



Annual Report **2016-17**

MACKENZIE RIVER

B A S I N B O A R D



**"A healthy and diverse
aquatic ecosystem
for the benefit of
present and future
generations."**

Letter of Transmittal



December 1, 2017

The Honourable Catherine McKenna
Minister of Environment and Climate Change
Government of Canada
Ottawa, Ontario

The Honourable Carolyn Bennett
Minister of Indigenous and Northern Affairs Canada
Government of Canada
Ottawa, Ontario

The Honourable Shannon Phillips
Minister of Environment and Parks
Government of the Province of Alberta
Edmonton, Alberta

The Honourable Pauline Frost
Minister of Environment
Government of the Yukon
Whitehorse, Yukon

The Honourable George Heyman
Minister of Environment and Climate Change
Government of the Province of British Columbia
Victoria, British Columbia

The Honourable Robert C. McLeod
Minister of Environment and Natural Resources
Government of the Northwest Territories
Yellowknife, Northwest Territories

The Honourable Dustin Duncan
Minister Responsible for the Water Security Agency
Government of the Province of Saskatchewan
Regina, Saskatchewan

Honourable Ministers:

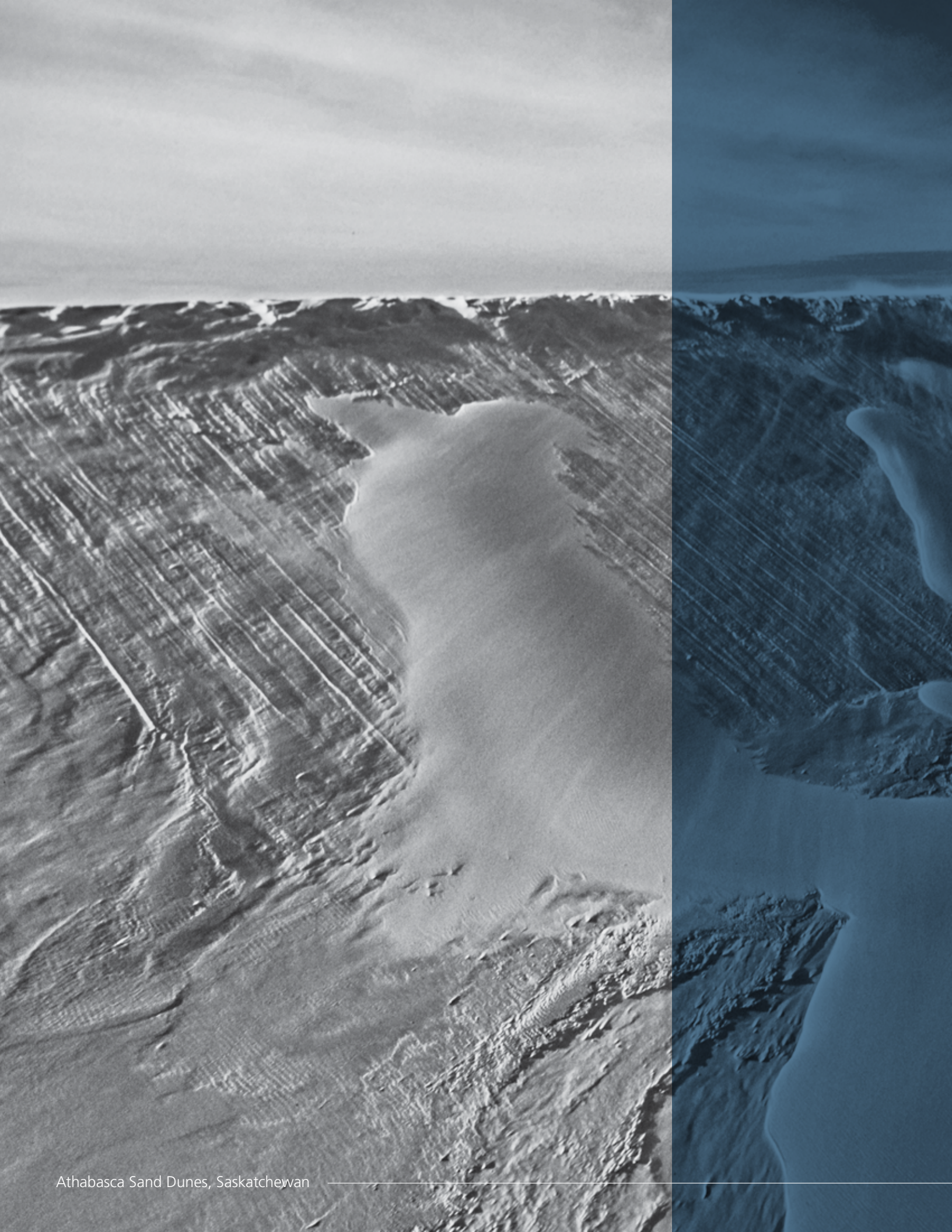
On behalf of the members of the Mackenzie River Basin Board, it is my pleasure to submit the Annual Report of the Mackenzie River Basin Board for Fiscal Year 2016-2017.

