids will be used by the excavator as precautionary measure in the event of a hydraulic fluid leak. • Each vehicle and excavator will carry the required emergency spill kit to prevent fuel or hydraulic fluid from entering waterbodies. • Monitoring of tank volume during fuel transfer. • Cleaning up drips and minor spills immediately. • Ensuring the quick repair of any identified deficiencies on heavy equipment or other vehicles. • Work will not initiate until MVLWB has provided approval of the Spill Contingency Plan • Part H of the Water Licence will contain conditions to guide prevention, management and reporting of spills
<p>Soil compaction</p>		

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Destabilization/erosion	X	Anticipated that the Licence will include the standard condition Erosion Control Controls will be inspected daily Erosion and Sediment Control Plan has been prepared Erosion controls will be installed and maintained to the satisfaction of the Inspector
Change in soil structure		
Inability to support vegetation		
Other		
Water		
Groundwater		
Water table alteration		
Infiltration changes		
Changes in water quality		
Temperature changes		
Other		
Permafrost		
Loss or change in extent		
Changes in seasonal fluctuations		
Change in persistence		
Other		
Surface Water		
Water flow or level changes (permanent, temporary, seasonal)		
Drainage pattern changes		
Temperature changes		
Changes in water quality	X	<p>Water quality changes may occur during in-water work. The below mitigations will be used and are detailed in the Erosion and Sediment Control Plan:</p> <ul style="list-style-type: none"> • Avoid removal of riparian vegetation. • Avoid removal of materials from the shore and banks. • Machinery must be inspected each morning prior to the start of work for fluid leaks prior to placement on the ferry landing pads. • Excavator buckets will move in a slow and controlled manner when removing sediment from the Liard River. • Machinery entering the water must move in a slow and controlled manner. • Limit the number of times machinery is driven into and out of the water as much as possible. • Machinery will endeavor to work outside of the water as much as possible.

<p align="center">Potential Impacts Use an "X" to indicate which apply</p>	<p align="center">X</p>	<p align="center">Potential Project Impacts and Proposed Mitigations Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</p>
		<ul style="list-style-type: none"> • Install sediment and erosion control measures prior to work, inspect them regularly, and repair immediately if damaged. • Turbidity will be monitored during in water work as detailed in the ESCP. • Silt fencing will be placed on the perimeter of the sediment stockpile areas. • Keep the riparian area free of waste material and debris. • Conduct site walk-around prior to identify areas that need sediment and erosion control measures. • Install sediment and erosion control measures prior to work, inspect them regularly, and repair immediately if damaged. • Work will not initiate until MVLWB has provided approval of the Spill Contingency Plan • Part H of the Water Licence will contain conditions to guide prevention, management and reporting of spills
<p>Wetland impairment</p>		
<p>Changes to aquatic habitat (see Biotic section below)</p>	<p align="center">X</p>	<p>By removing boulders/cobbles and other sediment, the aquatic habitat will be altered. Please review Erosion and Sediment Control Plan for further info. INF has submitted a Request for Review to the Department of Fisheries and Oceans Canada for this work.</p> <p>The below mitigations will be used:</p> <ul style="list-style-type: none"> • Avoid removal of riparian vegetation. • Avoid removal of materials from the shore and banks. • Machinery must be inspected each morning prior to the start of work for fluid leaks prior to placement on the ferry landing pads. • Excavator buckets will move in a slow and controlled manner when removing sediment from the Liard River. • Machinery entering the water must move in a slow and controlled manner. • Limit the number of times machinery is driven into and out of the water as much as possible. • Machinery will endeavor to work outside of the water as much as possible. • Install sediment and erosion control measures prior to work, inspect them regularly, and repair immediately if damaged. • Turbidity will be monitored during in water

