



Yamoga Building, Old Airport Road  
PO Box 1, Fort Good Hope NT X0E 0H0

Tel: 867-598-2413 Fax: 867-598-2325  
[www.slwb.com](http://www.slwb.com)

June 12, 2023

File: S20L8-002

Mark Cliffe-Phillips  
Mackenzie Valley Review Board  
200 Scotia Centre  
Box 938, 5102-50th Avenue  
Yellowknife NT X1A 2N7

Sent by email

Dear Mark Cliffe-Phillips,

**Re: GNWT – Department of Infrastructure – Notice of Preliminary Screening Determination – Amendment Application for Water Licence – Miscellaneous Water Use - Prohibition Creek Access Road (PCAR), NT**

The Sahtú Land and Water Board (Board) met on June 09, 2023 and considered the Amendment Application from Government of Northwest Territories – Infrastructure (GNWT - INF) for Water Licence (Licence) S20L8-002 for the **Prohibition Creek Access Road (PCAR)** (Project) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board completed a preliminary screening of the Project on October 28, 2020<sup>1</sup>. Government of Northwest Territories – Infrastructure (GNWT - INF) has proposed changes to the Project that require screening. Accordingly, the Board conducted a preliminary screening of the new activities based on the public record for the proceeding.

Based on the evidence provided, the Board is satisfied the screening has been completed according to

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<sup>1</sup> See [SLWB Online Registry www.slwb.com/](http://www.slwb.com) for [S20L8-002 Prohibition Creek Access Road](#) – Preliminary Screening and RFD – June 09, 2023.

Based on the evidence provided, the Board is satisfied the screening has been completed according to section 125 of the MVRMA and has decided **not to refer** the Project for additional assessment. The Board's Preliminary Screening Determination and Reasons for Decision, as required by section 121 of the MVRMA, is attached.

If the Board does not receive notice of referral to environmental assessment by the end of day, June 19, 2023, the Board will proceed with the issuance of Licence Amendment S20L8-002 on June 20, 2023.

Please contact Paul Dixon [via email](#) or at (867) 598-2413 with any questions or concerns regarding this letter.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Tanya MacIntosh', with a long horizontal stroke extending to the right.

Tanya MacIntosh  
Chair, Sahtú Land and Water Board

BCC'd to: Tulita Distribution List  
Patricia Coyne, GNWT-INF  
Trevor Bremner – Inspector, GNWT-ECC  
Kelly Bourassa, GNWT-INF

Attached: Preliminary Screening Determination and Reasons for Decision  
Preliminary Screening Update to October 27, 2020 PES Report Form



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## Preliminary Screening Determination and Reasons for Decision

Water Licence Applications	
File Number	S20L8-002
Company	Government of Northwest Territories – Infrastructure (GNWT - INF)
Project	Prohibition Creek Access Road (PCAR)
Location	Prohibition Creek Access Road, NT
Activity	Miscellaneous
Date of Decision	09/06/2023

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### 1.0 Decision

In accordance with subsection 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA), the Sahtú Land and Water Board (SLWB or Board) met on June 9, 2023 to make a preliminary screening determination on the amendment application from Government of Northwest Territories – Infrastructure (GNWT - INF) (Applicant) for Water Licence S20L8-002 (Licence)<sup>1</sup> for the Prohibition Creek Access Road (PCAR) (Project).

The amendment will allow GNWT-INF and its contractor to obtain water for project construction from sources closer to the project, accessible by road when sufficient flow is available.

The Board has determined that most Project activities and/or areas are exempt from preliminary screening because they were previously screened and approved. The Applicant has proposed

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<sup>1</sup> See [SLWB Online Registry](#) [Government of Northwest Territories - Infrastructure – Licence Amendment Application – 02/05/2023](#).

new Project activities within the identified Project area that were required to be screened for this amendment.

