

REPORT ON THE STATE OF CONSERVATION OF WOOD BUFFALO NATIONAL PARK WORLD HERITAGE SITE (CANADA)

**IN RESPONSE TO:
WORLD HERITAGE COMMITTEE DECISION 43 COM 7B.15**

1 DECEMBER 2020



Wood Bison herd in the Peace-Athabasca Delta, Wood Buffalo National Park (Photo: J. McKinnon, Parks Canada)

Table of Contents

List of Acronyms	1
1. Executive Summary	2
2. Response to the decision of the World Heritage Committee	3
2.1 Responses to specific requests of Decision 43 COM 7B.15.	3
2.2 Overview of progress on Action Plan implementation	8
3. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value	17
4. Potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridor or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.....	19
5. Public access to the state of conservation report	19
6. Signature of Authority	19
Appendix A: WHC Decision 43 COM 7B.15.....	20
Appendix B: Action Plan Implementation Progress Tracking Table	22

List of Acronyms

AB: Government of Alberta
AEP: Alberta Environment and Parks
AER: Alberta Energy Regulator
BC: Government of British Columbia
BSA: Biodiversity Stewardship Area
CBM: Community-based Monitoring Program
CMC: Committee for the Cooperative Management of Wood Buffalo National Park
DEM: Digital Elevation Model
DNA: deoxyribonucleic acid
ECCC: Environment and Climate Change Canada
eDNA: Environmental DNA
EFH: Environmental Flows and Hydrology
EIA: Environmental Impact Assessment
EIS: Environmental Impact Statement
FPTI: Federal-Provincial-Territorial-Indigenous
IAA: Impact Assessment Act
IAAC: Impact Assessment Agency of Canada
IK: Indigenous Knowledge
JRP: Joint Review Panel
KNW: Kitaskino Nuwenënë Wildland
LARP: Lower Athabasca Regional Plan
LiDAR: Light Detection and Ranging
MCFN: Mikisew Cree First Nation
MSIKTT: Monitoring, Science and Indigenous Knowledge Task Team
NRBS: Northern River Basins Study
NRCan: Natural Resources Canada
NREI: Northern Rivers Ecosystem Initiative
NWT: Government of Northwest Territories
OSM: Oil Sands Monitoring Program
OUV: Outstanding Universal Value
PAD: Peace-Athabasca Delta
PCA: Parks Canada Agency
RLBH: Ronald Lake Bison Herd
SEA: Strategic Environmental Assessment
SMART: Specific, Measureable, Achievable, Realistic, Timely
TMF: Tailings Management Framework
UNESCO: United Nations Educational, Scientific and Cultural Organization
WBNP: Wood Buffalo National Park
WHC: World Heritage Committee
WHS: World Heritage Site
WPP: Wildland Provincial Park

1. Executive Summary

Established in 1922 to protect the last remaining herds of wood bison, Wood Buffalo National Park (WBNP) is Canada's largest national park and is located in the traditional territory of First Nations and Métis peoples of the region. The park is home to the largest free-roaming, self-regulating wood bison herd in the world, the only remaining nesting ground of the endangered whooping crane, the biologically rich Peace-Athabasca Delta (PAD), extensive salt plains unique in Canada, and some of the finest examples of gypsum karst topography in North America. The presence of such rare and superlative natural phenomena led to the park's inscription as Canada's eighth UNESCO World Heritage site in 1983.

This report responds to the request of the World Heritage Committee in 2019 (Decision 43 COM 7B.15) to provide an update on the state of conservation of Wood Buffalo National Park World Heritage Site (WBNP WHS, or "the property") and implementation of the Action Plan to protect its Outstanding Universal Value (OUV).

The Government of Canada, in cooperation with its Provincial, Territorial and Indigenous government partners, has made significant progress in implementation of the Action Plan. In Budget 2018, the Government of Canada committed \$27.5 million to the development and early implementation of an Action Plan, which was submitted to the World Heritage Centre in February 2019. This ambitious plan outlines 142 actions across 7 thematic areas.

The "Environmental Flows and Hydrology" theme and the "Monitoring and Science" theme together comprise a majority of the actions. Notable progress has been made on renewal of partnerships and collaboration, improvements to monitoring and communication, and evaluation of existing and proposed water management structures in the PAD area of the park.

Pursuant to the "Strengthening Indigenous Partnerships with Wood Buffalo National Park" theme, strengthened collaboration between WBNP and its Indigenous partners has resulted in enhanced cooperative management, increased scientific capacity for park management, and specific policies to provide increased economic opportunities for Indigenous peoples at WBNP.

Focused, collaborative work on the remaining Action Plan themes has resulted in improved impact assessment processes; the establishment of extensive protected areas adjacent to, and buffering, the property; and research, monitoring and management activities that support the recovery of species at risk, including the threatened Wood Bison and endangered Whooping Crane.

Over half of the actions detailed in the Action Plan are completed or underway at this early stage of implementation. The Government of Canada recognizes the scale and complexity of issues facing the property, and remains committed to continuing the collaborative efforts with Provincial, Territorial and Indigenous government partners required to ensure the ongoing protection of the property's OUV for future generations.

2. Response to the decision of the World Heritage Committee

The Government of Canada welcomes Decision 43 COM 7B.15 (2019) and remains committed to implementing the Action Plan for WBNP WHS.

The Action Plan recognizes that the multi-jurisdictional nature of the conservation challenges which are impacting the property and the shared jurisdiction over natural resources in Canada requires cooperation and collaboration between a range of governments and with Indigenous peoples and stakeholders. Leveraging opportunities to work collaboratively with all parties will advance actions in support of the maintenance of the property's OUV. Parks Canada, as the State Party representative for Canada to the *World Heritage Convention*, is working closely with Environment and Climate Change Canada (ECCC) and the Impact Assessment Agency of Canada (IAAC), and in partnership with the governments of Alberta, British Columbia and the Northwest Territories, as well as with Indigenous partners and other stakeholders, to implement the Action Plan and ensure conservation of the property's OUV for current and future generations.

The ongoing commitment to fair, transparent, and meaningful engagement is evidenced by the highly collaborative nature of Action Plan implementation to date and the deepening and strengthening of relationships between all parties involved. Specific examples of Action Plan implementation resulting from these collaborations are highlighted in this report. Progress on fulfilling several commitments has been made possible through the enhanced relationships that have developed between the federal, provincial and territorial governments and Indigenous partners during Action Plan development and implementation.

This State of Conservation report is provided to inform the World Heritage Committee's upcoming 45th session in 2021.

2.1 Responses to specific requests of Decision 43 COM 7B.15.

Responses to paragraphs 5 through 13 of Decision 43 COM 7B.15 (2019) are presented below.

Paragraph 5:

Welcomes the creation of a protected area complex next to the property through the designation of provincial parks, and also encourages the federal and the provincial governments to allocate adequate resources to enable effective coordination and management for the property and the new protected areas, and to consider the designation of a buffer zone for the property;

Parks Canada is leading work to understand the complexities of ecosystem connectivity and how this connectivity relates to the OUV of the property. This analysis will inform conservation planning and management at the landscape scale across the entire protected area complex.

The establishment of Richardson, Birch River, and Kazan Wildland Provincial Parks (WPPs) adjacent to WBNP in 2018 and the Kitaskino Nuwenëné Wildland (KNW) in 2019 by the Government of Alberta, in

collaboration with Indigenous communities and industry, protects approximately 13,293 km² of provincial crown land adjacent to WBNP. These protected areas provide significant buffers and landscape connectivity to WBNP, contributing to the largest contiguous protected boreal forest in the world.

As committed in the Lower Athabasca Regional Plan (LARP) in 2012, the Richardson, Birch River, and Kazan WPPs were fully reviewed to assess any economic impacts on resource industries or communities. Industry tenures in the parks were compensated following the approval of LARP, leaving the lands free to be designated for protection. Treaty 8 Tallcree First Nation, in cooperation with the Nature Conservancy of Canada and the Alberta and federal governments and with support from Syncrude Canada Ltd. gave up their Birch River area timber licence and quota to enable the Birch River WPP to proceed. When the LARP was established in 2012, it included the commitment to establish additional conservation areas in the Lower Peace region; the Government of Alberta established protective notations on those identified areas and further conservation measures may be considered as part of the Lower Peace regional plan development.

Initially proposed by Mikisew Cree First Nation and Teck Resources Limited (Teck) in 2016, KNW (previously referred to as the Biodiversity Stewardship Area) was established as a WPP under the *Provincial Parks Act* through an Order in Council in March 2019. KNW covers an area of 16,190 km² along the southern boundary of WBNP. WPPs are managed for the overall conservation of nature and protection of associated cultural values with opportunities for backcountry or remote backcountry recreation. Guiding, outfitting, hunting, trapping, and off-highway vehicle use on designated trails are all permitted activities in WPPs. Existing rights of Indigenous Peoples are also respected in all WPPs, which (as described above) remain open to hunting, trapping, fishing and other traditional use activities.

KNW is intended to align with Indigenous Peoples' cultural values and way of life. The area includes many natural values important to Indigenous Peoples' culture and well-being, including the Ronald Lake bison herd – a bison population with which many Indigenous Peoples in the region share a cultural relationship. KNW increases protection of the Peace-Athabasca watershed, while increasing landscape connectivity between existing WPPs and WBNP. This is important to maintain ecological integrity and habitats for species at risk.