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
		work as detailed in the ESCP. <ul style="list-style-type: none"> • Silt fencing will be placed on the perimeter of the sediment stockpile areas. • Keep the riparian area free of waste material and debris. • Conduct site walk-around prior to identify areas that need sediment and erosion control measures. • Install sediment and erosion control measures prior to work, inspect them regularly, and repair immediately if damaged.
Other		
Air		
Changes in air quality		
Harm to living things		
Increased greenhouse gases		
Other		
BIOTIC COMPONENTS		
Vegetation		
Direct loss of vegetation		
Loss of Species at Risk or may-be-at-risk plants		
Change in species composition		
Introduction of non-native (invasive) species		
Effects on plant health (dust, metals, toxins)		
Increased risk of fire		
Compaction of vegetation		
Other		
Terrestrial Wildlife Habitat		
Direct loss or removal of habitat, dens, or nests		
Loss or removal of keystone species and/or Species at Risk habitat		
Fragmentation of wildlife corridor		
Direct injury or mortality		
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging		
Effects on population abundance		
Change in species diversity		
Effects on wildlife health (toxins, metals, etc.)		
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Human-wildlife conflicts		

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Other		
Aquatic Habitat		
Breeding disturbances		
Change in species diversity		
Effects on health (toxins, metals, sediment, etc.)	X	<p>There is the potential for machinery to leak near water. The below mitigations will be used and are detailed in the attached Spill Contingency Plan:</p> <ul style="list-style-type: none"> • Inspection of fuel and oil lines on all equipment. • Completing on-site fuel transfer over spill pads/trays. • Completing on-site fuel transfer 100m from the ordinary high-water mark. • Drip trays will be used for stationary equipment 24/7. • Any vehicles or machinery parked for longer than 2 hours will require a drip tray. • Machinery will be maintained and regularly inspected for fuel, oil, or other fluid leaks. • Machinery working in water will be inspected prior to placement on the ferry landing pads for leaks as well as contaminants present on the machinery. • Machinery working in water will be clean and free of contaminants. • Where possible, vegetable-based biodegradable hydraulic fluids will be used by the excavator as precautionary measure in the event of a hydraulic fluid leak. • Each vehicle and excavator will carry the required emergency spill kit to prevent fuel or hydraulic fluid from entering waterbodies. • Monitoring of tank volume during fuel transfer. • Cleaning up drips and minor spills immediately. • Ensuring the quick repair of any identified deficiencies on heavy equipment or other vehicles. • Work will not initiate until MVLWB has provided approval of the Spill Contingency Plan • Part H of the Water Licence will contain conditions to guide prevention, management

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
		and reporting of spills.
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Effects on population abundance		
Change in species diversity		
Other		
CULTURAL COMPONENTS		
Wildlife Harvesting		
Loss or reduction in game species populations		
Effects on traditional land use, subsistence, and harvesting rights		
Other		
Cultural Integrity and Heritage Resources		
Change to or loss of cultural integrity		
Change to or loss of traditional lifestyle		
Change to or loss of heritage resource		
Other		
Social and Economic Well-being		
Increased human health hazard and risk		
Economic opportunities or losses (employment, training)	X	Project is required to maintain access to Fort Simpson and Wrigley. Economic impacts will occur if road access is lost.
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans		
Impairment of the recreational or traditional uses of the land or water		
Impairment of the aesthetic quality of the land or water		
Changes to the use of the area by other non-Indigenous people (e.g., trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)	X	Road access is required for residents and tourists.
Other		

Spill Contingency Plan: Include a Spill Contingency Plan in your Application Package, if applicable, or for small-scale activities, provide relevant details in the grey field provided below. An example of this Plan can be found in the INAC [Guidelines for Spill Contingency Planning](#).

Please see the attached Spill Contingency Plan.

11. NAME AND CONTACT INFORMATION – CONTRACTORS AND SUB-CONTRACTORS

Include relevant names, responsibilities, and contact information in the grey fields below. An additional table should be added for each contractor and sub-contractor.

Name:	X		
Responsibilities:			
Company Name:			
Mailing Address:			
Community:		Telephone:	
Prov/Terr:		Email:	
Postal Code:		Other:	

	Use an “X” to indicate that contractor and/or subcontractor information is not available at this time.
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12. STUDIES UNDERTAKEN TO DATE

In the grey field below list any relevant studies that support the proposed activities and include them in your Application Package.