The Board has decided not to refer the proposed changes to the Project to the Mackenzie Valley Environmental Impact Review Board (the Review Board) for Environmental Assessment because, based on the evidence, it is the Board's opinion that the proposed changes to the Project will not have a significant adverse impact on the environment or be a cause of public concern.

The Board's determinations, including reasons for its decisions, are detailed in sections [3.0](#).

## **2.0 Background and Scope of Screening**

A Type A Water Licence (WL) S20L8-002 was granted by the Sahtú Land and Water Board (Sahtú Land and Water Board or the Board) in accordance with the Mackenzie Valley Resource Management Act for a period of five years commencing November 19, 2020, and expiring November 18, 2025. There have not been any previous amendments to the Licence.

The Project areas and activities that have already been subject to Part 5 are listed below. Further information about these Project areas and activities, and associated impacts and mitigations, is detailed in the Board's Preliminary Screening Determination, dated October 28, 2020<sup>2</sup>.

Locations: Prohibition Creek Access Road (PCAR) Construction Project

Project Element	Description	Latitude	Longitude
<b>Alignment</b>	<b>End of CCASAR</b>	65° 13'25.5" N	126° 30' 53.4" W
	<b>End of PCAR</b>	65° 9' 18.8" N	126° 18' 23.4" W
<b>Edie Lake Quarry</b>	<b>Northwest Corner</b>	65° 17' 7.0" N	126° 32' 17.0" W
	<b>West Corner</b>	65° 16' 58.0" N	126° 32' 29.0" W
	<b>Southwest Corner</b>	65° 16' 50.6" N	126° 32' 23.7" W
	<b>Northeast Corner</b>	65° 16' 57.0" N	126° 31' 25.0" W
	<b>Southeast Corner</b>	65° 16' 43.0" N	126° 31' 41.0" W

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<sup>2</sup> See [SLWB](#) Online Registry for S12L8-002 – [Notice of Preliminary Screening Determination](#) – October 28, 2020

### **3.1 Previously Screened or Assessed Areas and Activities:**

- a) Construction of an all-season access road between Prohibition Creek and Canyon Creek within the existing Mackenzie Valley Winter Road (MVWR) ROW. Construction activity will commence at the end of the Canyon Creek All Season Access Road (CCASAR) approximately 450 m southeast of the Canyon Creek bridge and end on the approach to the Prohibition Creek bridge (approximately 300 m northwest of Prohibition Creek);
- b) Mobilizing and demobilizing construction equipment to and from Project work site;
- c) Clearing, grubbing, and stripping vegetated material from proposed Project alignment Right of Way (ROW) and within proposed work areas at Edie Lake Quarry;
- d) Installation of equalization and drainage channel culverts at select locations within the ROW;
- e) Sourcing and use of water from the Mackenzie River to provide dust suppression, material compaction, and temporary working surfaces during frozen ground conditions;
- f) Operation of one borrow source (the Edie Lake Quarry). Work will include drilling, blasting, excavation, crushing and stockpiling of granular materials. The Edie Lake Quarry and the permanent quarry haul road were previously developed by INF during the CCASAR project. Progressive reclamation will be completed at the Quarry during operations;
- g) Construction, operation, and reclamation of temporary support infrastructure areas (laydown and equipment staging areas).
- h) Disposal of waste at approved offsite disposal facilities;
- i) Storage and transfer of fuel;
- j) Use of explosives for quarry operations.

### **3.2 New Activities for Screening**

The proposed amendment - specifically water withdrawal from five watercourses along the PCAR, was not included within the original application as underwent preliminary screening by the SLWB leading to the issuance of S20L8-002.

