

**MACKENZIE RIVER BASIN  
BILATERAL WATER MANAGEMENT AGREEMENT**

**Between the**

**Government of British Columbia**

**And the**

**Government of the Northwest Territories**

**2015-10-07**

**FINAL**

**Pursuant to the Mackenzie River Basin Transboundary Waters Master Agreement of 1997 this Bilateral Water Management Agreement, when signed, will be attached to the Master Agreement as Schedule C**

# **MACKENZIE RIVER BASIN BILATERAL WATER MANAGEMENT AGREEMENT**

**BETWEEN:**

**THE GOVERNMENT OF BRITISH COLUMBIA**, as represented by the Minister of Environment

**AND**

**THE GOVERNMENT OF THE NORTHWEST TERRITORIES**, as represented by the Minister of Environment and Natural Resources

Hereinafter referred to collectively as "the Parties".

**THE PARTIES AGREE AS FOLLOWS:**

## **1. Purpose and Context**

### **1.1 Purpose**

The purpose of this Bilateral Water Management Agreement ("Agreement") is to establish and implement a framework for cooperating to achieve the principles of the Mackenzie River Basin Transboundary Waters Master Agreement of 1997 ("Master Agreement").

### **1.2 Affirmation of Commitment to the Master Agreement**

- a) The Parties agree that the provisions of this Agreement will be interpreted and applied in a manner that is in accordance with the purpose and principles of the Master Agreement.
- b) Under the Master Agreement, the Parties are committed to:
  - i. Managing the Water Resources in a manner consistent with the maintenance of the Ecological Integrity of the Aquatic Ecosystem;
  - ii. Managing the use of the Water Resources in a sustainable manner for present and future generations;
  - iii. The right of each to use or manage the use of the Water Resources within its jurisdiction provided such use does not unreasonably harm the Ecological Integrity of the Aquatic Ecosystem in any other jurisdiction;
  - iv. Providing for early and effective consultation, notification and sharing of information on developments and activities that might affect the Ecological Integrity of the Aquatic Ecosystem in another jurisdiction;
  - v. Resolving issues in a cooperative and harmonious manner.
- c) Achievement of the commitments of this Agreement does not absolve a Party of its commitments made in the Master Agreement.

### **1.3 General Commitment to Cooperate**

- a) The Parties agree to cooperate in good faith and to take reasonable actions towards commitments to achieve the principles of the Master Agreement.
- b) The Parties will work together and in a manner that is proactive, timely, transparent, and respectful of each Party's applicable laws, regulations and policies.

### **1.4 Limitations**

- a) This Agreement is prospective in nature from the date of signing and is not intended to address effects attributable to past actions that may have occurred prior to the date of this Agreement.
- b) The commitments of the Parties under this Agreement are limited by the costs and cost sharing provisions in section 13.2.

## 1.5 Application

This Agreement applies to all Transboundary Waters shared between British Columbia and the Northwest Territories in the Mackenzie River Basin.

## 2. Definitions

### 2.1 Master Agreement Definitions

**"Aquatic Ecosystem"** means the interacting components of air, land, water and living organisms, including humans, that relate to the Water Resources of the Mackenzie River Basin.

**"Basin"** means the Mackenzie River Basin as outlined in Schedule "A" of the Master Agreement.

**"Bilateral Water Management Agreements"** means those agreements between the provinces and the territories, which, when signed by the Parties, will be attached to the Master Agreement, and as may be amended from time to time.

**"Board"** means the Mackenzie River Basin Board established under Part D, Section 1, of the Master Agreement.

**"Ecological Integrity"** means the conditions that the Parties to any of the Bilateral Water Management Agreements determine are necessary to maintain a healthy and diverse Aquatic Ecosystem.

### 2.2 Additional Definitions

**"Available Water"** means the volume of surface water that is available for human use after other needs for the Ecological Integrity of the Aquatic Ecosystem are considered.

**"Bilateral Water Management"** means actions that the two Parties jointly undertake pursuant to this Agreement in accordance with the Risk Informed Management approach.

**"Bilateral Water Management Agreement"**, or "Agreement" means this agreement between British Columbia and the Northwest Territories and its appendices, that will be attached to the Master Agreement as Schedule C and as may be amended from time to time.

**"Bilateral Management Committee"** means a committee as described under section 13.1 of this Agreement.

**"Consumptive Use"** means that portion of water withdrawn from the Basin that is lost or otherwise not returned to the Basin, excluding any volume of water stored in hydroelectric projects.