Sincerely,

A handwritten signature in black ink, appearing to be 'CB', followed by a long horizontal flourish.

Cheryl Baraniecki

Chair, Environment and Climate Change Canada Member
Mackenzie River Basin Board



Athabasca Sand Dunes, Saskatchewan

Message from the Chair and the Executive Director

This Report to Ministers describes the activities of the Mackenzie River Basin Board (MRBB) in Fiscal Year 2016-2017.

The Governments of British Columbia and Yukon completed a Bilateral Water Management Agreement on March 30, 2017. This is the third bilateral water management agreement to be completed since 2015. On behalf of the MRBB, I congratulate British Columbia and Yukon on the completion of this milestone achievement. The MRBB continues to support Alberta, British Columbia, the Northwest Territories, Saskatchewan, and Yukon as they negotiate the remaining bilateral water management agreements. The MRBB looks forward to the completion and implementation of these bilateral water management agreements.

The MRBB brought together its State of the Aquatic Ecosystem Steering Committee and its Traditional Knowledge and Strengthening Partnerships Steering Committee to guide the development of the next State of the Aquatic Ecosystem Report that will communicate from the traditional knowledge and western science perspectives on an equal footing, and in a way that is relevant to all basin residents and decision makers. The MRBB is excited about this approach, and anticipates that the outcomes will influence all aspects of how the Board does its work.

As part of the partnership with the University of Alberta led Tracking Change Project, the MRBB Indigenous Members participated in the Tracking Change Global Knowledge Symposium in Ubon Ratchathani, Thailand in February 2017. The Symposium provided an opportunity for MRBB Indigenous Members to meet and share experiences with Indigenous residents of the Mekong and the Amazon River Basins.

Looking forward to 2017-2018, the MRBB anticipates that progress will be made on the negotiation of other bilateral water management agreements. The MRBB will continue work on the next MRBB State of the Aquatic Ecosystem Report.

The success of the MRBB depends on the work of MRBB Committees and the MRBB Secretariat. Committee members consist of Board Members, Alternates, or their delegates. Their work helps to ensure that the MRBB and the signatory jurisdictions meet their obligations under the 1997 *Mackenzie River Basin Transboundary Waters Master Agreement*. The Board appreciates their professional conduct and dedication to the MRBB.



Cheryl Baraniecki
Chair,
Mackenzie River Basin Board



Don Pittman
Executive Director,
Mackenzie River Basin Board

“Whereas the **waters**
of the **Mackenzie River**
Basin are a **precious**
resource...”

Introduction

This report summarizes the activities of the Mackenzie River Basin Board (MRBB), its Secretariat and committees for the Fiscal Year April 1, 2016 to March 31, 2017.

The following figure shows the Mackenzie River Basin.