#### **3.2.1 Potential Impacts and Proposed Mitigations**

The following potential impacts and mitigation measures with the use of the additional five watercourses for water withdrawal included:

<b>Ecosystem Component</b>	<b>Potential Impact</b>	<b>Proposed Mitigation</b>
Erosion/Sedimentation	Vehicle use near water can lead to erosion	<ul style="list-style-type: none"> <li>• Vehicles will remain on embankment as much as possible.</li> <li>• Existing Erosion and Sedimentation Control Plan will apply.</li> </ul>
Water flow or level changes	There will be a temporary alteration of flow while the water truck is being filled (may be several hours)	<ul style="list-style-type: none"> <li>• The rate of Water withdrawal will not exceed 10% Instantaneous Flow of the creek.</li> </ul>
Breeding or Migratory Movement Pattern Disturbances	Potential for entrainment or entrapment of fish. With mitigation no impacts to spawning or migration are anticipated to occur.	<ul style="list-style-type: none"> <li>• A fish screen will be installed on the intake in accordance with DFO Interim Code of Practice: End of Pipe Fish Screen Guidelines (2020)</li> <li>• Water withdrawal will not exceed 10% Instantaneous Flow when flows are &gt;30% Mean Annual Discharge in accordance with DFO Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (2013).</li> </ul>
Effect on Traditional Land Use, Harvesting	No additional impacts anticipated	<ul style="list-style-type: none"> <li>• water truck movements will occur at the same time as other construction vehicle movements</li> </ul>
Impairment of the recreational or traditional uses of the land or water	No additional impacts anticipated	<ul style="list-style-type: none"> <li>• water take will be less than 10% of the flow when conditions allow.</li> </ul>

### **3.0 Conclusion**

The Board completed a preliminary screening of the Project on October 28, 2020. The Applicant proposed a change to the Project by including five additional water withdrawal sources.

The updated Preliminary Environmental Screening Report did not identify any Significant Adverse Environmental Impacts or Public Concerns with the proposed project. All potential environmental impacts identified by review agencies on the original project can be mitigated with known technology and have already been addressed in the Term and Conditions of the Licence. No

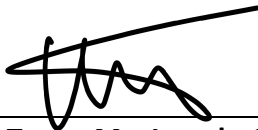
additional environmental impacts were identified by reviewers for the addition of five watercourses.

Based on the evidence, it is the Board's opinion that the proposed changes to the Project will not have a significant adverse impact on the environment or be a cause of public concern for the following reasons:

- It is the opinion of the Board that the revised scope and conditions for S20L8-002 will ensure that any potential environmental impacts resulting from the withdrawal of water from the additional five watercourses are not significant.
- When withdrawal criteria are met, the option to withdraw water from these other five watercourses will support reduced production of greenhouses gases and fuel consumption by minimizing the distance that trucks travel to collect and deliver water.

The Board has decided not to refer the proposed changes to the Project to the Mackenzie Valley Environmental Impact Review Board (the Review Board) for Environmental Assessment.

SIGNATURE



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**Tanya MacIntosh, Chair**  
**Sahtú Land and Water Board**

June 12, 2023

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**Date**

## PRELIMINARY SCREENING REPORT FORM

<p><b>PRELIMINARY SCREENER:</b> Sahtu Land and Water Board: Aswathy Mary Varghese, Regulatory Specialist</p> <p>Bonnie Bergsma, Regulatory Coordinator-Specialist (AMEND)</p> <p><b>REFERENCE / FILE NUMBER:</b> S20E-005/S20L8-002 AMEND</p> <p><b>TITLE: Prohibition Creek Access Road (PCAR) Construction Project</b></p> <p><b>APPLICANT: GNWT- Dept. of Infrastructure BOARD</b></p> <p><b>MEETING DATE: October 27, 2020 / June 9, 2023 AMEND</b></p>	<p><b>EIRB REFERENCE NUMBER:</b></p>
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**Type of Development:**    **Roads (Public Construction)**

<b>Type of Development:</b>	✓	New Development
(CHECK ALL THAT APPLY)	○	Amend, EIRB Ref. #
	○	Renew, EIRB Ref. #
	✓	Requires permit, licence or authorization
	○	Does not require permit, licence or authorization