The KNW is intended to support the exercise of Treaty and harvesting rights for First Nations and approved Métis harvesters, as well as other traditional uses, including cultural activities, for Indigenous Peoples. Alberta will work with Indigenous communities and organizations to explore cooperative management opportunities for the KNW.

WPPs are managed for the overall conservation of nature and protection of associated cultural values with opportunities for backcountry or remote backcountry recreation. Guiding, outfitting, hunting, trapping, and off-highway vehicle use on designated trails are all permitted activities in WPPs. Existing rights of Indigenous Peoples are also respected in all WPPs, which (as described above) remain open to hunting, trapping, fishing and other traditional use activities.

The Government of Alberta continues to work with Indigenous partners on cooperative management for a number of Wildland Parks with the intent of providing advice to the Minister of Alberta Environment and Parks on park-specific management plans, including recommendations on issues that affect traditional use and cultural practices.

Paragraph 6:

Also welcomes the threat analysis undertaken for the Ronald Lake Bison Herd, and requests the State Party to fully consider the findings of the ongoing assessment in the overall Species Recovery Strategy;

The Ronald Lake Bison Herd (RLBH) ranges south of WBNP WHS and has high conservation importance as a free-ranging, naturally founded and genetically distinct disease-free wood bison population. The recovery of wood bison in Canada is dependent on maintaining the disease-free status, range and population size of each disease-free local population of wood bison in Canada, including the Ronald Lake Bison herd. ECCC's Canadian Wildlife Service conducted an Imminent Threat Assessment to determine whether wood bison are facing imminent threats to their recovery, with a focus on the RLBH, in response to requests from two First Nations. Following completion of the Imminent Threat Assessment, the Minister of Environment and Climate Change Canada formed the opinion that wood bison are facing imminent threats to their recovery, in part because of threats to the RLBH (<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/related-information/summary-threat-assessment-wood-bison.html>). These threats include the risk of contracting two bovine diseases from diseased bison in WBNP, as well as range loss from proposed industrial activities. The findings of the Imminent Threat Assessment will inform ongoing research, monitoring and management in support of wood bison recovery.

For more information, see **Section 2.2: Wildlife and Habitat Conservation**.

Paragraph 7:

Noting with concern the continued threat the Site C hydropower project and other major dams on the Peace River pose on the OUV of the property, also requests the State Party to provide a detailed update on the progress towards undertaking an environmental flow and hydrology assessment as recommended in the 2016 mission;

Environmental flow assessments were requested by the World Heritage Committee (Decision 41 COM 7B.2) to improve understanding of water flows needed to sustain the ecological functioning of the PAD. A longer term modelling effort is now underway to build a holistic, inter-jurisdictional framework that captures the complex interactions within the Peace and Athabasca River basins that influence the health of the PAD.

It is recognized that continued engagement with Indigenous partners is critical to the development of the framework. Indigenous perspectives are an important part of creating a full understanding of the complex hydrology and ecology of the Peace and Athabasca River Basins and the PAD.

At the same time, work is underway to develop a better understanding of the PAD, particularly the surface water connectivity to the deltaic flood plain, including relevant ice processes in key rivers and

channels, so that the framework can inform ongoing and future management actions that implicate WBNP WHS.

More details regarding progress on this work can be found in **Section 2.2: Environmental Flows and Hydrology**.

Paragraph 9:

Also requests the State Party to conduct a systematic risk assessment of the tailings ponds of the Alberta Oil Sands as a matter of priority, and to submit it to the World Heritage Centre, for review by IUCN, in accordance with Paragraph 172 of the Operational Guidelines;

The Government of Alberta has the jurisdictional authority and responsibility to ensure regulatory oversight of tailings associated with oil sands development, and is pursuing opportunities to assess the risks posed by tailings ponds to the PAD. For additional details see **Section 2.2: Tailings Ponds Risk Assessment**.

Paragraph 10:

Also notes with serious concern the downward trend confirmed by the Strategic Environmental Assessment (SEA) of the indicators for the property's OUV, considers that continued deterioration of the OUV could eventually constitute a case for inscription of the property on the List of World Heritage in Danger, in line with Paragraph 180 of the Operational Guidelines, therefore further requests the State Party to ensure that the SEA's recommendations are fully considered in future Environmental Impact Assessments (EIAs) and decision-making for relevant developments and that the Action Plan be implemented in a timely manner with adequate funding, in order to avert continued deterioration of the property's OUV;

Impact assessments are one tool Canada uses to evaluate the potential impacts of certain large scale development projects that may impact the property's OUV so that decision-makers can consider those impacts in decision-making. When federal assessments are required, they provide an opportunity to consider the potential impacts on OUV by integrating scientific information and Indigenous Knowledge into decision-making processes related to large projects. As a result, they provide a mechanism to consider the potential impacts on OUV prior to making a decision. The Government of Canada is ensuring that all current and future environmental assessment reviews conducted pursuant to federal legislation consider the specific and cumulative impacts (inclusive of climate change) on the OUV of WBNP WHS, and is working to further define and clarify the role of impact assessments in protecting the property's OUV.

Pursuant to commitments within the Action Plan, the SEA was submitted to the Joint Review Panel (JRP) for the Teck Frontier Oil Sands Mine Project and the JRP fully considered the SEA's findings as part of its review.¹

Details on funding for the Action Plan are provided in the response to Paragraph 11 below and in **Section 2.2: Overview of progress on Action Plan implementation.**

Paragraph 11:

Further welcomes the significant funding already assigned to the implementation of the Action Plan, but also considers that more funding will likely be needed given the size of the property and complexity of issues to address;

In Budget 2018, the Government of Canada made an historic investment of \$1.35 billion to protect Canada's nature, parks, and wild spaces, including an investment of \$27.5 million in funding over five years to support the development and implementation of the Action Plan for WBNP WHS. These funds have resulted in the successful completion and early implementation of actions under the Action Plan (see Appendix B).

The Government of Canada is committed to the full implementation of the Action Plan. As Canada, in parallel with all governments around the world, adjusts to the impacts of the COVID-19 pandemic on fiscal frameworks, priority actions are being advanced with existing resources while longer term funding is being identified.

For more information, see **Section 2.2: Overview of progress on Action Plan implementation.**

Paragraph 12:

Further encourages the State Party to take advantage of the pending Management Plan review for the property to further substantiate and amend the valuable information generated by the SEA and Action Plan processes and link action with adequate governance and resource allocation, including effective sharing of governance and management with indigenous peoples inside and outside of the property;

Parks Canada and its partners are committed to ensuring that the next management plan for WBNP is informed by the information generated by the 2018 SEA and the Action Plan processes. Required by legislation, the management plan is a strategic guide for the park's future management. Any future management review will be conducted in close collaboration between Parks Canada and the Indigenous partners of Wood Buffalo National Park.

¹ Teck Resources Limited withdrew its application for the proposed Frontier Oil Sands Mine project on February 23, 2020. On February 25, 2020, the Canada's Minister of Environment and Climate Change terminated the environmental assessment of the proposed Project pursuant to *the Canadian Environmental Assessment Act, 2012*, at the request of Teck Resources Ltd.

At this time, Parks Canada and Indigenous partners remain focused on working in partnership through the Cooperative Management Committee to collaborate in the management and stewardship of WBNP. It is through this important work that relationships are being strengthened to support strong, effective governance and management of the park.

For more detailed information, see **Section 2.2: Strengthening Indigenous Partnerships with Wood Buffalo National Park and Monitoring and Science.**

Paragraph 13:

*Finally requests the State Party to submit to the World Heritage Centre, by **1 December 2020**, an updated report on the state of conservation of the property and the implementation of the above, including detailed information on the outcomes of continued assessments, mitigation and compliance measures, in relation to potential impacts of the Site C hydropower project and of other major dams on the Peace River on the OUV of the property, for examination by the World Heritage Committee at its 45th session in 2021.*

Concerning the Site C Clean Energy Project, IAAC continues to monitor and verify compliance with the *Impact Assessment Act (2019)* and the decision statement issued by Canada's Minister of Environment and Climate Change.

AHP Development Corporation remains interested in constructing the Amisk Hydroelectric Project on the Peace River in Alberta, but notified IAAC in June 2020 that studies in support of the Environmental Impact Statement (which have been suspended since 2017) are not planned to resume in the immediate future. Pursuant to the Action Plan, IAAC will amend the Guidelines for the Preparation of the Environmental Impact Statement for the Amisk Hydroelectric Project to direct consideration of potential effects of the project on the OUV of the park, including the PAD.

For more detailed information, see **Section 2.2: Environmental Flows and Hydrology.**

This State of Conservation Report is submitted in response to the request for an updated report on the state of conservation of the property by December 1, 2020.

2.2 Overview of progress on Action Plan implementation

The Government of Canada is committed to the on-going implementation of the Action Plan in collaboration with all its partners. This report provides a summary of progress in implementation to date since the tabling of the Action Plan in Parliament in March 2019.

The global health crisis of the COVID-19 pandemic has had profound implications for the Government of Canada's business continuity. In March 2020, Parks Canada offices including WBNP's were closed as employees shifted to working from home. Business resumption planning began immediately, and many sites opened, in a limited capacity, in June 2020, with more fulsome opening in the summer months.

With respect to implementation of the Action Plan, the constraints posed by the COVID-19 pandemic meant that field work, face to face meetings, workshops, community engagement and other activities were all cancelled, adjusted or postponed. Essential field work was continued where possible with adherence to public health orders. Meetings, workshops and other engagement shifted to virtual forums. Implementation activities are proceeding in manners consistent with relevant public health orders.

