



Bilateral Water Management Agreements Guidance Document

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1. INTRODUCTION

This Bilateral Agreements Guidance Document provides the context within which bilateral water management agreements will be prepared and presents the process that may be used by the jurisdictions to prepare the bilateral agreements.

1.1. Background

The Peace and Athabasca rivers originate in the eastern Rocky Mountains of Alberta and British Columbia and flow northeast to the Peace-Athabasca Delta. Flow from Saskatchewan, through Lake Athabasca, also enters the Delta. Immediately downstream of the Peace-Athabasca Delta, the main outlet channel of the Delta, Rivière des Rochers, converges with the Peace River to form the Slave River which flows north into the Northwest Territories and into Great Slave Lake. The Hay River also flows into Great Slave Lake and also has its source in Alberta and British Columbia. Flowing north out of Great Slave Lake, the Mackenzie River is joined by the Liard, which has its source in Yukon, British Columbia and Alberta. The Peel River joins the Mackenzie River just before its final destination - the Arctic Ocean near Inuvik. At this point, the Mackenzie River has drained about 20 per cent of Canada's land mass, from within five jurisdictions: Alberta, British Columbia, Saskatchewan, Yukon, and the Northwest Territories. The mean annual flow volume of the Mackenzie River is approximately 310 billion cubic metres of water, a volume comparable to that of the St. Lawrence River and Mississippi River.

On July 24, 1997, the Governments of Canada, Northwest Territories, Yukon, British Columbia, Alberta and Saskatchewan completed signing of the *Mackenzie River Basin Transboundary Waters Master Agreement*. The Master Agreement established "common principles for the cooperative management of the aquatic ecosystem of the Mackenzie River Basin". The Master Agreement also established the Mackenzie River Basin Board (MRBB), to facilitate these principles and, among other things, to encourage parties to develop bilateral water management agreements to be attached as schedules to the Master Agreement as follows:

Schedule:	Bilateral Agreement between:
B	British Columbia - Alberta
C	British Columbia - Northwest Territories
D	British Columbia - Yukon
E	Alberta - Northwest Territories
F	Alberta - Saskatchewan
G	Saskatchewan - Northwest Territories
H	Northwest Territories - Yukon

The Master Agreement commits the parties to the following principles in carrying out their responsibilities in the Mackenzie River Basin:

1. Managing the water resources in a manner consistent with the maintenance of the ecological integrity of the aquatic ecosystem.
2. Managing the use of the water resources in a sustainable manner for present and future generations.
3. 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.
4. 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.
5. Resolving issues in a cooperative and harmonious manner.

To guide implementation of the Master Agreement, the MRBB prepared a Strategic Plan that describes concisely the watershed management challenges faced by the MRBB. In developing the bilateral agreements, parties should take into consideration the identified goals for the Mackenzie River Basin as described in the Strategic Plan.

1.2. Purpose of the Guidance Document

Some Ministers from the jurisdictions signatory to the Master Agreement met with the MRBB on July 3rd, 2008 in Edmonton, Alberta. At that time, the Ministers directed the Board to prepare the necessary background work and plan of action so that jurisdictions can commence negotiations of the remaining bilateral agreements in June 2009. The Ministers further directed the Board to prepare an overview of options of the potential process for monitoring and reporting on the achievement of the bilateral water management agreements. These options are presented in Annex 1.

This guidance document is intended to assist the parties when negotiating bilateral or multilateral agreements by setting out common expectations and building on principles established in the Master Agreement. This will facilitate cooperative watershed management and assist the Board in fulfilling its responsibilities to ensure consistency and coherence among agreements.

2. OVERVIEW OF BILATERAL AGREEMENT PROCESS

This section sets out the purpose of the bilateral agreements.

2.1. Purpose of the Bilateral Agreements

The Master Agreement provides broad guidance for the individual bilateral agreements. The parties to this agreement recognize that cooperative watershed management is preferred to interjurisdictional disputes.

The objectives of the bilateral agreements are:

- to effect cooperative watershed management among the jurisdictions which share the water resources of the Mackenzie River Basin
- to sustain the ecological integrity of the aquatic ecosystems of the Mackenzie River Basin, and
- to facilitate equitable and sustainable use of shared water resources by establishing criteria and desired outcomes that address water consumption, flows, quality, ground water management and aquatic ecosystem health commitments.