Figure 1. The Mackenzie River Basin



The Mackenzie River Basin Transboundary Waters Master Agreement

Background

The governments of Canada, British Columbia, Alberta, Saskatchewan, the Northwest Territories and Yukon (the Parties) signed the *Mackenzie River Basin Transboundary Waters Master Agreement* (the Master Agreement) to address the fundamental issue of water management cooperation. The Master Agreement came into effect on July 24, 1997. The purpose of the Master Agreement is to establish common principles for the cooperative management of the Aquatic Ecosystem of the Mackenzie River Basin (Figure 1), to establish an administrative mechanism to facilitate the application of the principles set forth in the Master Agreement, and to make provisions for bilateral water management agreements that address inter-jurisdictional water quality, quantity and related issues.

The Master Agreement Principles

Under the Master Agreement, Part C, the Parties are committed to:

- Managing the Water Resources in a manner consistent with the maintenance of the Ecological Integrity of the Aquatic Ecosystem;
- Managing the use of the Water Resources in a sustainable manner for present and future generations;
- The right of each to use or manage the use of Water Resources within its jurisdiction provided such use does not unreasonably harm the Ecological Integrity of the Aquatic Ecosystem in any other jurisdiction;
- 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; and
- Resolving issues in a cooperative and harmonious manner.

The Mackenzie River Basin Board

Structure and Operations

The Mackenzie River Basin Board (MRBB) was established under Part D Section 1a of the Master Agreement. The MRBB was assigned to administer the terms of the Agreement and to serve as a forum where all governments can cooperate in an effort to maintain the ecological integrity of the Basin's aquatic ecosystem.

The MRBB has no more than thirteen members. Two members represent each province and territory (Alberta, British Columbia, Saskatchewan, Yukon, and the Northwest Territories). One of the two provincial and territorial members has been appointed in each respective jurisdiction to provide an Indigenous perspective in the work of the MRBB. Up to three members represent the Government of Canada and two federal members are selected from signatory departments (Indigenous and Northern Affairs Canada and Environment and Climate Change Canada). Health Canada provides advice and expertise on areas relevant to its departmental mandate.

The Board is unique because of this interjurisdictional partnership, the presence of members representing Indigenous interests alongside representatives of the governments, and the commitment by all parties to maintain the ecological integrity of the aquatic ecosystem.

The Master Agreement also established a staff arm for the MRBB called the Secretariat, under Part D Section 2d. The Secretariat is tasked to carry out the programs, basic administrative duties and investigations required by the Board. Currently, the MRBB Secretariat consists of one staff member, based in Yellowknife, Northwest Territories and housed within Environment and Climate Change Canada.

The MRBB is not a regulatory or licensing board, and has no legal or policy basis to regulate resource use in any of the jurisdictions. However, the Board may inform regulatory decisions made in the various jurisdictions by providing factual material, such as the State of the Aquatic Ecosystem Report (SOAER), to inform

development decision makers, or by participating in and influencing pre- or post-regulatory processes, such as planning, regional or cumulative environmental impact assessment processes.

The MRBB conducts business, shares information, and provides guidance to Board Committees and the Secretariat through a series of formal Board Meetings. Government Board Members typically submit Member agency reports during face to face meetings. These reports provide a mechanism for sharing water-related information amongst the jurisdictions and with Indigenous Groups, and can support prior notification commitments. Indigenous Members also share information about indigenous concerns within each jurisdiction.

MRBB Meetings also typically include updates from the Board Committees and the Secretariat. The Board also conducts annual Business Planning. Board Meetings provide a forum to share information on specific issues or projects.

The Environment and Climate Change Canada Board Member has chaired MRBB Meetings by consensus of the other Board Members since the Board's inception. The MRBB Secretariat is responsible for recording and distributing meeting minutes.

Finances

Under the Master Agreement, Environment and Climate Change Canada is responsible for managing the expenditures of the Board, the costs of which are shared equally by the parties. MRBB costs include staffing and operation of the Secretariat office, to provide working-level support for the Board, and ensuring effective Indigenous participation by paying MRBB-related expenses.

The MRBB met face to face twice during the period of April 1, 2016 to March 31, 2017; once in Saskatoon, Saskatchewan and once in Edmonton, Alberta. The MRBB conducted its remaining business through teleconferences and electronic means.