**"Developments and Activities"** means all phases of a project, initiative or activity from pre-feasibility through to final closure, and all changes to or new laws, regulations, policies, plans, and programs that might affect the Ecological Integrity of the Aquatic Ecosystem of the other Party.

**"Emergency"** means a sudden, urgent occurrence or occasion beyond the effective control of a Party, requiring immediate action.

**"Groundwater"** means water that collects, flows or freezes beneath the Earth's surface.

**"Indicator"** means a qualitative or quantitative assessment of water and associated ecosystem elements (such as invertebrates, plants, fish, birds, wildlife, humans, air) using ecological and social science, and/or traditional and local knowledge, which are indicative of the state of the Ecological Integrity of the Aquatic Ecosystem.

**"Jurisdictional Water Management"** means actions undertaken unilaterally according to a Party's own internal laws, regulations, policies, plans and programs.

**"Learning Plan"** means a plan, to learn about Transboundary Waters, to proactively address any negative trends, and to prepare for, in accordance with the Risk Informed Management approach, the setting and assessing of the achievement of Transboundary Objectives.

**“Risk Informed Management”** means an approach that guides the identification and implementation of Jurisdictional and Bilateral Water Management actions and that is informed by an understanding of the risks to and uses of Transboundary Waters.

**“Transboundary Biological Objective”** means the specific biological conditions that the responsible Party or Parties will meet in accordance with the Risk Informed Management approach.

**“Transboundary Groundwater”** means all Water Resources that collect, flow or freeze beneath the Earth’s surface and are shared by the Parties to this Agreement and within the Mackenzie River Basin.

**“Transboundary Groundwater Objective”** means the specific Groundwater conditions that the responsible Party or Parties will meet in accordance with the Risk Informed Management approach.

**“Transboundary Objective”** means conditions established under the Risk Informed Management approach that the responsible Party or Parties will meet, and which may include but are not limited to water quality, water quantity, Groundwater, or biological objectives.

**“Transboundary Water Quality Objective”** means the site-specific water quality conditions that the responsible Party or Parties will meet in accordance with the Risk Informed Management approach.

**“Transboundary Water Quantity Objective”** means the site-specific water quantity conditions that the responsible Party or Parties will meet in accordance with the Risk Informed Management approach.

**“Transboundary Waters”** refers to all Water Resources, including surface and Groundwater, that are shared by the Parties to this Agreement and within the Mackenzie River Basin.

**“Triggers”** means specific conditions defined by the Parties that will require a Jurisdictional and/or Bilateral Water Management response.

**“Water Resources”** means the Mackenzie River and any order tributary to the Mackenzie River including deltas, tributaries of deltas, wetlands and lakes which contribute water to the Mackenzie River, whether in a liquid or frozen state, and any Groundwater in the drainage basin of the Mackenzie River.

### **3. Jurisdictional Water Management**

- a) Each Party is responsible for decision making related to Developments and Activities in its jurisdiction, subject to specific limitations in this Agreement.
- b) Each Party will undertake its Jurisdictional Water Management in a manner that accords with the purpose and principles of the Master Agreement.

### **4. Risk Informed Management**

#### **4.1 General Commitment**

The Parties agree to implement a Risk Informed Management (“RIM”) approach for Transboundary Waters in accordance with Appendix A.

#### **4.2 Objectives and Principles**

- a) The objectives of the RIM approach are:
  - i. To support the achievement of the principles of the Master Agreement;
  - ii. To facilitate joint learning, and proactive and adaptive actions;
  - iii. To inform the allocation of human and financial resources in an efficient and effective manner.
- b) Key principles include:
  - i. The nature and intensity of Bilateral Water Management is commensurate with the nature and intensity of the risks to and uses of Transboundary Waters;
  - ii. Bilateral Water Management is based on a mutual understanding of the Ecological Integrity of the Aquatic Ecosystem;

- iii. Bilateral Water Management builds on the Jurisdictional Water Management actions of each Party as required to achieve the commitments of this Agreement.