The bilateral agreements will commit jurisdictions to work cooperatively to achieve these objectives identified in the terms set out in the agreement.

2.2. Jurisdictional Roles

The Master Agreement states that the provincial and territorial jurisdictions are responsible for the development of the bilateral agreements. The nature of these and other roles are elaborated in the following sections.

2.2.1. Provincial and Territorial Governments

As outlined in the Master Agreement, the provincial and territorial¹ governments have the primary responsibility for development of the bilateral agreements. As well, these governments will have primary responsibility for adhering to and fulfilling the terms of the agreements once these are executed.

2.2.2. Mackenzie River Basin Board

The MRBB has the responsibility to ensure consistency and coherence among the agreements and to ensure that collectively the agreements will result in fulfillment of the terms and principles of the Master Agreement. This guidance document is a primary means for the Board to fulfill its responsibilities to ensure consistency and coherence among the agreements.

The Board also has responsibility to track the development of the agreements and, if in its opinion believes that progress is unduly delayed, the Board may bring this observation to the attention of all jurisdictions and hold a discussion to resolve the delay. If progress continues to be delayed, the Board may bring this matter to the attention of the Ministers.

¹ When referring to the Northwest Territories this includes both the government of the Northwest Territories and the Department of Indian and Northern Affairs Canada

2.2.3. Aboriginal Participation

Each MRBB jurisdiction will engage its Aboriginal organizations in the development of the bilateral agreements in a manner consistent with its legal obligations. The MRBB recognises the importance of Aboriginal participation and traditional knowledge in transboundary water management.

2.2.4. Federal Role

Bilateral agreements are defined in the Master Agreement as those agreements between the provinces and the [Northwest] Territories (including the Department of Indian Affairs and Northern Development, where the territories are parties to the [Bilateral] Agreement). The federal government will become involved in the negotiation of bilateral agreements under two circumstances:

- If the bilateral agreement specifically implicates the federal government to some action or specifically relates to federal jurisdiction; and/or
- If a provincial or territorial party to a bilateral agreement requests the input of the federal government.

Each jurisdiction will establish its own connection to the federal government. This input may come from individual departments or through the “federal family” connecting all federal departments through a contact system.

3. GENERIC ANNOTATED OUTLINE FOR AGREEMENTS

The following represents a more detailed description of the issues which should be covered in bilateral agreements. Its purpose is to provide the parties with a clear understanding of the scope of the bilateral negotiations without being prescriptive as to the specific content of any individual bilateral agreement. The intended purpose is to ensure that the cooperative management of the shared water resources of the Mackenzie River Basin is accomplished as efficiently and as fairly as practical for the benefit of all member jurisdictions.

3.1. Whereas Statements

Each bilateral agreement will include whereas statements. The whereas statements will set out the background leading up to the agreement. These statements will include reference to the Master Agreement. Reference will also include any jurisdictional water strategy that may be relevant to the interpretation and application of the bilateral agreement.

3.2. Key Principles

Each bilateral agreement will include a section setting out the key principles that will guide the application of the agreement. The principles on which each bilateral agreement is based shall be consistent with those of the Master Agreement and may

consider the following conceptual principles, such as ecosystem based approaches, social and economic development issues, risk management issues, science leadership, cooperative and adaptive management.

Water management in one jurisdiction has the potential to affect the benefits and costs realized by other jurisdictions sharing a common water resource. The bilateral agreements will meet the needs of jurisdictions while ensuring that the aquatic ecosystem health of transboundary waters is protected for future generations. This is done through a process of identifying thresholds for key measurable attributes at agreed upon locations, or following agreed upon processes and procedures for generating information on the attribute (such as, but not limited to, surface water quantity, water consumption, flow, surface water quality, groundwater quantity and quality, and aquatic ecosystem health). The bilateral agreements will describe the attributes, how they are measured, and how data and information is to be measured, managed, interpreted and reported. The data or information is then interpreted to confirm that the water is being used in a sustainable manner which maintains the ecological integrity of the Mackenzie River Basin. If not, then a fair, flexible and adaptive management process is triggered to respond to issues noted.