**Project Summary:** Government of the Northwest Territories – Department of Infrastructure (GNWT-INF) submitted applications for a Type A land use permit (LUP/Permit) and a Type B Water Licence (WL/Licence) for the Prohibition Creek Access Road (PCAR) Construction Project. GNWT-INF has planned to construct a 13 km all-season access road from the southern end of the Canyon Creek All-Season Access Road (CCASAR) to the Prohibition Creek with a Right of Way (ROW) width of 60 metre (m). The road will consist of a two-lane gravel roadway with an 8.5 m wide driving surface with total footprint of approximately 16.6 m (assuming an average embankment height of 1.5 m with 3H:1V side slopes). The access road will be located within the partially cleared right-of-way (ROW), immediately northeast of the Mackenzie Valley Fibre Line (MVFL) and on the existing Mackenzie Valley Winter Road (MVWR). This project includes the operation of a quarry (Edie Lake Quarry) which was previously developed by GNWT-INF during the CCASAR project.

GNWT-INF submitted a request to amend Part D, Condition 1 of the Licence to permit water withdrawal from five watercourses intersected by the Prohibition Creek Access Road (PCAR). This amendment will allow GNWT-INF and its contractor to obtain water for project construction from sources closer to the project, accessible by road when sufficient flow is available.

The applicant also requested an amendment to Part A, Condition 1, Scope to add the additional watercourses, clarify activities to be undertaken during frozen versus unfrozen conditions, and add watercourse diversion and watercourse training to the Licence scope. These latter two activities have already been subject to this approved preliminary screening. The Board has proposed modifications to clarify the closure and reclamation plans.

**ADD:** Sourcing and use of Water from Canyon Creek, Francis Creek, Helava Creek, Christina Creek and Prohibition Creek (approved water sources) when sufficient flow is available to support road construction activities during unfrozen conditions.

Text to be removed and replaced for clarification:

**REMOVE:** Water sourced (water use estimate: < 250 m3/day) from the Mackenzie River will be used to provide dust suppression, material compaction, and temporary working surfaces during frozen ground conditions.

**REPLACE:** Water sourced and used from the Mackenzie River (< 299 m3/day) will be used to provide dust suppression and material compaction in unfrozen conditions, and temporary working surfaces during frozen ground conditions.



**ADD: Modification of the bank or bed of a watercourse by infilling**

The Land Use Permit (LUP) and Water Licence (WL) are being sought for a term of five years.

Construction of the Access Road is estimated to take eighteen to twenty-four months to complete. A final engineering design and project plan of the Access Road is expected to be completed in January 2021.

The following studies are required to be completed for making the final project plan: Thermal Assessment, Archeological Impact Assessments (AIA): in areas of high archeological potential identified in the previously completed archeology overview assessments (AOAs), Hydrology and Fish Assessments, Topographic Survey and Pre-disturbance Den and Nest Surveys. With the exception of the Pre-Disturbance Den and Nest Surveys (which will not be completed until work commences), the field work for the additional studies have been completed in the summer and/or fall 2020. INF is currently awaiting issuance of the final reports for each of the pieces of work. The field work will be completed in early November 2020, with final report issuance in early January 2021. GNWT-INF will be submitting the Permafrost and Erosion Plan (PEP) and Wildlife Management and Monitoring Plan (WMMP) for public review and SLWB approval prior to the road construction. INF has provided sufficient details in their Environment Protection Plan (EPP) to complete the preliminary screening.

Project exclusions: a) Rehabilitation and/or replacement of bridges along PCAR including Francis Creek, Helava Creek and Christina Creek will be completed under separate regulatory approvals and processes; and b) no camp is required for the project as the personnel will stay in Norman Wells, NWT.

The Project will use two temporary trailers for washroom and shelter during the project, and on-site personnel will be accommodated at Norman Wells, NWT: a) one trailer at the Edie Lake Quarry and b) second trailer at the project site.)

**Notes:**

- i) PCAR will be added to the Mackenzie Valley Highway Project which is currently under Environmental Assessment.
- ii) Any outstanding/unforeseen geotechnical work related to this project have to be dealt with under other existing or new authorizations, as applicable.