### 4.3 Risk Informed Management Commitments

In accordance with the RIM approach, the Parties will:

- a) Classify Transboundary Waters as set out in Appendix B based on agreed quantitative and qualitative factors;
- b) Share information, notify and consult each other in the manner defined in section 5;
- c) Establish and implement Learning Plans and monitoring to understand conditions and needs related to the Ecological Integrity of the Aquatic Ecosystem;
- d) Identify Indicators of the Ecological Integrity of the Aquatic Ecosystem as required to inform the setting and monitoring of Transboundary Objectives;
- e) Establish, implement and assess the achievement of Transboundary Objectives;
- f) Periodically assess the adequacy of the Transboundary Objectives, and adjust them as required;
- g) Consider available information relevant to the setting and assessment of Transboundary Objectives, including ecological and social science, and traditional and local knowledge as outlined in Appendix C;
- h) Establish and implement a structured and transparent process for monitoring Transboundary Objectives;
- i) Take other necessary actions to achieve the commitments of the Agreement.

If a Transboundary Objective is not met:

- j) The responsible Party or Parties will undertake Jurisdictional Water Management action in support of meeting the Transboundary Objective;
- k) Either Party may at any time request that the Bilateral Management Committee, established under section 13.1, consider alternative ways to address the situation, including but not limited to mitigation, enhancement, revision of the Transboundary Objective or other conciliative measures;
- l) The Parties will establish an agreed timeframe to implement the agreed action in sections 4.3 j) or k);
- m) If a Party fails to meet a Transboundary Objective within a timeframe agreed under section 4.3 l) then the Parties will determine reasonable and appropriate action, including but not limited to mitigation, enhancement, revision of the Transboundary Objective or other conciliative measures;
- n) If a Party's failure to meet a Transboundary Objective is the result of a *force majeure* event beyond that Party's reasonable control then sections 4.3 j) through m) do not apply, unless the Parties agree otherwise.

The details of how these commitments will be implemented are outlined in attached appendices.

## 5. Information Sharing, Notification and Consultation

### 5.1 Information Sharing

- a) The Parties shall, as early as practicable and on a regular basis, exchange sufficient available information that will support the informed and effective Bilateral Water Management of the Transboundary Waters, including:
  - i. Information about the Ecological Integrity of the Aquatic Ecosystem, including but not limited to hydrological, meteorological, hydrogeological, and ecological science, traditional knowledge, and input from the public in either jurisdiction;
  - ii. Information about current and future Developments and Activities that might affect the Ecological Integrity of the Aquatic Ecosystem of the other Party.
- b) Each Party shall employ reasonable efforts to provide information requested by the other Party in a manner that facilitates its use by the other Party, relying on existing information sharing processes where appropriate.
- c) In cases where information is commercially proprietary or legally restricted, the Party holding the information is not obliged to release it and will make reasonable efforts in accordance with section 5.1 b) to address the underlying information need.

### 5.2 Notification

- a) The Parties agree to provide, as early as practicable, prior notification of Developments and Activities that might affect the Ecological Integrity of the Aquatic Ecosystem of the other Party.

- b) At the time of notification, and ongoing through the Bilateral Management Committee, the Parties will share any updated or specific information relevant to the effects of Developments and Activities on the Ecological Integrity of the Aquatic Ecosystem of the other Party as it becomes available.
- c) The Parties will notify other Basin provinces and territories not party to this Agreement about Developments or Activities that might affect the Ecological Integrity of the other's Aquatic Ecosystem.
- d) In the event that the implementation of Developments and Activities are of the utmost urgency in order to protect public health or public safety, implementation may proceed without delay and with notification. Sufficient data and information will be shared and consultation will commence as appropriate and as soon as practicable.

### 5.3 Consultation

- a) The Parties will consult each other about, and consider and reasonably address in their decision-making, concerns related to Developments and Activities that might affect the Ecological Integrity of the Aquatic Ecosystem of the other Party.
- b) The Parties commit that this consultation will be an ongoing and collaborative process at the Bilateral Management Committee, initiated by either Party.
- c) The Parties agree that if and when Developments and Activities trigger a legislated public environmental review process, formal consultation will occur through that process.

## 6. Surface Water Quantity

### 6.1 General Quantity Commitments

- a) The Parties will establish and implement RIM classifications, Learning Plans, Transboundary Water Quantity Objectives and monitoring in accordance with the RIM approach and Appendices D, H, and I.
- b) Transboundary Water Quantity Objectives will be based on a seasonal, or as otherwise agreed, assessment of the needs for the Ecological Integrity of the Aquatic Ecosystem and a commitment to share surface water equitably, as described in sections 6.1 c) and d).
- c) The upstream Party will pass an amount of water equal to the sum of needs for the Ecological Integrity of the Aquatic Ecosystem plus 50% or more of the Available Water to the downstream Party, calculated at the border for each transboundary surface water body, unless otherwise agreed to by the Parties.
- d) The Parties agree that the water that may be withdrawn or diverted under water allocations and applications for water allocations existing before the date of this Agreement are considered part of each Party's equitable share in section 6.1 c).
- e) The timeframe for calculating the amount of water to be passed will be agreed by the Parties and may be instantaneous, daily, weekly, monthly, seasonally, or annually.
- f) The responsible Party or Parties will meet the Transboundary Water Quantity Objective as calculated or measured at the border or designated monitoring station.
- g) The Parties will track and annually report Consumptive Use or its surrogate on Transboundary Waters and the achievement of Transboundary Water Quantity Objectives.