Status of Bilateral Water Management Agreements

The Master Agreement makes provisions for the provinces and territories to complete bilateral water management agreements (BWMAs). The completion and implementation of the BWMAs is one of the most effective ways to protect the aquatic ecosystem of the Mackenzie River Basin.

The BWMAs will quantify commitments at key transboundary crossing points. The water management areas being addressed include Surface Water Quality, Surface Water Quantity, Groundwater, and Aquatic Ecosystem Health. The BWMAs will commit the jurisdictions to be proactive and forward looking, and to facilitate joint learning that will inform bilateral water management in the Mackenzie River Basin.

Many of the core elements of the BWMAs will be common to all the agreements. However, each agreement will include provisions that are unique to the circumstances of each transboundary region.

The BWMAs will guide how the jurisdictions will work together to manage risks to water quality, quantity, and aquatic ecosystem health.

Status

British Columbia/Northwest Territories:

British Columbia and the Northwest Territories completed their BWMA in October 2015.

- British Columbia and the Northwest Territories will now focus on implementing the terms of the BWMA. The Parties will establish a Bilateral Management Committee to administer the agreement, and will also establish technical committees to support implementation of the agreement.
- The British Columbia/Northwest Territories BWMA applies to all transboundary waters shared between British Columbia and the Northwest Territories in the Mackenzie River Basin, primarily the Liard River Watershed.

Alberta/Northwest Territories: Alberta and the Northwest Territories completed their BWMA in March 2015.

- Alberta and the Northwest Territories are implementing the terms of the BWMA. The Parties have established a Bilateral Management Committee to administer the agreement, as well as technical committees to support the agreement.

- The Alberta/Northwest Territories BWMA applies to all transboundary waters shared by the Northwest Territories and Alberta in the Mackenzie River Basin.

Northwest Territories/Yukon: The Northwest Territories and Yukon completed a BWMA in 2002.

- Planning related to the management of transboundary water resources continued through the implementation of the Northwest Territories Water Stewardship Strategy and the Yukon Water Strategy.
- Discussions are ongoing with respect to updating the current agreement to bring the BWMA in line with the other BWMA currently being negotiated and implemented.

The Northwest Territories/Yukon BWMA applies to the Peel River Watershed.

British Columbia/Yukon:

- The Governments of British Columbia and Yukon completed a Bilateral Water Management Agreement on March 30, 2017.
- The British Columbia/Yukon BWMA will apply to all transboundary waters shared between British Columbia and Yukon in the Mackenzie River Basin, primarily the Liard River Watershed.

British Columbia/Alberta: The British Columbia/Alberta BWMA negotiations are ongoing.

- Alberta and British Columbia have shared information, discussed their respective interests, and discussed the components for each section of the BWMA. The parties continue to work on the agreement appendices.
- The British Columbia/Alberta BWMA applies to all transboundary waters shared between British Columbia and Alberta in the Mackenzie River Basin, with the main focus of negotiations on the Peace River Watershed.

Alberta/Saskatchewan: The Alberta/Saskatchewan BWMA negotiations are ongoing.

- Alberta and Saskatchewan have shared information, discussed their respective interests, and discussed the components for each section of the BWMA.
- The Alberta/Saskatchewan BWMA will apply to all transboundary waters shared by Saskatchewan and Alberta in the Mackenzie River Basin.

Saskatchewan/Northwest Territories: The Saskatchewan /Northwest Territories BWMA negotiations are ongoing.

- Saskatchewan and the Northwest Territories have shared information, discussed their respective interests, and discussed the components for each section of the BWMA.

Both parties are consulting in accordance with their specific obligations throughout the development of the BWMA.

- The Saskatchewan/Northwest Territories BWMA will apply to all transboundary waters shared by Saskatchewan and the Northwest Territories in the Mackenzie River Basin.

Looking forward

- The provinces and territories will continue to negotiate their respective BWMA's in Fiscal Year 2017-2018. The MRBB anticipates that some BWMA's will be completed in this next year.
- Alberta and the Northwest Territories, British Columbia and the Northwest Territories, and British Columbia and Yukon will work towards implementing their BWMA's. The MRBB will look for linkages between its work and the work being undertaken for the BWMA's.
- The MRBB is re-establishing the MRBB Technical Committee. The Technical Committee will work on science and monitoring issues that cut across individual bilateral water management agreements. The Technical Committee will also engage the Government of Canada, which is not a signatory to the individual BWMA's.