Progress on Action Plan implementation to date is highlighted below against key themes of the Action Plan. Appendix B outlines the 142 actions identified in the plan, noting whether a particular action is completed, underway, not started or not due at the time of this writing.

Strengthening Indigenous Partnerships with Wood Buffalo National Park:

In 2014, the Committee for the Cooperative Management of Wood Buffalo National Park (CMC) was formed to provide a venue for the exchange of information and dialogue between Parks Canada and Indigenous partners. The CMC is comprised of representatives from each of the 11 Indigenous organizations and representatives from Parks Canada, and meets regularly to identify and engage on issues of mutual importance to Indigenous partners and park management, including on advancing Actions 1 through 6 of the Action Plan. Since the last State of Conservation Report in 2018, the collaboration at the CMC between Parks Canada and Indigenous partners has resulted in the establishment of two co-developed policies.

The WBNP Human Resource Policy guides Parks Canada and its Indigenous partners on hiring and staffing matters. Specifically, the policy is designed to increase awareness and the level of interest of Indigenous people in Parks Canada's positions, resulting in more Indigenous applicants and hiring. It also identifies staff training and approaches to encourage retention of Indigenous staff. The policy is now in effect and it will be adapted and improved as barriers to Indigenous hiring are identified. Staff capacity has been increased in the Fort Chipewyan office in particular to address some of the key capacity issues raised by the World Heritage Committee, and now includes Indigenous staff in both administrative and management positions.

The WBNP Procurement Policy, completed in 2020, identifies incentives and opportunities for increased Indigenous economic benefits and includes Indigenous representatives in the procurement process. The goal of the policy is to assist Indigenous businesses to secure increased numbers of contracts issued through the WBNP procurement program, and to produce economic spin-off benefits in associated communities as a result.

Since the last State of Conservation report in 2018, all Wood Buffalo National Park staff have received training in reconciliation, and new employees are provided with an orientation to the park-specific Indigenous context. To further strengthen the relationship between Parks Canada staff and local Indigenous people, Wood Buffalo National Park is committed to continued collaboration with Indigenous partners, through the CMC and bi-laterally, to identify and co-develop other training and engagement opportunities.

The CMC recognizes the desire for increased cultural interpretation and programming at WBNP, and has identified this as a key priority under the Action Plan. Indigenous programming offered to park visitors, Indigenous ceremonies for park events and Indigenous-led activities all enhance the profile of Indigenous peoples in WBNP and recognize the Indigenous history and contributions to WBNP. Although the impacts of COVID-19, beginning in March 2020, resulted in a halt to almost all visitor programming in 2020, Parks Canada is committed to continued support for this effort.

The CMC brings together all parties to discuss issues of shared interest. Progress made at the CMC is essential to building increased trust and advancing further collaboration as all parties work toward the successful implementation of the Action Plan. Parks Canada also continues to work bilaterally with Indigenous partner organizations to engage on topics of mutual interest.

Environmental Assessment:

Many of the actions identified in the Environmental Assessment theme of the Action Plan related to impact assessment have been completed. These include

- Submission of the SEA to the Joint Review Panel for the proposed Frontier Oil Sands Mine Project for consideration (this project was subsequently withdrawn by the proponent).
- Amendment of the Joint Review Panel Agreement for the proposed Frontier Oil Sands Mine Project to mandate the Joint Review Panel to consider and report on the potential environmental and cumulative effects of the proposed project on the OUV of WBNP, including on the PAD.
- Government of Canada evaluation of the potential effects of the proposed Frontier Oil Sands Mine Project on the OUV of the park and submission of this assessment to the Joint Review Panel for its consideration in the environmental assessment.

Canada recognizes the contribution of the impact assessment process to the protection of the OUV of WBNP. In August 2019, the Government of Canada enacted the new *Impact Assessment Act (2019) (IAA 2019)*, which outlines the process for assessing the impacts of federal designated projects including positive and negative environmental, economic, health, and social effects of proposed projects, and impacts to Indigenous groups and the rights of Indigenous peoples.

Alberta continues to work with Indigenous communities on the implementation of the Surface Water Quantity Management Framework for the Lower Athabasca River (the Framework). The Framework aims to manage cumulative water withdrawals in support of both human and ecosystem needs, considering an acceptable balance between social, environmental, and economic interests. Annual reporting is completed on implementation of the Framework's weekly management triggers and associated water withdrawal limits, as well as the long term adaptive management triggers. Ongoing work includes further development of the navigation component of the Framework in collaboration with Indigenous communities and groups, and initiatives to address key ecological knowledge gaps related to water flows and levels in the lower Athabasca River and the PAD. Since the release of the Action Plan, initial collaborative work on the navigation component of the Framework was completed in 2020 with six Indigenous communities and groups that have been the most directly involved in work and discussions on

navigation in the lower Athabasca River. This work identified priority tasks for further development of the navigation component of the Framework.

Conservation Area Connectivity:

Parks Canada is working to identify the connectivity needs of wildlife represented within the OUV of WBNP WHS, which is needed to guide conservation planning and management at the landscape scale.

Connectivity needs assessments will target elements of OUV that represent specific species (wood bison, whooping crane) as well as elements of OUV that represent major park ecosystems and other priority species (other species at risk, of conservation concern, or of cultural importance). These assessments will be based on emerging pan-Canadian standards and indicators for landscape connectivity through the Pathway to Canada Target 1 initiative and the National Connectivity Working Group (<https://www.conservation2020canada.ca/home>).

Indigenous knowledge and engagement on habitat identification and mapping that will link to this theme will be led through a collaboration between the Monitoring, Science and Indigenous Knowledge Task Teams and the Indigenous Task Team of the Action Plan. The intent is that coordination of knowledge gathering will be supported by in-community Indigenous Knowledge Advisors and will include within-community interviews and on-the-Land knowledge gathering sessions. These events will target elders, land users and youth. If possible given COVID19 restrictions, this work will be supplemented by targeted workshops involving both science and Indigenous knowledge holders to promote knowledge integration and enhance the quality of the connectivity assessments.

The Government of Canada is ensuring linkages are in place between the work of the Action Plan and the Pathway to Canada Target 1 Connectivity Working Group. This Pan-Canadian working group is leading Canada's development of landscape connectivity indicators related to Aichi Target 11 from the Convention on Biological Diversity. With support from this working group, the connectivity needs assessments identified in the Action Plan will adhere to national and international standards.

Tailings Ponds Risk Assessment:

The Oil Sands Monitoring (OSM) Program is jointly managed by the Governments of Canada and Alberta through a governance structure including representatives of Indigenous communities and industry. The Program is guided by an *Operational Framework Agreement* (November 2018) that establishes the governance structure responsible for the implementation, management, and oversight of the OSM Program. It is this multi-stakeholder governance structure that coordinates the annual work planning process, assesses work plans and results, and makes recommendations on the Program's annual monitoring plan.

The design of the OSM Program considers a wide variety of stressors to the Athabasca watershed, including detection of the potential influence of oil sands tailings migration beyond containments. Aquatic ecosystem monitoring throughout the watershed, ensures that the influence of tailings water on aquatic ecosystems will be detected. The OSM Program is also developing and improving analytical methods to detect the presence of oil sands tailings in groundwater, surface waters and biotic tissues.

The intent is that these methods could be applied to the monitoring of streams, rivers and groundwater in areas of potential tailings influence.

In addition to monitoring changes in environmental condition related to oil sands development, the OSM Program is gathering information and developing tools to inform predictions about future environmental condition, including those relating to tailings management. The foundational documents of the OSM Program refer to 'cumulative effects monitoring', in which a prediction, e.g. a cumulative effects assessment or ecological risk assessment, is iteratively tested and revised using monitoring data. The OSM program is currently developing an Environmental Effects Monitoring framework to implement approach.

Alberta Environment and Parks (AEP) staff are currently (October 2020) working with Indigenous community representatives to develop a submission to the OSM Program for consideration in the 2021-22 monitoring cycle to initiate a systematic tailings pond risk assessment. The OSM Program represents critical resources, partnerships, collaborative opportunities and capacity that can inform this assessment.

The Lower Athabasca Region Tailings Management Framework for the Mineable Athabasca Oil Sands provides direction to manage fluid tailings volumes during and after mine operations to reduce liability and environmental risk resulting from the accumulation of fluid tailings on the landscape. AEP and the AER continue to work with industry, Indigenous groups and other stakeholders to advance implementation of the Tailings Management Framework (TMF).

The TMF requires companies to progressively treat their tailings with a technology approved by the AER, so that they are ready to reclaim within 10 years after mining has stopped. The AER has approved tailings management plans for each oil sands mine, which list the actions companies will take over the next several decades to meet this objective in the TMF. To ensure a company's tailings management activities remain on track, the AER has set thresholds on companies (i.e., limits and triggers) within their plans. These thresholds remain in place for the life of a mine.

The volume of tailings at an oil sands mine can vary each year depending on many factors including the quality of the oil sands mined, and the processes and technologies used to produce bitumen and treat tailings. The AER uses each company's tailings management plan and yearly progress reports to determine how much of their tailings are ready to reclaim. Each company's tailings management plan has one or more profiles that track the volume of tailings that must be treated and reclaimed over the lifecycle of the mine.

Each year, the AER reports on the volume of fluid tailings at each oil sands mine and the technologies that companies are using to treat them. The *State of Fluid Tailings Management for Mineable Oil Sands* report summarizes progress reports that companies are required to submit to the AER by April 30 each year, for the previous calendar year. The report shows that fluid tailings at oil sands mines increased by 3 per cent in 2019 compared to 2018, while bitumen production rose by 5 per cent. All companies were in compliance with AER requirements.