The bilateral agreements will also describe the adaptive management process to be implemented when thresholds are triggered. Agreements may also describe the process to be followed when a party provides information suggesting that the attribute or threshold should be revised, or perhaps a new attribute be added.

The following sections describe the attributes that should be considered for a bilateral agreement.

3.3. Surface Water Quantity

Each bilateral agreement will include specific consideration of surface water quantity.

3.3.1. Water Consumption

This section will identify the share of water each jurisdiction has entitlement to, how this quantity will be defined over space and time and how it will be measured and reported.

For the purposes of entitlement, water consumption is defined as the volume, rate and timing (instantaneous to yearly) of water that is taken from a source and is not returned to the source water body. This includes the use of water for domestic, municipal, irrigation, industrial and mining purposes but excludes the storage or use of water for the generation of hydroelectric power where waters are returned to the source stream unreduced, subject to Section 3.3.2.

3.3.2. Flow

This section will deal with issues related to managing flows with consideration given to timing and seasonality issues related to regulated and non-regulated rivers/streams. This section may identify the flow regime each jurisdiction will manage to.

Flow regime is defined as the characteristic flow pattern of a stream course over the course of a year with respect to the magnitude, timing, variability, rate of change, and frequency of flows.

3.4. Surface Water Quality

Each bilateral agreement will include specific consideration of surface water quality. This section of the agreement may identify water quality objectives that protect the aquatic ecosystem and human health that each jurisdiction will manage to.

3.5. Groundwater Quantity

Each bilateral agreement will include specific consideration of groundwater quantity. This section of the agreement may identify ground water quantity objectives that protect the aquatic ecosystem and human health that each jurisdiction will manage to.

3.6. Groundwater Quality

Each bilateral agreement will include specific consideration of groundwater quality. This section of the agreement may identify ground water quality objectives that protect the aquatic ecosystem and human health that each jurisdiction will manage to.

Contamination of groundwater is difficult to reverse, therefore this section of the agreement should identify processes for protection of the groundwater quality and mitigation practices in the event of groundwater contamination.

3.7. Aquatic Ecosystem Health

Each bilateral agreement will include specific consideration of aquatic ecosystem health. This section of the agreement may identify specific aquatic ecosystem objectives that protect the aquatic ecosystem and human health that each jurisdiction will manage to.

3.8. Specific Inter-jurisdictional Issues

Individual jurisdictions may identify unique water issues (e.g., ice jams, ice bridges, flooding, flow levels for ferry crossings, exceptional ecosystem features, and specific types of water pollution risk). The parties will determine the extent to which these unique water issues will be addressed in a bilateral agreement.

3.9. Process Components

Each bilateral agreement will include a section addressing process matters, which will cover the following:

1. Dispute resolution
2. Emergency notification
3. Prior notification
4. Periodic review of the bilateral agreement
5. Amendment provisions
6. Financials and cost sharing for administration of the agreement
7. Legal items
8. Termination clause

3.10. Monitoring and Reporting Requirements

Each bilateral agreement will include a section addressing monitoring and reporting requirements.

4. ORGANISATION OF BILATERAL AGREEMENTS

This section sets out the process for coordinating the development of the bilateral agreements and the timing for their production.

4.1. Coordination

The Ministers agreed that the seven bilateral agreements need to be linked and coordinated to fulfill the principles and objectives of the Master Agreement. However, the Ministers also recognize that having all jurisdictions participating at one table at one time to produce the six remaining agreements simultaneously would be inefficient and would result in further delays. This guidance document sets out the process whereby the bilateral agreements will be produced efficiently and in a timely manner while ensuring that the agreements are adequately linked and coordinated.

The Mackenzie River Basin has been divided into four major watersheds that will be the focus of bilateral agreement negotiations. The four major watersheds are:

- Peace, Athabasca, Slave Watershed - BC, Alberta, Saskatchewan & NWT
- Hay, Great Slave Lake Watershed - Alberta & NWT (with a little in BC)
- Liard Watershed - BC, Yukon & NWT (with a little in Alberta)
- Peel Watershed - Yukon & NWT (completed, part of Yukon - NWT Bilateral).

Dividing the Mackenzie River Basin into these major watersheds for purposes of negotiating the bilateral agreements makes the process manageable. This process will involve direct negotiations between two parties augmented as necessary with additional multi-lateral discussions to ensure linkage of all bilateral agreements associated with a particular watershed.