**Scope:**

- a) Construction of an all-season access road between Prohibition Creek and Canyon Creek within the existing Mackenzie Valley Winter Road (MVWR) ROW. Construction activity will commence at the end of the Canyon Creek All Season Access Road (CCASAR) approximately 450 m southeast of the Canyon Creek bridge and end on the approach to the Prohibition Creek bridge (approximately 300 m northwest of Prohibition Creek);
- b) Mobilizing and demobilizing construction equipment to and from Project work site;
- c) Clearing, grubbing, and stripping vegetated material from proposed Project alignment Right of Way (ROW) and within proposed work areas at Edie Lake Quarry;
- d) Installation of equalization and drainage channel culverts at select locations within the ROW;
- e) **Modification of the bank or bed of a watercourse by infilling;**
- f) Sourcing and use of water from the Mackenzie River to provide dust suppression and material compaction, **during unfrozen ground conditions**, and **temporary working surfaces** during frozen ground conditions;
- g) **Sourcing and use of Water from Canyon Creek, Francis Creek, Helava Creek, Christina Creek and Prohibition Creek (approved water sources) when sufficient flow is available to support road construction activities during unfrozen conditions.**
- h) Operation of one borrow source (the Edie Lake Quarry). Work will include drilling, blasting, excavation, crushing and stockpiling of granular materials. The Edie Lake Quarry and the permanent quarry haul road were previously developed by INF during the CCASAR project. Progressive reclamation will be completed at the Quarry during operations;
- i) Construction, operation, and reclamation of temporary support infrastructure areas (laydown and equipment staging areas).
- j) Disposal of waste at approved offsite disposal facilities;
- k) Storage and transfer of fuel;
- l) Use of explosives for quarry operations.

**Locations: Prohibition Creek Access Road (PCAR) Construction Project**

Project Element	Description	Latitude	Longitude
Alignment	End of CCASAR	65° 13' 25.5" N	126° 30' 53.4" W
	End of PCAR	65° 9' 18.8" N	126° 18' 23.4" W
Edie Lake Quarry	Northwest Corner	65° 17' 7.0" N	126° 32' 17.0" W
	West Corner	65° 16' 58.0" N	126° 32' 29.0" W
	Southwest Corner	65° 16' 50.6" N	126° 32' 23.7" W
	Northeast Corner	65° 16' 57.0" N	126° 31' 25.0" W
	Southeast Corner	65° 16' 43.0" N	126° 31' 41.0" W

**Principal Activities (*related to scoping*)**  
(CHECK ALL THAT APPLY)

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Construction | <input type="checkbox"/> Exploration                  | <input type="checkbox"/> Decommissioning       |
| <input type="checkbox"/> Installation (culverts) | <input type="checkbox"/> Industrial                   | <input type="checkbox"/> Abandonment           |
| <input checked="" type="checkbox"/> Maintenance  | <input type="checkbox"/> Recreation                   | <input type="checkbox"/> Aerial                |
| <input type="checkbox"/> Expansion               | <input type="checkbox"/> Municipal                    | <input type="checkbox"/> Harvesting            |
| <input checked="" type="checkbox"/> Operation    | <input checked="" type="checkbox"/> Quarry            | <input type="checkbox"/> Camp                  |
| <input type="checkbox"/> Repair                  | <input checked="" type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Scientific / Research |
| <input checked="" type="checkbox"/> Water Intake | <input type="checkbox"/> Sewage                       | <input type="checkbox"/> Solid Waste           |
| <input type="checkbox"/> Other:                  |   |  |

(DESCRIBE)