### 6.2 Interbasin Transfers

- a) The Parties agree that transfers of water into or out of the Basin will be prohibited, except in accordance with a Party's laws and regulations regarding interbasin transfers.

## 7. Surface Water Quality

- a) The Parties will establish and implement RIM classifications, Learning Plans, Transboundary Water Quality Objectives and monitoring in accordance with the RIM approach and Appendices E, H, and I.
- b) Transboundary Water Quality Objectives, for substances other than those addressed in section 7 d), will:
  - i. Be based on an assessment of the needs for the Ecological Integrity of the Aquatic Ecosystem;
  - ii. Be sufficiently precautionary in order to provide an early warning signal that prompts action appropriate for site-specific conditions;
  - iii. Consider natural variability, typical conditions, and unacceptable change;
  - iv. Be intended to protect all uses, including traditional uses;
  - v. Be designed to address seasonal, site-specific needs of the Aquatic Ecosystem.
- c) The Parties will avoid water quality degradation that may result from their addition of toxic, bioaccumulative, or persistent substances, as listed in Appendix E.

- d) The Parties are committed to pollution prevention and sustainable development to meet the objective of the virtual elimination for substances that are human-made, toxic, bioaccumulative and persistent (in the manner described in Appendix E).
- e) The responsible Party or Parties will meet Transboundary Water Quality Objectives as measured at the designated transboundary monitoring station(s).
- f) The Parties will track and annually report on monitoring results for Transboundary Water Quality Objectives.
- g) The Parties will amend the substance lists in Appendix E as knowledge improves and new information becomes available.

## **8. Groundwater**

- a) The Parties will establish and implement RIM classifications, Learning Plans, Transboundary Groundwater Objectives and monitoring in accordance with the RIM approach and Appendices F, H, and I.
- b) The Parties will manage Transboundary Groundwater, including the water quantity, water quality, physical structure and transboundary surface water ecosystems supported by Transboundary Groundwater, in a manner that is protective and that maintains the Ecological Integrity of the Aquatic Ecosystem.
- c) The Parties will use and share Transboundary Groundwater reasonably and equitably, as determined on a case-by-case basis in consideration of, but not limited to, the following factors:
  - i. Geographic, hydrographic, hydrologic, hydrogeologic, climatic, ecological, and other natural features;
  - ii. The social and economic needs of the Parties including human health;
  - iii. The population dependent on the use;
  - iv. The effects of use by one Party on the other Party;
  - v. Existing and potential licensed and unlicensed uses, including traditional uses;
  - vi. Conservation, protection, Developments and Activities, and economy of use and the costs of measures taken to achieve these purposes;
  - vii. The availability of alternatives, of comparable value, to the particular planned or existing use;
  - viii. The sustainability of proposed or existing uses;
  - ix. The maintenance of the Ecological Integrity of the Aquatic Ecosystem.

## **9. Biological Component**

### **9.1 General Biological Commitments**

- a) The Parties will establish and implement RIM classifications, Learning Plans, Transboundary Biological Objectives and monitoring in accordance with the RIM approach and Appendices G, H, and I.
- b) The Parties will establish and monitor biological Indicators of the Ecological Integrity of the Aquatic Ecosystem, in accordance with the RIM approach and Appendices G and H.
- c) Biological Indicators of the Ecological Integrity of the Aquatic Ecosystem will be used as required to inform the setting and monitoring of Transboundary Objectives, and the revision of Transboundary Objectives over time.
- d) The Parties will establish Triggers and associated management actions in accordance with the RIM approach and Appendix G.

### **9.2 Invasive Species**

The Parties will make Jurisdictional Water Management decisions in a manner that is intended to prevent the movement of invasive species into, within, or out of the Basin.