<p>A desktop fisheries study was completed by WSP Consulting to support the Department of Fisheries and Oceans Canada Request for Review. Bathymetry work is being scheduled to support the dredging work.</p>
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13. PROPOSED PROJECT SCHEDULE AND TERM

Indicate the proposed project start and completion dates, and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Indicate the term requested.

Start Date:	August 15 2024	Completion Date:	September 18, 2024
<p>INF intends for work to begin on August 15, 2024 and end September 18, 2024. INF is requesting a 5 year term to allow for any work that was unable to be completed in the 2024 season to continue in the following year if required.</p>			
Term of Licence Requested:	5 years		

14. ADDITIONAL SUPPORTING INFORMATION

Use the grey field below to provide or reference the following information:

Engagement: Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the LWB [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#), and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to [Information for Proponents on MVLWB’s Engagement Requirements](#).

Eligibility: Contact Indigenous, federal, and territorial governments, and other parties to ensure all appropriate authorizations have been obtained or are in the process of being obtained. Obtain permission from the landowner(s), if necessary (e.g., obtain and reference licences of occupation, leases, access authorizations, etc.) and attach it/them to the Application.

Land Use Plans: Contact the applicable Land Use Planning Board or the Tłı̨chǫ Government for assistance in interpreting the requirements of the relevant Land Use Plan(s). Include a Land Use Plan Conformity Table, or if applicable, written confirmation of conformity from the Tłı̨chǫ Government, in your Application Package, demonstrating how the project meets the requirements of the Land Use Plan, if applicable.

Traditional Knowledge (TK): Provision of TK is mandatory for Applications to the Sahtu Land and Water Board. Other applicants are strongly encouraged to include TK.

Facilities: Include the supporting information required under subsection 5(2) of the [Waters Regulations](#) if the project includes the following: dam(s); storage reservoir(s); watercourse crossing(s); camp(s) or lodge(s); use of water for industrial use or mining and milling; deposit of waste; or handling or storage of petroleum products or hazardous materials.

Closure and Reclamation: Include a Closure and Reclamation Plan in your Application Package, or for small-scale activities, describe the proposed closure and reclamation activities in the grey field provided below. Describe any temporary closure(s) and seasonal shutdowns. Refer to the LWB/AANDC [Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories](#) and Environment and Climate Change Canada's [Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document](#).

Closure Cost Estimate: Prepare a Closure Cost Estimate and include it in your Application Package. Applicants are encouraged to contact Board staff, prior to applying, to determine which closure-cost- estimate template is most suited to the project activities being applied for. Guidance is provided in sections 1.3 and 2.1 of the LWB/GNWT/CIRNAC [Guidelines for Closure and Reclamation Cost Estimates for Mines](#). If your Application is submitted concurrently with a Land Use Permit Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

Financial Capacity: Provide information relating to your financial capacity, as outlined in paragraph 26(5)(d) of the [Waters Act](#). Please note this information will be required by the Board prior to issuance.

Please see the attached Engagement Record.

Project activities are occurring on INFs existing alignment for Highway 1 (LUP MV2023E0012).

The project will be closed once dredging requirements have been met. Seasonally the project will cease activities on September 18, 2024. Wastes produced will be removed as per the Waste Management Plan. At the end of the project, all equipment, supplies, and garbage will be removed from the site. Stockpiled material will either be hauled to an existing quarry or used on-site for the ferry landing pads.

15. FEES

Refer to the Guide for assistance with determining applicable fees.

Type of Fee	Amount (\$)
Application fee (if applicable):	\$30.00
Water use fee deposit:	\$
Total Fees:	\$

If fees are submitted separately, indicate how and when they will be delivered to the Board's office.

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16. SIGNATURE

Jacqueline Demers	Regional Superintendent – Dehcho
Applicant's Name (print) or Company Name	Position (print)

Signature	Date

Review the application package checklist provided in the Guide, and submit completed applications to the Regulatory Manager or Executive Director identified on the "Contact Us" pages of the respective Land and Water Board (www.mvlwb.com, www.wlwb.ca, www.slwb.com, www.glwb.com).