**Principal Development Components (*related to scoping*)**  
(CHECK ALL THAT APPLY)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Access Road <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> construction</li> <li><input type="checkbox"/> abandonment/removal</li> <li><input type="checkbox"/> modification e.g., widening, straightening</li> </ul> <input checked="" type="checkbox"/> Automobile, Aircraft or Vessel Movement <input checked="" type="checkbox"/> Blasting <input type="checkbox"/> Building <input type="checkbox"/> Burning <input type="checkbox"/> Burying <input checked="" type="checkbox"/> Channeling <input type="checkbox"/> Cut and Fill <input checked="" type="checkbox"/> Cutting of Trees or Removal of Vegetation <input type="checkbox"/> Dams and Impoundments <ul style="list-style-type: none"> <li><input type="checkbox"/> construction</li> <li><input type="checkbox"/> abandonment/removal</li> <li><input type="checkbox"/> modification</li> </ul> <input type="checkbox"/> Ditch Construction <input type="checkbox"/> Drainage Alteration <input type="checkbox"/> Drilling other than Geoscientific <input type="checkbox"/> Ecological Surveys | <input checked="" type="checkbox"/> Waste Management <ul style="list-style-type: none"> <li><input type="checkbox"/> disposal of hazardous waste</li> <li><input checked="" type="checkbox"/> waste generation</li> <li><input type="checkbox"/> drilling wastes and hydraulic flowback fluids</li> </ul> <input type="checkbox"/> Sewage <ul style="list-style-type: none"> <li><input type="checkbox"/> disposal of sewage</li> </ul> <input type="checkbox"/> Geoscientific Sampling <ul style="list-style-type: none"> <li><input type="checkbox"/> trenching</li> <li><input type="checkbox"/> diamond drill</li> <li><input type="checkbox"/> borehole core sampling</li> </ul> <input type="checkbox"/> Bulk soil sampling <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Hydrological Testing <input checked="" type="checkbox"/> Site Restoration <ul style="list-style-type: none"> <li><input type="checkbox"/> fertilization</li> <li><input checked="" type="checkbox"/> grubbing</li> <li><input type="checkbox"/> planting/seeding</li> <li><input checked="" type="checkbox"/> reforestation</li> <li><input type="checkbox"/> scarify</li> <li><input type="checkbox"/> spraying</li> <li><input type="checkbox"/></li> </ul> |
|---|--|

☐

☒

☐

☒

☒ Excavation

☐ Explosive Storage

☐ Fuel Storage, drilling fluid, and hydraulic fracture fluid storage

☒ Topsoil, Overburden or Soil

☒ fill

☐ disposal

☒ removal

☐ storage

recontouring

☒ Slashing and removal of vegetation

☐ Soil Testing

☐ **Stream Crossing**/Bridging

☐ Tunneling/Underground

☒ Water Intake

☐ Other

### NTS Topographic Map Sheet Numbers

(LIST ALL THAT APPLY)

### NTS Map Sheet #: 096E

Latitude/Longitude and UTM System: Maximum Latitude: 65° 13' 25.5" N Minimum Latitude: 65° 9' 18.8" N

Maximum Longitude: 126° 30' 53.4" W Minimum Longitude: 126° 18' 23.4" W

(DEGREES, MINUTES, SECONDS, MAP SHEET)

### Nearest Community and Water Body:

The Town of Norman Wells, NWT; Mackenzie River

### Land Status (*consultation information*)

(CHECK ALL THAT APPLY)

☒ Free Hold / Private

☒ Commissioner's Land

☐ Federal Crown Land

☐ Municipal Land

### Transboundary Implications

(CHECK ALL THAT APPLY - IF KNOWN & APPLICABLE)

☐ British Columbia

☐ Alberta

☐ Saskatchewan

☐ Yukon

☐ Nunavut

☐ Wood Buffalo National Park

☐ Inuvialuit Settlement Region

☒ N/A

### Type of Transboundary Implication:

☐ Impact / Effect

☐ Development

☐ Public Concern

\_\_\_\_\_  
(DESCRIBE)