In 2019, the OSM Oil Sands Process Affected Water-Science Team (OSMW-ST) released a comprehensive toxicity assessment plan and an enhanced environmental monitoring plan for a pilot-scale process water release. Following this, the science team was re-scoped to form the OSMW-ST to provide technical input

to inform regulatory requirements that would inform the development of regulatory guidance documents that would describe the conditions under which treated mine waters could be safely released into the environment, for potential mine water releases at the sector-scale. The OSMW-ST continues to be led through AEP's Office of the Chief Scientist. It includes seven Indigenous communities as well as representatives from Alberta Environment and Parks, AER, the Alberta health industry, ECCC, and academia.

In June 2020, AEP stood up the Oil Sands Reclamation Interest Group (OSRIG) with members from indigenous communities, environmental non-government organizations, industry, and municipal government. The purpose of the OSRIG is to collect non-technical, strategic-level policy advice and to discuss perspectives, interests and potential opportunities related to policy direction for oil sands mine reclamation.

Environmental Flows and Hydrology:

The Environmental Flows and Hydrology (EFH) theme encompasses a broad and varied set of actions. Actions within this theme are implemented by the multi-jurisdictional EFH Working Group and its supporting task teams (comprised of federal, provincial, territorial and Indigenous representatives). The EFH Working Group is also supported by a secretariat consisting of representatives from Environment and Climate Change Canada (ECCC) and Parks Canada Agency.

- **Establish renewed and effective partnerships:** A draft Terms of Reference for a multi-jurisdictional and Indigenous governance committee to oversee the implementation of the EFH theme is under development, with a focus on key governance features.
- **Establish Data Sharing Protocols:** Representatives from First Nations and Métis communities are working with representatives of the Government of Canada to develop a template for Indigenous Knowledge Data Sharing and Use Agreements for the EFH theme and the Action Plan. This template is designed to be modified and customized to meet the specific needs of participating Indigenous partners and assist in the use of Indigenous Knowledge to discuss, inform, manage and implement the Action Plan.
- **Water Management Control Structures:**
 - The Action Plan envisions the use of water control structures within the PAD to create local hydrological conditions that support ecological functioning and Indigenous use in identified target areas.
 - In 2019/20, contracts were issued to complete (1) an evaluation of the condition and performance of the existing outflow weirs within the PAD, and (2) assessments of the feasibility of new water control structures at Dog Camp and Big Egg Lake locations within the PAD. Following consideration of the feasibility assessments for these proposed water control structures and presentation of the assessments' conclusions to the community of Fort Chipewyan, these project proposals are advancing to the preliminary design stage.
 - Further assessments will inform whether to proceed with detailed designs and construction of new structures. PAD First Nations and Métis community members and

representatives are active participants in shaping the assessments through sharing local and Indigenous Knowledge and participating in technical project-level discussions.

- **Knowledge Hub for PAD information and data to be more easily accessible:**
 - An Information Portal was developed in 2019 using the Mackenzie River Basin Board website² as a means to compile and share information among the EFH working group members. It is an interim solution while longer-term options for the Knowledge Hub are investigated through a comparative assessment of web-based information portals .
 - A user needs survey was completed to inform the development of the Knowledge Hub. The main feedback was the need for the Knowledge Hub to be a centralized repository for all information related to the PAD and to be an information-sharing platform where users can easily access and utilize data to guide decision-making concerning WBNP and the PAD.
 - The vision for this Knowledge Hub is that its long term coordination and management will be led by an Indigenous-led center for Indigenous knowledge and science integration for the conservation of the PAD.
- **Monitoring and state of knowledge: Assess the current state of knowledge and monitoring in the Peace-Athabasca Delta:** In 2019 an updated report was completed that delivers an inventory of monitoring and research from western science and Indigenous and community based science conducted since 2010 that provides information on the ecological integrity of the PAD.
- **Environmental flows assessment information gathering to support modelling:** A longer term environmental flow assessment and modelling effort is now underway to build a basin-wide, holistic, inter-jurisdictional framework in support of improved water management in the PAD.
 - A March 2019 Environmental Flows and Hydrology Modelling Workshop began scoping the elements including the variables, data, and existing models to develop the framework. Elders and representatives from First Nation and Métis communities in and around WBNP, academics, watershed associations, environmental non-governmental organizations, provincial, territorial and federal governments, and industry attended.
 - The outputs from the workshop are being used as the base for developing the initial EFH framework. Indigenous engagement on that basic framework will form an integral part of the final outputs and will require incorporating additional Indigenous knowledge and observations from the communities into our understanding of the driver, pressure and stressor pathways in the systems as well as starting to understand the impacts of these changes more broadly.
 - Federal, provincial and academic partnerships are being leveraged to advance work toward a comprehensive understanding of the physical hydrology of the PAD, particularly floodplain connectivity. For instance, through the OSM Program and ECCC collaboration

² www.mrb.ca

with Natural Resources Canada, LiDAR was flown in 2019 to measure surface elevations in a large area of the delta. Data from this and prior survey campaigns are being processed to produce an updated digital elevation model (DEM) of the PAD.

- As part of a Canadian Space Agency funded study of the Surface Water and Ocean Topography (SWOT) satellite, the University of Sherbrooke and ECCC are working on the development of a hydrodynamic model for PAD.

Monitoring and Science:

Two Monitoring, Science and Indigenous Knowledge Task Teams (MSIKTT) have been established to advance actions under the Monitoring and Science thematic area and in support of other thematic areas. These task teams, one focused on the PAD and the other on non-PAD OUV, are comprised of representatives from federal, provincial, territorial governments and Indigenous partners. Priority actions have been identified and a work plan has been developed, with the focus remaining on developing integrated research and monitoring programs for PAD and non-PAD related elements of OUV. PCA and Indigenous partners of the PAD are exploring opportunities for the implementation of key monitoring and research elements through Indigenous leadership.

Key highlights of actions completed or underway at the time of this report include:

- Completion of an updated inventory of research and monitoring programs and projects in the PAD, including those incorporating Indigenous knowledge;
- Completion of an Enhanced Wetland Classification (EWC) for WBNP. This EWC provides baseline mapping for the Monitoring and Science theme actions and supports habitat and connectivity assessments for the Conservation Area Connectivity theme;
- Completion of PAD-wide LiDAR data acquisition that will be used to develop a high-resolution elevation model, necessary for developing an improved understanding of PAD hydrology and for supporting achievement of outcomes related to any water management interventions;
- Implementation of invasive species monitoring program for the PAD area and the Salt Plains;
- Completion of a 35-year surface water assessment of the approximately 5000 perched basins in the PAD;
- Initiation of an analysis of waterfowl species and guild abundance to link trends to patterns of surface water extent in the PAD;
- Collaboration with partners to update science and Indigenous knowledge monitoring information on muskrat health, abundance, genetics and tissue contaminants;
- Collaboration with academic partners to use eDNA to more effectively monitor trends in fish health, abundance and diversity throughout the PAD system;
- Initiation of a feasibility assessment for the design of an acoustic tagging-based monitoring program to study the movements of fish from the PAD to the oil sands minable area; and
- Development of Indigenous knowledge gathering and engagement efforts on the health of OUV through community-led “knowledge camps”.

To continue advancing work under this theme the PAD and non-PAD MSIKTTs are co-developing detailed, multi-year work plans that include a virtual workshop for early in 2021.

Wildlife and Habitat Conservation:

Current initiatives captured under the Wildlife and Habitat Conservation theme are focused on Wood Bison and Whooping Cranes, two of the key elements of the OUV of WBNP WHS.

With respect to Wood Bison, Canada's Minister of Environment and Climate Change has formed the opinion that Wood Bison are facing imminent threats to their recovery, in part because of threats to the RLBH. The Minister's decision is available on the Species-at-Risk public registry at:

<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/related-information/summary-threat-assessment-wood-bison.html>

The main threat to the RLBH, whose range is predominantly south of WBNP but partially extends into the very southern end of the park, includes the risk of contracting two bovine diseases from diseased bison in Wood Buffalo National Park, as well as range loss from proposed industrial activities.

In support of species recovery, detailed critical habitat identification for disease-free bison herds, including the RLBH, was initiated in summer 2020 with completion anticipated in 2023. Critical habitat within WBNP WHS is protected through the *Canada National Parks Act* and the federal *Species at Risk Act*.

Population size, distribution, productivity and health of wood bison herds in WBNP WHS are monitored through aerial and ground surveys, and a collaring program is underway to monitor and assess habitat and use of movement corridors, essential information required to understand the potential for contact between the diseased PAD subpopulation from WBNP and the RLBH in Alberta. In addition, the RLBH Technical Team³, established by the Government of Alberta, continues its multi-year program of study to better understand the status of the herd including the collection of information on its range and distribution, habitat quality and quantity, disturbance impacts, herd population parameters and predation impacts.

Outside of the property and under the authority of the Government of Alberta, the RLBH Cooperative Management Board was formally established in 2019. Members include Indigenous communities and organizations, provincial and federal government, non-profit, and industry organizations. The Board's purpose is to advise the Minister of Alberta Environment and Parks on matters related to the long term sustainability of the RLBH, including sustainability of Indigenous traditional use of and cultural connection to the herd. In developing its recommendations, the Board will consider both Indigenous knowledge and western science. At this time, the Indigenous representatives on the Board are selecting a co-chair among themselves. The Board is planning for its initial meeting to be held in early 2021.