MRBB Committees

The MRBB has created a number of working committees to help administer MRBB duties set out under the Master Agreement. The committees are comprised of members of the Board or their appointed delegates. Each committee is tasked with specific responsibilities.

Committee members are selected to promote and lead these activities, and support specialists from jurisdictions and federal agencies are tasked to assist with the work of the committees. The activity level of individual committees varies over time according to need.

Table 1: Mackenzie River Basin Board Committees and Mandates.

Committees	Responsibilities
State of the Aquatic Ecosystem Report (SOAER) Steering Committee	- Manage information - Determine options for the format of SOAER - Establish process for report preparation and subsequent updates - Determine recommendations for content of report - Prepare and review SOAER reports
Traditional Knowledge and Strengthening Partnerships (TKSP) Steering Committee	- Provide traditional knowledge oversight - Incorporate traditional knowledge into MRBB operations and products such as the SOAER
Communications Committee	- Develop a communication strategy - Prepare the annual Report to Ministers - Develop MRBB website content - Prepare presentation materials and literature for the general public

MRBB State of the Aquatic Ecosystem Report Steering Committee

The MRBB continued to work on the next State of the Aquatic Ecosystem Report (SOAER). The MRBB will develop an interactive web-based reporting platform. The SOAER Steering Committee consists of MRBB Indigenous Members and staff assigned by members of the MRBB.

In 2016, the Terms of Reference for the SOAER Steering Committee was finalized and approved by the MRBB.

The SOAER and Traditional Knowledge and Strengthening Partnership (TKSP) Steering Committees agreed to work closely together and form an “unofficial” joint steering committee to ensure that traditional knowledge and western science will be side by side through the development, analysis and reporting of the next SOAER. The SOAER will consist of a ‘braided’ approach to assess the Basin health and to ensure that traditional knowledge and western science are co-presented.

In addition, the MRBB approved the next State of the Aquatic Ecosystem Report to be a web based visual platform as the basis for SOAER. A web based report will allow for the linking of the web based indicators directly to data sources that are already online. The web based report will also include a summary/synthesis report that can be printed and/or downloaded on demand. A contract will need to be pursued to develop the web based report.

The MRBB requested that the SOAER and TKSP Steering Committees (Joint Steering Committee) develop a Project Charter to help manage the development of the web based SOAER. A draft Project Charter was presented and approved at the Board’s meeting in December 2016.

The Joint Steering Committee formed a number of joint working groups to help with the development of the web-based report. The idea of the working groups is to have steering committee members from each the SOAER and TKSP work on specific tasks and report back to the larger joint steering committee. This will allow for a more efficient process to move the SOAER to completion.

Looking forward

A Joint Workshop was scheduled to be held in Yellowknife, Northwest Territories in May 2017 to identify approaches presenting traditional knowledge and western science side by side. The main objective of the workshop was to identify guiding principles on how to co-produce an integrated understanding of aquatic ecosystem health, and how to present the listed indicators using traditional knowledge and western science.

The SOAER and TKSP Steering Committees will work to develop a Statement of Work for the contractors that will complete the web based SOAER which will include textual descriptions, maps, graphs, images, videos and sound bites for a set of selected indicators, where possible.

MRBB Traditional Knowledge and Strengthening Partnerships Steering Committee

The MRBB Traditional Knowledge and Strengthening Partnerships (TKSP) Steering Committee consists of the MRBB Indigenous Members and staff assigned by members of the MRBB.

The TKSP Steering Committee continued to participate in the development of the next SOAER. This directly addresses one of the TKSP recommendations from the 2013 SOAER Indicators Workshop that traditional knowledge and science are considered together 'side by side, from the start'. The Committees worked on refining key indicators that could be informed jointly by traditional and local knowledge and western science. In 2016, the Committees began planning for a two-eyed seeing workshop to help guide the process of co-presenting multiple knowledges in the next SOAER.