## **10. Monitoring**

### **10.1 Monitoring Under the RIM Approach**

The Parties agree to establish and implement monitoring as needed to satisfy the commitments as defined in Appendix I of this Agreement, including but not limited to the following:

- a) The Parties will establish and implement monitoring programs and stations as required to facilitate Learning Plans and to demonstrate the meeting of Transboundary Objectives;
- b) The Parties will rely on existing monitoring stations and programs where appropriate to achieve monitoring commitments;

- c) Each Party will notify the other Party of any proposed changes to monitoring programs and stations that affect section 10.1 a) and b) above and seek ways to address any losses in information quality that could affect the ability to maintain the Ecological Integrity of the Aquatic Ecosystem;
- d) The Parties will review data from Aquatic Ecosystem monitoring and studies in the Basin areas of each jurisdiction as required, and ensure this information is considered in Bilateral Water Management where relevant.

## **10.2 Regional and Basin-Level Monitoring**

- a) The Parties recognize the importance of long-term data to support the commitments under this Agreement and to provide an early warning of potential changes.
- b) The Parties will identify, through scientific and traditional knowledge assessment and Learning Plans, priority long-term monitoring stations and data that can be used to support implementation of this Agreement and as part of a regional and/or Basin-level monitoring network.
- c) The Parties commit to long-term monitoring as defined and periodically reviewed by the Bilateral Management Committee, and to the priority long-term monitoring stations listed in Appendix I.
- d) The Parties recognize that long-term monitoring stations are funded through multiple agencies and will work to secure funding for priority long-term monitoring stations.

## **11. Research and Studies**

The Parties, through the Bilateral Management Committee, will:

- a) Proactively identify research needs in support of Bilateral Water Management, including but not limited to research on climate change and other external anthropogenic influences that could affect Bilateral Water Management;
- b) Explore opportunities to conduct research jointly, and/or in collaboration with others, including First Nation and Aboriginal organizations, on a case-by-case basis and identify Basin-level research priorities for consideration by the Board;
- c) Consider the results of relevant research and studies in Bilateral Water Management.

## **12. Emergency Response**

- a) Each Party will ensure that emergency response protocols are in place to address, mitigate, and where possible prevent, adverse effects of Emergencies on the Ecological Integrity of the Aquatic Ecosystem of the other Party.
- b) The protocols will ensure that the Party within whose jurisdiction the Emergency originates will, without delay, notify the other Party.

## **13. Administration**

### **13.1 Bilateral Management Committee**

#### **13.1.1 Purpose, Membership and Decision Making**

- a) The Parties will establish a Bilateral Management Committee (BMC) that will be responsible for administering this Agreement and reporting on its achievement.
- b) The primary functions of the BMC are to:
  - i. Classify Transboundary Waters;
  - ii. Establish Learning Plans;
  - iii. Set, monitor and assess the achievement of Transboundary Objectives commensurate with the assigned class;
  - iv. Provide a mechanism for information sharing, notification and consultation as per sections 5 and 12.
- c) The BMC will consist of relevant expertise from each Party, including at least one senior water manager, and may include, subject to section 13.1.1 d), First Nation or other Aboriginal organization representation.
- d) BMC members will be appointed by the Deputy Minister or equivalent level in each Party.
- e) The BMC will make decisions by consensus and decision-making will be based on each Party having one vote. In the event of a dispute or question, either Party may seek resolution outlined in section 14 of this Agreement.

#### **13.1.2 Duties**

- a) The BMC will develop and implement its internal working procedures including chairing, meeting records and financial tracking as needed.



- b) The BMC will meet at least once annually and may invite other participants, including individuals from First Nations, Aboriginal organizations, senior officials, advisors, and technical staff to the meeting as required to inform the decisions of the BMC.
- c) Each Party will ensure a mechanism is in place to solicit and bring forward, in advance of the annual meeting, any input and interests from their public and First Nations and/or Aboriginal organizations.
- d) The BMC may establish committees to ensure the efficient and effective application of the RIM approach and to undertake other duties as required.
- e) The BMC will document outcomes of bilateral consultations, track the achievement of the commitments in this Agreement, and prepare an annual report to be submitted to the responsible Ministers and made publically available, that may identify issues and recommendations as required.
- f) The BMC will develop and approve a 3-5 year work plan that includes a review process as required to continually improve the Bilateral Water Management of Transboundary Waters.
- g) Each year, the BMC will approve an annual budget subject to the provisions in section 13.2.
- h) The BMC will undertake other activities as required to fulfill the commitments under this Agreement.