The Aransas-Wood Buffalo whooping crane population continues to recover, with its long term growth rate averaging 4.4% (but with the estimated population size plateauing at 506 over the last few years).

³ The Government of Alberta has jurisdictional authority for the RLBH, and established the RLBH Technical Team in 2014. Members of the team include Government of Alberta, Parks Canada, Environment and Climate Change Canada, Mikisew Cree First Nation, Athabasca Chipewyan First Nation, Fort McKay First Nation, Fort McMurray Métis, Fort McKay Métis, Teck Resources Ltd., CNRL, and Northland Forest Products.

Coincident with increasing population size, the extent of breeding range within and around WBNP WHS has also been increasing, making it more difficult to monitor nest establishment and breeding success using traditional aerial survey methods.

A new monitoring approach that uses a combination of satellite imagery and aerial surveys is being implemented to improve monitoring efficiency and accuracy across the expanding breeding range. Satellite-based efforts were increased in 2020 in response to COVID-19 restrictions on field surveys. The EWC of the whooping crane breeding range completed in 2019 will inform modelling of the extent of suitable breeding habitat within the breeding range, and similar work is underway north of WBNP.

Environment and Climate Change Canada continues to monitor whooping crane migration through the oil sands region (OSR) by fitting cranes with satellite transmitters. This work is partly supported by the joint federal-provincial OSM program. In August 2019 and winter 2019-20, the Government of Canada and its United States partners captured and fitted additional transmitters on cranes, allowing further identification of landing and stopover sites used by migrating whooping cranes in the OSR. Transmitter deployment in WBNP was suspended in 2020 in response to COVID-19. The Government of Canada and its US partners are exploring opportunities to increase the numbers of transmitters deployed on the wintering grounds in 2020-21.

3. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value

Summary of Spring 2020 Flood, Peace-Athabasca Delta

Although ice jam floods occurred in 2014 and 2018, in Spring 2020 the PAD experienced its most significant flood event since the floods of 1996-1997.

Antecedent conditions, particularly the elevated late-winter / early-spring snowpack levels in the Peace and Athabasca River tributary headwaters, provided for the possibility of high flows and dynamic breakup events on these rivers. In light of the possibility of significant flooding in the delta, Parks Canada Agency convened operational staff from Alberta Environment and Parks, ECCC, BC Hydro and the Indigenous-led Community-Based Monitoring Programs⁴ active within the PAD to share information regarding monitoring, ice break-up and flood forecasting programs on the Peace, Slave and Athabasca rivers, and coordinate with monitoring of spring breakup in the PAD. These partners coordinated real-time monitoring efforts (including aerial observations, water level gauge readings, ice thickness measurements and remote cameras) and shared information on their programs and alerts in their areas, such as advisories of safety considerations.

In addition to the real-time flood monitoring, satellite imagery was acquired to document peak flood extent. Extensive imagery was acquired between April 28 and May 30 with a focus on the week of May 3 to May 10 (to

⁴ Led by Mikisew Cree First Nation and Athabasca Chipewyan First Nation.

capture peak extent). The 2020 spring flood extent was then compared to other satellite-based estimates of flood extent from 1996 to 2020.

Results from a preliminary analysis of satellite imagery suggest that the spring 2020 flood was the most extensive since the spring floods of 1996 and 1997. Flooding appears to have been most extensive within the Athabasca River sector of the Delta, central delta lakes and adjacent perched basins. Peace River early freshet flow was exceptionally large matching that of the extreme ice-jam flood of 1974. Driven by the high flow and by major ice runs from the Smoky River, a dynamic breakup front developed more than 750 km above the mouth of Peace River on April 21. The dynamic ice run stalled several times as it travelled downstream on the Peace River. A short ice jam (approximately 7.5 km long) formed downstream of the junction of the Peace, Slave, and Des Rochers Rivers on May 6. A portion of the incoming ice was diverted from the Peace River down the Rivière Des Rochers to Lake Athabasca. The absence of a longer and more persistent ice-jam extending from the lower Peace to the Slave River headwaters limited high water levels as well as overbank flow magnitude and duration. In this respect, the 2020 flood event was different from previous significant flood events (e.g. 1974, 1996, 1997 and 2014). In these earlier events, unlike in 2020, PAD flood extent was driven largely by major ice-jamming in the lower Peace - upper Slave River reach, resulting in extensive overbank flooding and replenishment of perched basins of the Peace sector of the PAD. Though such overbank flooding was limited in 2020, the flow magnitude was such as to cause significant hydraulic damming and flow reversals in distributary channels of Peace River, likely contributing to flooding of central-delta lakes and adjacent or connected basins.

Indigenous Knowledge holders have long recognized that extensive flooding of the PAD requires that the lower Peace and Athabasca Rivers experience dynamic break-up events (and associated flooding) at roughly the same time. In this case, the peak of lower Athabasca River break-up and flooding likely occurred on May 4-5th, while the peak on the lower Peace River likely occurred on May 5-6th. This overlap in timing likely contributed to the high water levels and flooding experienced across much of the delta in spring 2020.

This event provides a striking example of the system's characteristic variability, illustrating the possibility of either relatively wet or dry conditions on an annual basis while the long term trend toward drier conditions prevails. Indeed, relatively wet summer conditions and high summer flows on both the Peace and Athabasca Rivers have sustained exceptionally high water levels in the delta through to the start of the freeze-up period in fall 2020. Some Indigenous Knowledge holders characterize water levels in the delta as the highest ever seen, indicating that we have witnessed a spring-to-summer flood season of generational significance.

Also notable was the significant collaboration between jurisdictions and Indigenous partners to document the progression of break-up and resulting flood extent. These partners will be working together to produce a report summarizing the spring-to-summer flood event. Ongoing collaboration will support further examination and understanding of the nature of this event, including the near-term and long-term hydro-ecological impacts of it within the PAD, and will help to inform water management actions going forward.

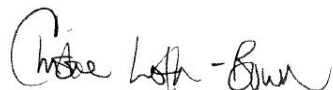
4. Potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridor or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.

Teck Resources Limited withdrew its application for the proposed Frontier Oil Sands Mine project on February 23, 2020. On February 25, 2020, the Canada's Minister of Environment and Climate Change terminated the environmental assessment of the proposed Project pursuant to *the Canadian Environmental Assessment Act, 2012*, at the request of Teck Resources Ltd.

5. Public access to the state of conservation report

The State Party authorizes the World Heritage Centre to make this report public on its website.

6. Signature of Authority



Christine Loth-Bown,
Vice President, Indigenous Affairs and Cultural Heritage, Parks Canada
and
Head of the Canadian Delegation to the UNESCO World Heritage Committee

Appendix A: WHC Decision 43 COM 7B.15

Decision: 43 COM 7B.15

The World Heritage Committee,

- 1. Having examined Document WHC/19/43.COM/7B.Add,*
- 2. Recalling Decisions **39 COM 7B.18** and **41 COM 7B.2**, adopted at its 39th (Bonn, 2015) and 41st (Krakow, 2017) sessions respectively,*
- 3. Commends the State Party for having developed a Strategic Environmental Assessment (SEA) and an Action Plan to underpin and guide an adequate management response for the protection of the Outstanding Universal Value (OUV) of the property, including its conditions of integrity;*
- 4. Also commends the State Party for its efforts and renewed commitment to fair, transparent and meaningful involvement of all legitimate stakeholders and rights-holders, including First Nations and Métis, in line with the UNESCO policy on engaging with indigenous peoples;*
- 5. Welcomes the creation of a protected area complex next to the property through the designation of provincial parks, and also encourages the federal and the provincial governments to allocate adequate resources to enable effective coordination and management for the property and the new protected areas, and to consider the designation of a buffer zone for the property;*
- 6. Also welcomes the threat analysis undertaken for the Ronald Lake Bison Herd, and requests the State Party to fully consider the findings of the ongoing assessment in the overall Species Recovery Strategy;*
- 7. Noting with concern the continued threat the Site C hydropower project and other major dams on the Peace River pose on the OUV of the property, also requests the State Party to provide a detailed update on the progress towards undertaking an environmental flow and hydrology assessment as recommended in the 2016 mission;*
- 8. Appreciates that the Alberta's tailings management framework is implemented and that a systematic risk assessment of the tailings ponds of the Alberta Oil Sands region is foreseen by the Action Plan, but notes with serious concern the potential and current cumulative impacts of 47 oil sands projects being considered besides the 37 already operating facilities;*
- 9. Also requests the State Party to conduct a systematic risk assessment of the tailings ponds of the Alberta Oil Sands as a matter of priority, and to submit it to the World Heritage Centre, for review by IUCN, in accordance with Paragraph 172 of the Operational Guidelines;*
- 10. Also notes with serious concern the downward trend confirmed by the SEA of the indicators for the property's OUV, considers that continued deterioration of the OUV could eventually constitute a case for inscription of the property on the List of World Heritage in Danger, in line with Paragraph 180 of the Operational Guidelines, therefore further requests the State Party to ensure that the SEA's recommendations are considered in future Environmental Impact Assessments (EIAs) and decision-making for relevant developments and that the Action Plan be implemented in a timely manner with adequate funding, in order to avert continued deterioration of the property's OUV;*

11. Further welcomes the significant funding already assigned to the implementation of the Action Plan, but also considers that more funding will likely be needed given the size of the property and complexity of issues to address;

12. Further encourages the State Party to take advantage of the pending Management Plan review for the property to further substantiate and amend the valuable information generated by the SEA and Action Plan processes and link action with adequate governance and resource allocation, including effective sharing of governance and management with indigenous peoples inside and outside of the property;

*13. Finally requests the State Party to submit to the World Heritage Centre, by **1 December 2020**, an updated report on the state of conservation of the property and the implementation of the above, including detailed information on the outcomes of continued assessments, mitigation and compliance measures, in relation to potential impacts of the Site C hydropower project and of other major dams on the Peace River on the OUV of the property, for examination by the World Heritage Committee at its 45th session in 2021.*

Appendix B: Action Plan Implementation Progress Tracking Table

Action Plan implementation progress, as of the time of writing of this report, is highlighted by each thematic area of the Action Plan in the following table. All actions identified in the Action Plan are presented, following the same format of the Action Plan's Appendix B - Implementation Schedule.