The TKSP Steering Committee continued to help implement the Tracking Change – *The Role of Local and Traditional Knowledge in Watershed Governance* research project. The *Tracking Change* research project is led by researchers at the University of Alberta, working in partnership with the Government of the Northwest Territories, the Mackenzie River Basin Board, Indigenous governments and organizations from across the Basin and other national and international academic partners. The research project was funded under a Social Sciences and Humanities Research Council research grant in July 2015. Indigenous MRBB Members are the Steering Committee for the *Tracking Change* project.

In 2016, *Tracking Change* funded 12 community-based projects across the Basin. Many of the projects took place on the land and involved youth. Summaries of the projects, including key findings that communities wanted to share, were produced and will be available on the *Tracking Change* website.

The project also held its first Youth Knowledge Fair in 2016, with youth participants from across the Basin. Students from across the Mackenzie River Basin researched topics identified as important to their community and then came together to share their findings with one another. Projects could be informed by traditional and local knowledge and science. TKSP Steering Committee members helped to scope the Knowledge Fair and some members participated in the event.

In February 2016, members of the TKSP Steering Committee participated in the *Tracking Change* Global Knowledge Symposium in Ubon Ratchathani, Thailand. The purpose of the Symposium was to bring together community and research partners from the Mackenzie, Amazon and Mekong Basins to share outcomes from community-based projects, graduate student work and broader synthesis activities, as well as to plan for year two and develop community and academic deliverables. The Symposium provided an opportunity to connect Indigenous communities from across the Mackenzie River Basin to exchange knowledge, share experiences and discuss common issues related to environmental change and

MRBB Traditional Knowledge and Strengthening Partnerships Steering Committee continued

development in their regions. Symposium participants also had an opportunity to meet with villagers on the Mun River (a tributary to the Mekong) in a similar knowledge exchange and discussion.

The *Tracking Change* research project will document new traditional and local knowledge in the Mackenzie River Basin, share knowledge, experiences and challenges within and across Basin communities, provide advice on how the data should be communicated, and explore the role of local and traditional knowledge in informing watershed governance at multiple scales. This information will be available for future SOAERs and could also support the implementation of the BWMA.

Looking forward

The TKSP Steering Committee will continue to work jointly with the SOAER Steering Committee to advance the next SOAER. The MRBB TKSP Steering Committee will continue to support

and provide guidance to the process of gathering traditional and local knowledge for the SOAER. The TKSP Steering Committee, working together with the SOAER Steering Committee, will also provide advice and guidance on how this information can be effectively communicated in the SOAER.

The TKSP Committee will continue to participate in Tracking Change in the Steering Committee role. Through *Tracking Change*, the TKSP Steering Committee will again allocate funds for research projects across the Mackenzie River Basin, as well as in the Mekong and Amazon Watersheds. The TKSP Committee will review community-driven research proposals.

TKSP Steering Committee Members continued to express an interest in developing communication and outreach materials in support of their outreach work on behalf of the MRBB.

MRBB Communications Committee

The MRBB Communications Committee consists of an MRBB Indigenous Member and staff assigned by members of the MRBB.

The Communications Committee oversaw the completion of the *MRBB 2015-2016 Report to Ministers*. The Communications Committee also helped develop responses to information inquiries received by the MRBB.

The Communications Committee implemented a new look and feel of the MRBB Website, and maintained the website content.

Looking forward

The MRBB Communications Committee will support the communications needs of the MRBB as they arise. Specific tasks will include completing the next annual Report to Ministers, maintaining the MRBB website content, and developing MRBB communication materials.

Information Sharing

Several MRBB Ministers met during the 2015 Canadian Council of Ministers Environment Meeting. The Ministers discussed the need for cooperation in implementing the BWMAs.

In 2016-2017 at the bi-annual meetings, Board Members shared Member Reports on activities and issues within each jurisdiction of the Basin, as per prior notification provisions within the Master Agreement. MRBB Committees and the Secretariat also briefed the MRBB on their activities. Details of the activities of each committee are provided later in the report.