Within each major watershed, a series of bilateral agreements will be produced. Following is a list of the bilateral agreement components required for each watershed. Each of these watershed related bilateral agreement components will be combined to form the schedules identified in the Master Agreement. Each schedule will be finalized once all the individual components have been completed.

1. Peace, Athabasca, Slave Watershed - BC, Alberta, Saskatchewan & NWT

Schedule B	British Columbia - Alberta
Schedule E	Alberta - Northwest Territories
Schedule F	Alberta - Saskatchewan
Schedule G	Saskatchewan - Northwest Territories (small)

2. Hay, Great Slave Lake Watershed - BC, Alberta & NWT

Schedule B	British Columbia - Alberta (small)
Schedule C	British Columbia - Northwest Territories (very small)
Schedule E	Alberta - Northwest Territories
Schedule F	Alberta - Saskatchewan (very small)
Schedule G	Saskatchewan - Northwest Territories (small)

3. Liard Watershed - BC, Alberta, Yukon & NWT

Schedule B	British Columbia - Alberta (small)
Schedule C	British Columbia - Northwest Territories
Schedule D	British Columbia - Yukon
Schedule E	Alberta - Northwest Territories (very small)

4. **Peel Watershed** - Yukon & NWT

Schedule H Northwest Territories - Yukon²

4.2. **Delivery Schedule**

Following is the schedule for the production of the bilateral agreements for each of the four major watersheds.

1. Peace, Athabasca, Slave Watershed, 2009 - 2012
2. Hay, Great Slave Lake Watershed, 2012 - 2013
3. Liard Watershed, 2013 - 2014
4. Peel Watershed, Complete (may need to be amended)

² This Bilateral Agreement has been completed.

Annex 1: Options for Monitoring and Reporting on the Achievement of Bilateral Water Management Agreements

As with the development of the bilateral water management agreements, it is the jurisdictions that are responsible for meeting their obligations under the agreements. Each jurisdiction will want to know that both they and the other jurisdiction are complying with the terms of each bilateral agreement. Under the Master Agreement, the Mackenzie River Basin Board has a duty to monitor the progress of implementing the bilateral agreements. The purpose of this annex is to describe options for monitoring and reporting on the achievement of the obligations agreed to under the bilateral agreements. The options differ in the distribution of responsibilities to monitor, audit and evaluate the requirements of bilateral agreements between the jurisdictions and the Board, with the Board maintaining the responsibility to report on results. An option that includes an independent third party is also presented.

Option 1: Jurisdictions Conduct Monitoring and Evaluation of the Bilateral Agreement

Under this option, the jurisdictions responsible for each bilateral agreement agree to undertake the monitoring that is required. The agreements may stipulate the required monitoring and the process for implementing the monitoring. The jurisdictions may set up committee structures that they deem necessary.

The jurisdictions will undertake the evaluation of the monitoring and compare these evaluations against the obligations in the agreements. It must be noted that it is the downstream jurisdiction that will want to be sure the designed monitoring and evaluation system is meeting their needs.

The Board would have the role of auditing the results of the monitoring and evaluation and reporting on these results to the Ministers and in the State of the Aquatic Ecosystem Report that the Board is obligated to produce every five years. Reports that are publically available could be accessed through the Board's website or by contacting the Board Secretariat.

The federal government will be involved because many of the monitoring stations operate under national agreements between provinces and the federal government.

Each MRBB jurisdiction will engage its Aboriginal organizations in the development of the bilateral agreements in a manner consistent with its legal obligations. The MRBB recognises the importance of Aboriginal participation and traditional knowledge in transboundary water management. Local observations should also be used in the evaluation of the achievement of obligations under the bilateral agreements.

Option 2: Jurisdictions Conduct Monitoring and the Mackenzie River Basin Board Conducts the Evaluation of the Bilateral

Under this option the jurisdictions responsible for each bilateral agreement agree to the monitoring that is required. The agreements may stipulate the required monitoring and the process for implementing the monitoring. The jurisdictions may set up committee structures that they deem necessary.