Implementation progress for each of the 142 actions is reported as "Completed" (green), "Underway" (yellow), "Not Started" (orange) or "Not Due Yet" (grey) as of December 1, 2020 and is presented against target dates for each action set out in the Action Plan.

Implementation Summary			
Completed Implementation is completed or initial implementation is completed with part of the action on-going.	Underway Implementation is underway and progress is being made.	Not Started Implementation has been delayed.	Not Due Yet Implementation is not yet due to begin.
25/142 = 18 %	56/142 = 39%	20/142 = 14%	41/142 = 29%

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
THEME: Strengthening Indigenous Partnerships with Wood Buffalo National Park (IP)			
OUTCOME: Improved relationships between WBNP and its Indigenous partners results in improved, cooperative management of the park that meets the interests of all parties.			
IP1: CMC will identify core areas of immediate interest regarding the management of the site, and adjust its process as required to effectively address these areas of interest.	PCA	Completed	2019
IP2: CMC will develop and adopt policies to meet the interests of all parties, in particular related to the staffing of Indigenous persons and a contracting policy to ensure that opportunities for Indigenous persons are enhanced.	PCA	Completed	2019
IP3: Increase capacity for park management and staffing in Fort Chipewyan, to respond to the pressures facing the Peace–Athabasca Delta.	PCA	Underway	2019
IP4: Develop and implement a training program for Wood Buffalo National Park staff designed to improve the evolving relationship with Indigenous communities.	PCA	Underway	2020
IP5: Continue engagement through bilateral processes between First Nations and Métis groups where these have been established.	PCA	Underway	Ongoing

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
IP6: Co-develop (with Indigenous groups) options for enhancing the profile of Indigenous content in WBNP and for recognizing Indigenous contributions to WBNP.	PCA	Not Started	Ongoing
THEME: Environmental Assessment (EA)			
OUTCOME: Ensure that the Outstanding Universal Value of the property is considered in environmental assessments where potential specific or cumulative impacts may occur on the OUV of WBNP, in particular in the Peace–Athabasca Delta.			
EA1: Refer the proposed Amisk Hydroelectric Project to an independent review panel.	IAAC	Completed	2016
EA2: Amend Guidelines for the Preparation of the Environmental Impact Statement for the Amisk Hydroelectric Project to direct consideration of potential effects of the project on the OUV of the park, including the PAD.	IAAC	Not Started	2020
EA3: Conduct an SEA on the potential of all developments to impact the Outstanding Universal Value of the Wood Buffalo National Park World Heritage Site, and submit to the World Heritage Centre.	PCA	Completed	2018
EA4: Submit the SEA to the Joint Review Panel for the Teck Frontier Oil Sands Mine Project for consideration.	IAAC	Completed	2018
EA5: Amend the Joint Review Panel Agreement for Teck Frontier to mandate the Panel to consider and report on the potential environmental and cumulative effects of the project on the OUV of the World Heritage Site, including the PAD.	IAAC, AER	Completed	2017
EA6: Evaluate the potential effects of the Frontier Project on the OUV of the park and provide assessment to the Teck Frontier Joint Review Panel for its consideration in the environmental assessment.	IAAC	Completed	2018
EA7: Ensure that all current and future environmental assessment reviews conducted pursuant to federal legislation consider the specific and cumulative impacts on the OUV of WBNP and are aligned with the IUCN World Heritage Advice Note on Environmental Assessment and World Heritage, to the extent possible.	IAAC	Underway	2023, + ongoing
Goal: Continue to work with Indigenous communities and stakeholders on Lower Athabasca Region environmental management frameworks.			
EA8: Continue to work with Indigenous communities and stakeholders on the Aboriginal navigation component of the Alberta’s Lower Athabasca Region Surface Water Quantity Management Framework for the Lower Athabasca River. This will include further development of the Aboriginal Navigation Index.	AB, ECCC (OSM)	Underway	2020
EA9: Develop a work plan to address ecological knowledge gaps as identified in the Lower Athabasca Region Surface Water Quantity Management Framework for the Lower Athabasca River.	AB, ECCC (OSM)	Underway	2020

December 1st, 2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EA10: Conduct an analysis of Oil Sands Monitoring Program water quality stations and parameters in the oil sands region and including, where applicable, the Peace–Athabasca Delta to assess changes in water quality relative to limits of change and considering Indigenous community-based monitoring. This would be conducted for those elements that fall within the programs’ scope and mandate and respecting the program’s governance structure.	AB, ECCC (OSM)	Underway	2020
EA11: Integrate the findings of Oil Sands Water Quality analysis to inform updates to the Surface Water Quality Management Framework.	AB, ECCC (OSM)	Not Due Yet	2020
EA12: Complete development of a cumulative effects environmental monitoring framework for the Oil Sands Monitoring Program under the programs’ scope, mandate and governance structure	AB, ECCC (OSM)	Underway	2023
THEME: Conservation Area Connectivity (CC)			
OUTCOMES: Improved connectivity for wildlife and supporting processes; Increased ecological integrity and resiliency of the Outstanding Universal Value of Wood Buffalo National Park World Heritage Site; Improved connectivity for the protection and exercise of Aboriginal and treaty rights; Strengthened relationships with Indigenous partners through respectful application of science-based and Indigenous Knowledge to conservation planning and management.			
Goal: Within individual jurisdictions, establish buffer zones around WBNP through the establishment of adjacent protected and conserved areas.			
CC1: Establish five new and expanded conservation areas under the Lower Athabasca Regional Plan, adjacent to WBNP, to increase functional connectivity for OUV within WBNP.	AB	Completed	2018
CC2: Develop cooperative management arrangements with Indigenous communities and organizations to help support traditional land use and cultural values, including the exercise of rights recognized under section 35 of the Constitution Act, 1982, for the five new and expanded wildland provincial parks under the Lower Athabasca Regional Plan.	AB	Underway	2020
CC3: Advance (through discussions with Indigenous communities and takeholders) the proposal for an additional conservation area on the land base known as the Biodiversity Stewardship Area immediately south of WBNP.	AB	Completed	2018
CC4: Following months of collaborative discussions with Indigenous groups, industry and other stakeholders, the Government of Alberta to consult on the creation of the Biodiversity Stewardship Area, which will designate the area as a wildland provincial park (protected area) from a multiple use land base with industrial tenure. The proposed protected area is about 166,110 hectares located directly south of WBNP.	AB	Completed	2019
CC5: Develop cooperative management arrangements with Indigenous communities for management of the BSA that supports WBNP OUV (e.g., bison and watershed protection), as well as Indigenous cultural and traditional values, including the exercise of rights recognized under section 35 of the Constitution Act 1982.	AB	Not Started	2020