Looking Forward

In Fiscal Year 2017-2018, the Mackenzie River Basin Board anticipates that its activities will be directed towards the following priorities:

- Preparing for the initiation of a strategic and operational review of the Board and its work,
- MRBB Members will continue the discussion on the proposed revisions to the Technical Committee Terms of Reference. MRBB Members reaffirmed that the role of the Technical Committee will be to inform decisions. The Technical Committee will not resolve issues. The MRBB confirmed that the Technical Committee will include Indigenous representatives, to help ensure that the discussions include both the Western Science and Traditional Knowledge perspectives. This is consistent with the approach taken for the SOAER. MRBB will also discuss potential appointment and role of a Technical Committee Champion.
- Discussing roles for the Board in the implementation of the bilateral agreements, and developing communication materials in support of the completion of the agreements,
- Continuing the work of the State of the Aquatic Ecosystem Report Steering Committee and Traditional Knowledge and Strengthening Partnerships Steering Committee on the next Mackenzie River Basin State of the Aquatic Ecosystem Report, and
- Continuing the work of the Traditional Knowledge and Strengthening Partnerships Steering Committee in cooperation with the University of Alberta, Government of the Northwest Territories, and national and international partners to support the *Tracking Change - The Role of Local and Traditional Knowledge in Watershed Governance* Research Project.

Appendix I: Financial Report

Mackenzie River Basin Board Financial Report – April 1, 2016 to March 31, 2017

Funds Available		Comments
Payments	\$261,168	As specified in the Master Agreement. <i>Note there was an overpayment of \$1,168 by ECCC.</i>
Carry Forward	\$423,796	2015-16 carry forward (in anticipation of SOAER and Strategic Review expenses)
Total Funds Available	\$684,964	
MRBB Expenditures		
Personnel	\$139,779	Wages and benefits for the Executive Director
Service Contracts	\$39,218	Honoraria and Expenses for Indigenous Members
Transportation and Telecommunications	\$31,218	Travel, transportation, postage and telecommunications
Purchased materials, parts and supplies	\$1,176	Miscellaneous
Total	\$211,949	
2016-17 Carry Forward:	\$473,015	
Expenditures on behalf of the MRBB		
Professional Services	\$20,000.00	In 2015-2016 the Government of the Northwest Territories funded a contribution agreement on behalf of the MRBB in support of SOAER-related work. As result, the NWT 2016-2017 annual contribution was reduced by \$20,000.

Appendix II: MRBB Membership on March 31, 2017

Alberta

Member: Brian Yee
Alternate: Carmen de la Chevrotière
Indigenous Member: Cleo Reece

Northwest Territories

Member: Erin Kelly
Alternate: Robert Jenkins
Indigenous Member: Leon Andrew

Yukon

Member: Heather Jirousek
Alternate: Vacant
Indigenous Member: Sharon Peter

Canada

Environment and Climate Change Canada

Member: Cheryl Baraniecki
Alternate: Mike Renouf

Health Canada

Member: Teresa Laforest
Alternate: Vacant

British Columbia

Member: Lynn Kriwoken
Alternate: Pieter Bekker
Indigenous Member: Vera Nicholson

Saskatchewan

Member: John Fahlman
Alternate: Gary Neil
Indigenous Member: Joseph Tsannie

Indigenous and Northern Affairs Canada

Member: Mohan Denetto
Alternate: Jennifer O'Neill

Appendix III: Changes in MRBB Membership April 1, 2016 to March 31, 2017

Northwest Territories

Erin Kelly replaced Shannon Cumming as MRBB Member

Robert Jenkins replaced Erin Kelly as alternate MRBB Member

Leon Andrew replaced Sonny MacDonald as Indigenous MRBB Member

Alberta

Carmen de la Chevrotière replaced Tim Toth as alternate MRBB Member

Yukon

No Change

British Columbia

No Change

Saskatchewan

John Fahlman replaced Jim Gerhart as MRBB Member

Environment and Climate Change Canada

No Change

Indigenous and Northern Affairs Canada

No Change

Health Canada

No Change



MRBB