### **13.2 Costs and Cost Sharing**

The Parties agree that the costs to administer and implement this Agreement, as described in Appendix J, are subject to each Party's appropriation and allocation of resources, and the 3-5 year work plan approved under section 13.1.2 f) of this Agreement.

## **14. Resolving Disputes and Questions**

### **14.1 Resolving Disputes and Questions at the Bilateral Management Committee**

In the event of a dispute or question, the BMC may, where appropriate, undertake one or more of the following actions:

- a) Resolve the dispute by consensus;
- a) Conduct studies and investigations, using scientific and/or traditional knowledge;
- b) Discuss the dispute or question with the Mackenzie River Basin Board and its committees;
- c) Prepare a report on the facts and circumstances of the dispute or question;
- d) Establish and instruct a panel, consisting of at least one person designated by each Party, to prepare a report, and/or to recommend terms of settlement of the dispute or question;
- e) Undertake any other activities as required.

### **14.2 Referral of Disputes to Ministers**

Disputes or questions that cannot be resolved in accordance with section 14.1 may be referred to the responsible Ministers.

## **15. Process Provisions**

### **15.1 Effective Date**

This Agreement takes effect when signed by the Parties, and approved by their Governments in accordance with applicable approval mechanisms in each jurisdiction.

### **15.2 Continuation in the Event of Master Agreement Termination**

In the event of termination of the Master Agreement under Part J of the Master Agreement, this Agreement may continue with the consent of both Parties.

### **15.3 Amendment Provisions**

- a) This Agreement may be reviewed and amended by the consent of both Parties.
- b) Appendices of this Agreement may be amended by the Bilateral Management Committee.

**15.4 Termination**

- a) This Agreement may be terminated by either Party upon one year’s written notice to the other Party, where upon expiry of the notice period, this Agreement shall terminate.
- b) If termination notice, once given in section 15.4 a), is subsequently withdrawn prior to the completion of the one year’s written notice, then subject to the agreement of both Parties, this Agreement shall continue to be in force from the date of the signing of the most recent version.

**15.5 Aboriginal and Treaty Rights**

Nothing in this Agreement shall be interpreted in a manner inconsistent with the exercise of any existing aboriginal and treaty rights as recognized and affirmed in Section 35 of the Constitution Act, 1982, which include rights now existing by way of land claims agreements or which may be acquired either under land claims agreements or otherwise.

**15.6 Public Engagement or Consultation**

Each Party is responsible for engaging or consulting with their public, including aboriginal peoples, regarding matters pertaining to this Agreement and may bring relevant input for consideration in Bilateral Water Management.

**15.7 Conflict of Interest**

This Agreement shall not operate to vest in any Party any proprietary right or interest that it otherwise would not have.

**15.8 Complete Agreement**

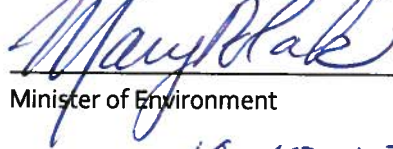
This Agreement including its appendices and the Master Agreement constitutes the entire Agreement between the Parties with respect to the subject matter of this Agreement.

IN WITNESS WHEREOF this Agreement has been executed on behalf of the Parties by the Ministers on the latest date indicated below.



Witness

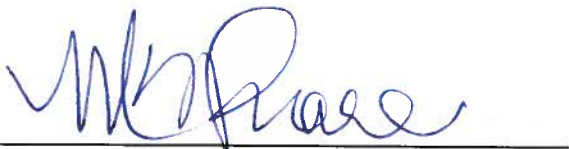
THE GOVERNMENT OF BRITISH COLUMBIA



Minister of Environment

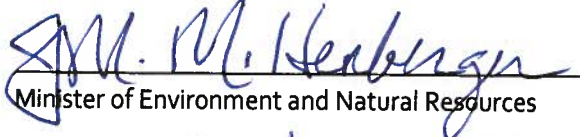
10.15.15

Date



Witness

THE GOVERNMENT OF THE NORTHWEST TERRITORIES



Minister of Environment and Natural Resources

15/10/15

Date

## **APPENDICES**

Appendix A: Risk Informed Management

Appendix B: List of Transboundary Waters

Appendix C: Use of Traditional and Local Knowledge

Appendix D: Surface Water Quantity

Appendix E: Surface Water Quality

Appendix F: Groundwater

Appendix G: Biological

Appendix H: Learning Plans

Appendix I: Monitoring

Appendix J: Costs to Administer and Implement the Agreement