December 1st, 2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
CC6: Integrate an Indigenous Guardian Program to support Indigenous Stewardship of the five new and expanded conservation areas under the Lower Athabasca Regional Plan, as well as the Biodiversity Stewardship Area.	AB	Not Started	2023
CC7: Advance conservation priorities under “Healthy Lands, Healthy People: Government of Northwest Territories: Priorities for Advancement of Conservation Network Planning – 2016 – 2021”.	NWT	Underway	Ongoing
CC8: Advance regional land use planning processes in areas surrounding WBNP.	AB, NWT	Underway	2023
CC9: Enhance communication and explore opportunities for closer collaboration particularly under the Pathway to Canada Target 1 initiative.	Canada, AB, NWT	Underway	2023
CC10: In association with the Pathway to Canada Target 1 support efforts to establish new tools for conservation ⁴⁴ that contribute to conservation area connectivity in the WBNP region.	Canada, AB, NWT	Underway	2023
CC11: Consolidate Indigenous and scientific information on the habitat and dispersal requirements for key species through extensive literature review and community led workshops.	PCA	Underway	2019
Goal: Determine the ecological functional needs of the elements of OUV of WBNP WHS as they relate to conservation area connectivity.			
CC12: Acquire existing data related to species occurrence and remote sensing for spatial analysis and mapping.	PCA	Underway	2019
CC13: Identify and confirm information gaps and identify plans to fill these gaps.	PCA	Underway	2019
CC14: Conduct analysis of assembled data and apply habitat and movement information acquired during workshops to develop a series of species-specific, landscape-scale, habitat suitability and connectivity maps.	PCA	Underway	2020
CC15: Peer review and gather feedback on spatial models. Peer review will include follow-up workshops to identify accuracy, strengths and weaknesses of resulting maps.	PCA	Not Started	2020
CC16: Generate a series of map packages for subsequent communications and planning purposes that describe the results of the modelling process and highlight habitat and movement needs for key species throughout the WBNP region.	PCA	Not Started	2020
Goal: Identify potential gaps necessary for the maintenance of OUV that can guide future conservation planning and/or management.			
CC17: Conduct workshop on spatial priorities for conservation including objectives for a gap analysis on areas in and adjacent to WBNP.	PCA	Not Started	2020
CC18: Undertake landscape gap analysis and spatial conservation prioritization exercise using current methods and tools (i.e., Marxan).	PCA	Not Started	2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
CC19: Produce maps and communication products that provide results of gap analysis and present design options for contributing to a regional network of protected and conserved areas, including a buffer zone adjacent to WBNP.	PCA	Not Started	2020
THEME: Tailings Pond Risk Assessment (TP)			
OUTCOME: Tailings ponds are constructed, managed and maintained to limit impacts to the Athabasca River, and new and legacy tailings volumes are reclaimed in a timely manner, so that the risk of tailings ponds to the PAD is minimized.			
TP1: Ongoing implementation of the Tailings Management Framework to promote progressive reclamation, accelerate tailings treatment and improve the water management system. Continue to support existing forums for including indigenous perspectives on advancement of this work. Consider results of the tailings risk assessment study (TP2) in future review and amendment of the Tailings Management Framework and Directive 085.	AB	Underway	2023
TP2: Pursue a systematic tailings risk assessment by collaborating with Indigenous peoples, national/international experts, and industry to develop a landscape model considering tailings reclamation, hydrology, withdrawals, climate change, seepage, and cumulative effects. This is within the scope of the Oil Sands Monitoring Program and would be conducted through existing work planning and governance processes.	AB, ECCC (OSM)	Not Due Yet	2022
TP3: Amend the Water Ministerial Regulation, ensuring major water management infrastructure and tailings dams are safe.	AB	Completed	2019
TP4: Provide regulatory oversight to ensure tailings dams are safe and managed appropriately by operators.	AB	Underway	2023
TP5: Minimize fluid tailings accumulation by ensuring that fluid tailings are treated and reclaimed progressively during the life of a project and all fluid tailings associated with a project are ready to reclaim within 10 years of end of the mine life of that project. Supported through ongoing work undertaken as part of tailings management implementation.	AB	Underway	2023
TP6: Establish project-specific target, triggers and limit for new fluid tailings. Supported through ongoing work undertaken as part of tailings management implementation.	AB	Underway	2023
TP7: Develop plans to reduce legacy tailing volumes to a ready-to-reclaim state by end of mine life.	AB	Underway	2023
TP8: Tailings ponds are designed, constructed, operated, maintained, and decommissioned safely. Supported through ongoing work undertaken as part of tailings management implementation.	AB	Underway	2023
TP9: Conduct ambient environmental monitoring to inform a risk assessment on changes to environmental condition. This is within the scope of the Oil Sands Monitoring Program and would be conducted through existing work planning and governance processes.	AB, ECCC (OSM)	Underway	2023

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
TP10: Establish Oil Sands Process Affected Water Science Team to provide credible scientific information to inform government and regulatory bodies on potential process water treatment and release. Create additional Science Teams as needed to support implementation of the Tailings Management Framework.	AB	Underway	2020
THEME: Environmental Flows and Hydrology (EFH)			
OUTCOMES: Ecological and Hydrological Integrity – Water quantity improvements, including variability, sustain ecological functioning and integrity of the PAD to support the OUV. Exercise of Aboriginal and treaty rights – Water quantity improvements sustain healthy and abundant traditional resources and Indigenous ways of life in the PAD. Informed Decision-Making – Improved baseline data/knowledge and comprehensive environmental flows assessments inform decision-making related to the ecological and hydrological integrity of the PAD.			
Goal: To establish renewed and effective partnerships through a cross-jurisdictional and Indigenous governance team to guide and inform management actions toward achieving the desired hydrology outcomes for the PAD and WBNP.			
EFH1: Convene and resource an FPTI Committee and Secretariat to oversee implementation of the EFH portion of the WBNP Action Plan.	ECCC	Underway	2020
EFH2: Develop FPTI Committee Terms of Reference	ECCC	Underway	2019
EFH3: Establish and task project teams to implement key actions (e.g., structural alternatives project team; target/objective-setting) outlined for the EFH theme. Note that timelines will be variable as the needs for various project teams change.	ECCC	Underway	2023
EFH4: Establish clear lines of communication and linkages to existing processes such as the Mackenzie River Basin Board, WBNP Cooperative Management Committee, Alberta–NWT Bilateral Management Committee, Alberta Watershed Planning and Advisory Councils, etc.	ECCC	Underway	2019
EFH5: Implement a progress reporting mechanism to Federal, Provincial, Territorial, and Indigenous governments.	ECCC	Underway	2020
EFH6: Communicate the findings of assessments, research, and modelling with stakeholders and Indigenous communities.	ECCC	Underway	2023
Goal: Identify and describe the areas and conditions where changes to water quantity would support the achievement of the Outcomes for ecological and hydrological integrity & exercise of Aboriginal and treaty rights			
EFH7: Document priority locations in the PAD (Figure 6) where ecological integrity is impacted and intervention is required, as well as areas from currently documented sites of navigational and/or cultural importance in the PAD, and identify which of these is appropriate for early action and monitoring for trends.	PCA, Indigenous Groups	Completed	2019
EFH8: Identify the key objectives for the selected early action locations.	PCA, Indigenous Groups	Completed	2019

December 1st, 2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EFH9: Initiate feasibility studies to assess what actions could be implemented to make progress toward these objectives, as described in actions EFH 32-33 (artificial ice dam) and EFH 56-57 (control structures).	PCA, Indigenous Groups	Completed	2019
EFH10: Undertake Indigenous use interviews to identify priority navigation routes and pinch points for all communities that travel within WBNP for the exercise of Aboriginal and treaty rights, where not currently documented.	PCA, Indigenous Groups	Not Due Yet	2022
EFH11: Undertake Indigenous use interviews to identify areas and timing of key contemporary and historic cultural importance including, but not limited to, medicine, hunting, fishing, gathering, spiritual and cultural practice.	PCA, Indigenous Groups	Not Due Yet	2022
EFH12: Identify key areas of WBNP where water quantity changes are required to restore ecological integrity.	PCA, Indigenous Groups	Underway	2020
EFH13: Document the information from all above activities and summarize the specific objectives in a final report(s).	PCA	Not Due Yet	2022
EFH14: Over time, using adaptive management (see section 7.1.2 in the SEA), learn through action, monitoring, and modelling what water quantity change supports achievement of these objectives.	FPTI CTTE	Not Due Yet	2023, ongoing
Goal: Set SMART water quantity targets and indicators toward achieving the objectives identified above.			
EFH15: Assess use of existing indicators developed with Indigenous expertise, such as by the Mackenzie River Basin Board, the NREI and NRBS, those in place in WBNP through Parks Canada and Community-Based Monitoring programs.	ECCC	Not Started	2019
EFH16: Identify gaps in knowledge for indicators and targets and develop a plan to address these gaps.	ECCC, PCA	Not Started	2019
EFH17: In conjunction with ‘objectives’ interviews, conduct interviews of elders and land users to inform development of Indigenous SMART targets and rights-based indicators for Indigenous use objectives identified above (e.g., abundance of harvested species and/or traditional use plants; navigability of priority routes).	Indigenous Groups	Not Due Yet	2022
EFH18: Informed by the objectives and baseline hydrological conditions identified below, develop SMART targets (or target ranges or thresholds) and indicators to assess: <ul style="list-style-type: none"> · progress toward intermittent high elevation recharge of the PAD’s perched basins (including key sites of Indigenous cultural importance within these perched basins, if applicable) · progress toward low elevation recharge and connectivity (including key sites of Indigenous cultural importance) · navigability of seasonal priority routes. 	PCA	Not Due Yet	2023

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EFH19: Make the targets and indicators available via the Knowledge Hub (see EFH 69-75), with regular reporting.	PCA, Indigenous Groups	Not Due Yet	2023
Goal: Establish a monitoring regime that tracks the trend of indicators identified above across the extent of WBNP and the PAD and over time that evaluates the effectiveness of management actions, building on existing monitoring programs where possible.			
EFH20: Assess and inventory the historic and ongoing monitoring within WBNP.	ECCC, PCA, CBM	Completed	2019
EFH21: In coordination with actions taken pursuant to Monitoring and Science theme, identify gaps in the types and location of monitoring within WBNP required to support monitoring of: a. indicators, including navigability, b. baseline / reference parameters, c. parameters required for model operation and validation, and d. water management actions.	FPTI CTTE	Underway	2023
EFH22: Make monitoring data available, to local communities and decision-makers in a timely and transparent manner.	FPTI CTTE	Not Due Yet	2023
Goal: Establish protocols for, and identify circumstances under which, a strategic release of water from the Williston Reservoir behind the W.A.C. Bennett Dam could enhance an ice jam flood event within WBNP to encourage flooding of the PAD, including its perched basins, while minimizing unwanted upstream and downstream risks.			
EFH23: Create a protocol for a proposal from the Government of Alberta for a test flow (a release of water from the W.A.C. Bennett Dam) to influence an ice jam event in the PAD similar to the 1996 request.	AB, BC, BC Hydro	Underway	2020
EFH24: Assemble currently available data and information that could indicate if a test flow has a reasonable chance of being successful while minimizing the risk of unintended negative consequences.	AB, BC, BC Hydro	Not Started	2019
EFH25: Identify gaps in knowledge, review assembled information and confirm gaps using a workshop format, and develop plans to fill knowledge gaps	AB, BC, BC Hydro	Underway	2019
EFH26: Communicate with all stakeholders about management actions within the Peace–Athabasca Delta System to ensure risks are understood and acceptable.	AB, BC, BC Hydro	Not Due Yet	2021
EFH27: Implement the protocol as opportunities arise, including water release, if supported.	AB, BC, BC Hydro	Not Due Yet	2023 (after above steps completed)