The jurisdictions will conduct the monitoring and provide this monitoring information to the Board. The Board will undertake the evaluation of the data and compare these evaluations against the obligations in the agreements. The Board will report the results to the jurisdictions, to the Ministers and in the State of the Aquatic Ecosystem Report that the Board is obligated to produce every five years.

The federal government will be involved because many of the monitoring stations operate under national agreements between provinces and the federal government.

Each MRBB jurisdiction will engage its Aboriginal organizations in the development of the bilateral agreements in a manner consistent with its legal obligations. The MRBB recognises the importance of Aboriginal participation and traditional knowledge in transboundary water management. Local observations should also be used in the evaluation of the achievement of obligations under the bilateral agreements.

Option 3: Mackenzie River Basin Board Conducts Monitoring and Evaluation of the Bilateral

Under this option the jurisdictions responsible for each Bilateral Water Management Agreement agree to the monitoring that is required. The Board is responsible for conducting the monitoring.

The Board will also undertake the evaluation of the data and compare these evaluations against the obligations in the agreements. The Board will report the results to the jurisdictions, to the Ministers and in the State of the Aquatic Ecosystem Report that the Board is obligated to produce every five years.

The federal government will be involved because many of the monitoring stations operate under national agreements between provinces and the federal government.

Each MRBB jurisdiction will engage its Aboriginal organizations in the development of the bilateral agreements in a manner consistent with its legal obligations. The MRBB recognises the importance of Aboriginal participation and traditional knowledge in

transboundary water management. Local observations should also be used in the evaluation of the achievement of obligations under the bilateral agreements.

The example of the Prairie Provinces Water Board is provided below to illustrate this option.

The Master Agreement on Apportionment (i.e. the Prairie Provinces water apportionment agreement) stipulates clear targets for water consumption, flow rates and water quality objectives that must be achieved at each border crossing. The Apportionment Agreement specifies that the Prairie Provinces Water Board will carry out the required monitoring and will report annually to Ministers on the achievement of the commitments under the agreement. The Apportionment Agreement also specifies that the federal government will undertake all required monitoring as specified by the Board.

In practice, the monitoring and reporting process happens as follows:

- The Prairie Provinces Water Board, through its committees, identifies the monitoring required.
- The federal government, Environment Canada, undertakes the monitoring. Data from provincial stations and joint stations is also used.
- Prairie Provinces Water Board staff compile all the data from the monitoring stations and evaluate that data.
- These evaluations are shared with jurisdictions, through the committees, and everyone agrees on final interpretations.
- The PPWB has a permanent committee, the Committee on Hydrology, which reviews any water apportionment problems and advises the PPWB on possible solutions.
- For water quality, the PPWB makes quarterly comparisons of interprovincial water quality monitoring results with the objectives. When the objectives are exceeded, the Committee on Water Quality (an operating committee of the Board) prepares a report to the PPWB with an explanation and a recommended course of action. The PPWB then makes recommendation to its member agencies on how to resolve any problems.
- The PPWB prepares quarterly and annual reports on achievement of obligations and sends these reports to the member agencies and Ministers.
- The public and media can contact the Board to obtain this information.

Unlike the Master Agreement on Apportionment for the Prairie Provinces, where the federal government has the responsibility to conduct all water quality and water quantity monitoring, the *Mackenzie River Basin Transboundary Waters Master Agreement* does not state which party is responsible for monitoring and reporting of the achievement of the bilateral agreements.

Option 4: Independent Third Party

As part of Ministerial discussions, an option with third party involvement in the process was suggested. There are several possibilities for the role of an independent party in the process, such as:

- conducting the monitoring,
- evaluating or auditing the monitoring which may be conducted by the provinces, territories, federal government, or the Board,
- providing an oversight function to the whole process.

The involvement of an independent party could enhance the credibility of the process but may create a duplication of existing efforts.

The Board would be responsible for reporting the results to the Ministers and in the State of the Aquatic Ecosystem Report that the Board is obligated to produce every five years.

Summary of Monitoring and Reporting Options

The difference between these options is the degree of involvement of the Board and its staff in monitoring and evaluation, and the role of an independent third party. The Board and jurisdictions need to further consider these options. As the bilateral agreements near completion, a decision on the exact process needs to be made. The type of obligations in the bilateral agreements will directly influence the amount of monitoring and evaluation required, and will have implications for long-term resources requirements of the Board.