☒ N/A

## POTENTIAL IMPACTS AND MITIGATION FOR FIVE ADDITIONAL WATERCOURSES

### Authorized Potential Water Sources and Maximum Water Use Volumes

Water Source Name and Type	Geographic Coordinates (Center)		Purpose of Water Use	Estimated Volume Available for Use (m <sup>3</sup> )	Maximum Water Use Volume/Rate (units)
	Latitude	Longitude			
Mackenzie River	65° 9' 18.8" N	126° 18' 23.4" W	Road construction	unlimited	299 m <sup>3</sup> /day
Canyon Creek	65° 13' 35.04" N	126° 31' 22.78" W	Road construction		<10% IF when >30% MAD

Francis Creek	65° 12' 17.33" N	126° 27' 25.56" W	Road construction		<10% IF when >30% MAD
Helava Creek	65° 11' 32.39" N	126° 25' 7.74" W	Road construction		<10% IF when >30% MAD
Christina Creek	65° 11' 11.29" N	126° 24' 6.16" W	Road construction		<10% IF when >30% MAD
Prohibition Creek	65° 9' 12.19" N	126° 18' 3.37" W	Road construction		<10% IF when >30% MAD

For sources other than the Mackenzie River, no more than 10% of the instantaneous flow (IF) may be taken when flows are greater than 30% of the mean annual discharge (MAD), unless otherwise approved by Fisheries and Oceans Canada.

The following potential impacts and mitigation measures with the use of the additional five watercourses for water withdrawal include:

Ecosystem Component	Potential Impact	Proposed Mitigation
Erosion/Sedimentation	Vehicle use near water can lead to erosion	<ul style="list-style-type: none"> <li>Vehicles will remain on embankment as much as possible.</li> <li>Existing Erosion and Sedimentation Control Plan will apply.</li> </ul>
Water flow or level changes	There will be a temporary alteration of flow while the water truck is being filled (may be several hours)	<ul style="list-style-type: none"> <li>The rate of Water withdrawal will not exceed 10% Instantaneous Flow of the creek.</li> </ul>
Breeding or Migratory Movement Pattern Disturbances	Potential for entrainment or entrapment of fish. With mitigation no impacts to spawning or migration are anticipated to occur.	<ul style="list-style-type: none"> <li>A fish screen will be installed on the intake in accordance with DFO Interim Code of Practice: End of Pipe Fish Screen Guidelines (2020)</li> <li>Water withdrawal will not exceed 10% Instantaneous Flow when flows are &gt;30% Mean Annual Discharge in accordance with DFO Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (2013).</li> </ul>
Effect on Traditional Land Use, Harvesting	No additional impacts anticipated	<ul style="list-style-type: none"> <li>water truck movements will occur at the same time as other construction vehicle movements</li> </ul>
Impairment of the recreational or traditional uses of the land or water	No additional impacts anticipated	<ul style="list-style-type: none"> <li>water take will be less than 10% of the flow when conditions allow.</li> </ul>

For the Work required at Cristina Creek the Board has developed the following new non-standard condition:

The Licensee shall develop a **Channel Reconstruction Plan and Design** for Cristina Creek, and submit to the Board and DFO for approval, at least 60 days prior to commencement of channel realignment. The plan should include, but not be limited to the following: a) The new channel will be designed to have similar flows and fish habitat eg. pools and riffles, as the existing portion of the channel, and b) natural materials such as woody debris and suitable native vegetation be used to improve bank stability.

## **REASONS FOR DECISION FOR THE AMENDMENT**

Based on the evidence, it is the Board's opinion that the proposed changes to the Project will not have a significant adverse impact on the environment or be a cause of public concern for the following reasons:

- It is the opinion of the Board that the revised scope and conditions for S20L8-002 will ensure that any potential environmental impacts resulting from the withdrawal of water from the additional five watercourses are not significant.
- When withdrawal criteria are met, the option to withdraw water from these other five watercourses will support reduced production of greenhouse gases and fuel consumption by minimizing the distance that trucks travel to collect and deliver water.

The Board has decided not to refer the proposed changes to the Project to the Mackenzie Valley Environmental Impact Review Board (the Review Board) for Environmental Assessment.