December 1st, 2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EFH28: For each particular test flow, establish assessment criteria and appropriate monitoring.	AB, BC, BC Hydro	Not Due Yet	2023 (after above steps completed)
EFH29: Conduct analysis, modelling, and monitoring related to addressing knowledge gaps with the purpose of identifying more specific parameters that could be used to inform Alberta’s request for a test flow release.	AB, BC, BC Hydro	Not Due Yet	2021, and ongoing
EFH30: Update the protocol for a request from Alberta for a test flow release to influence an ice jam event in the PAD with more specific parameters, or update based on lessons learned from any subsequent ice jams and/or test flows.	AB, BC, BC Hydro	Not Due Yet	2022, and ongoing
Goal: To enhance spring flooding using artificial ice damming within WBNP.			
EFH31: Establish ice dam project team.	PCA, Indigenous Groups	Completed	2020
EFH32: Review past attempt to create an ice dam and related recommendations, and confirm one or more locations where an ice dam(s) could support the desired outcomes	Project team	Completed	2020
EFH33: Establish goals and objectives and develop a plan (i.e., Terms of Reference) to install an ice dam(s) to meet goals and objectives.	The ice-dam concept was considered pursuant to EFH 56 - 57 discussions; project partners determined that the concept would not meet anticipated goals / objectives. These actions will not be undertaken.		
EFH34: Obtain required equipment (spray ice pump(s), monitoring equipment, etc.), establish field team to implement plan.			
EFH35: Implement plan (given necessary environmental pre-conditions are met).			
EFH36: Monitor / document implementation and results, assess results against objectives, refine plan for implementation in future years. Assess the potential for ice dams to support improved ecological and hydrological integrity in other parts of the PAD.			
Goal: To enhance monitoring and to improve the assessment of current and future water quantity conditions in the Peace and Athabasca River Basins.			
EFH37: Assess the current state of knowledge and monitoring within the PAD.	ECCC	Complete	2019
EFH38: Assess the current state of knowledge and monitoring within the Peace and Athabasca River Basins.	FPTI CTTE	Underway	2020
EFH39: Develop a common understanding of the complex hydrological function of the Peace and Athabasca River Basins and the PAD.	FPTI CTTE	Underway	2020
EFH40: Conduct a water balance assessment of the Athabasca and Peace River basins.	FPTI CTTE	Not Started	2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EFH41: Determine the appropriate reference time point and scale to define baseline(s) conditions, including: pre-development, present conditions, naturalized.	FPTI CTTE	Not Started	2020
EFH42: Determine if appropriate baseline indicators are being monitored and identify gaps.	FPTI CTTE	Not Started	2020
EFH43: Develop plan to gather information to fill gaps in western and Indigenous Knowledge.	FPTI CTTE	Not Started	2020
EFH44: Undertake elder interviews (in conjunction with other interviews) to inform the pre-regulation and pre-development state of hydrology within the Peace–Athabasca River Basins and Delta.	Indigenous Groups	Not Started	2020
EFH45: Ensure identified hydrological indicators are being monitored at appropriate spatial and temporal scale. Integrate with target and indicator monitoring toward objectives wherever possible.	FPTI CTTE	Not Due Yet	2022
EFH46: Communicate findings from baseline assessment to modelling work and to decision-makers to inform decisions related to future development or anagement action.	FPTI CTTE	Not Due Yet	2023
EFH47: Periodically review and update baseline(s) as information becomes available and share results.	FPTI CTTE	Not Due Yet	2025, and ongoing
Goal: To identify, modify and, if necessary, produce environmental flows assessment models that incorporate state-of-the-art understanding of localized effects of the past, ongoing, and projected climate changes, to inform future and ongoing management actions that could impact WBNP.			
EFH48: Hold a workshop to facilitate a common understanding of the influence of oil sands withdrawals on Indigenous navigability.	ECCC, AB, MCFN	Not Started	2019
EFH49: Inventory and assemble relevant currently available hydrological and geomorphological data, existing models (e.g., Athabasca River Basin Initiative and ongoing work under LARP for the Athabasca River, AEP forecast model of the Peace River, Mackenzie River Basin Hydraulic Model, data from Community-Based Monitoring) and information for the Peace and Athabasca Rivers and tributaries and include this inventory (and data, as appropriate) in the knowledge hub.	ECCC	Underway	2019
EFH50: Hold a workshop(s) with science-based and Indigenous Knowledge experts to scope the variables and data required to produce: (1) a simplified (or geographically restricted) model(s) with existing data to predict and understand the effects of small-scale management options being considered. (2) a holistic, basin-wide, multi-jurisdictional environmental flows model.	ECCC	Underway	2019
EFH51: Review existing models and modelling results to identify options to achieve the identified objectives for Indigenous navigability and ecological outcomes in WBNP.	FPTI CTTE	Not Started	2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
EFH52: Identify gaps and undertake a plan to address these gaps, including potential field studies, and develop finer-scale climate change scenarios for the longer-term holistic model, as requested in Recommendation 3.	ECCC	Not Due Yet	2023
EFH53: Develop a holistic, basin-wide, multi-jurisdictional model to the highest international standards to understand hydrological, ecological, and Indigenous use relationships in light of current and future climate change and cumulative effects of withdrawals and regulation.	FPTI CTTE	Not Due Yet	2023
EFH54: Make the model(s) and requisite data available to inform future management actions or decisions in the Mackenzie basin that could impede or support the achievement of the PAD objectives and outcomes.	FPTI CTTE	Not Due Yet	2025
EFH55: Update the model framework as data become available through study and management actions and share results.	FPTI CTTE	Not Due Yet	2025, and ongoing
Goal: Strategically-placed short- and/or long-term water management control structure(s) within the PAD create a local hydrological regime that supports the ecological functioning and Indigenous use in identified target areas.			
EFH56: Assemble and review overview of the existing data and information related to past, current, or potential control structures in the PAD.	FPTI CTTE	Completed	2019
EFH57: Obtain new information related to possible short-term or small-scale options to improve the hydrological regime in the PAD.	FPTI CTTE	Completed	2019
EFH58: Pending feasibility assessment results and consultation with local communities, select the most appropriate action and complete the full design for one or more pilot control structures. <ul style="list-style-type: none"> · Determine appropriate Indigenous and hydro-ecological indicators and monitor for effects of the control structure(s) · Learning from monitoring and implementation results, adjust timing and length of installation and/or site of installation 	FPTI CTTE	Underway	2020
EFH59: Install one or more pilot control structures and/or repair existing weirs, as designed.	PCA, AB	Not Due Yet	2023
EFH60: Monitor and adapt installation as required to progress toward objectives.	FPTI CTTE	Not Due Yet	2023
EFH61: Identify remaining gaps in knowledge, including linkages between PAD with current or future structural scenarios, varying flow input, and impacts upstream and downstream.	FPTI CTTE	Not Due Yet	2021
EFH62: Longer-term structural options will be assessed in the cumulative framework to test interactions with other management options. Continued monitoring of pilot structures, existing structures and ice damming efforts will provide key information.	FPTI CTTE	Not Due Yet	2023

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
Goal: Identify and assess the risk of alternative management options to provide recommendations toward achieving desired flows and water levels			
EFH63: Using or adapting models built and knowledge obtained from environmental flows assessments and early actions, assess the predicted impacts of potential management options, singly or in combination.	FPTI CTTE	Not Due Yet	2021
EFH64: Select a set of priority scenarios to undertake more detailed evaluation including assessing what impact each has on the achievement of key selected ecological and traditional use objectives/outcomes (using indicators as identified above, such as muskrat).	FPTI CTTE	Not Due Yet	2023
EFH65: Assess the impact of priority scenarios on interests upstream and downstream of the PAD.	FPTI CTTE	Not Due Yet	2023
EFH66: Impact assessment and detailed analyses of desired management options.	Jurisdictional authority	Not Due Yet	2024
EFH67: Recommend the preferred management approach(es) to the relevant jurisdictional authorities that could support achieving the ecological and traditional use EFH objectives.	FPTI CTTE	Not Due Yet	2024
EFH68: Continue to monitor and adapt toward achieving the desired outcomes.	FPTI CTTE	Not Due Yet	2024, and ongoing
Goal: To establish a Knowledge Hub to make Peace–Athabasca Delta information and data from science-based and Indigenous Knowledge sources more easily accessible.			
EFH69: Complete a user-needs survey to assess what type of information and presentation the various users require or want.	ECCC	Completed	2019
EFH70: Establish an appropriate knowledge hub platform, informed by similar existing resources (e.g., Mackenzie Data Stream) that targets needs without creating redundancies.	ECCC	Underway	2020
EFH71: Establish data sharing protocols.	FPTI CTTE	Underway	2023
EFH72: Develop a basic ethics and data sharing agreement that can be adapted as needed.	FPTI CTTE	Underway	2019
EFH73: Update knowledge hub routinely with monitoring and study data from within WBNP.	FPTI CTTE	Not Due Yet	2023
EFH74: Establish communication mechanisms and frequency to exchange information with (a) communities, (b) jurisdictions and governments, and (c) stakeholders and the general public.	FPTI CTTE	Underway	2019
EFH75: Regularly review and evaluate the effectiveness of the Knowledge Hub and ensure links are up to date.	FPTI CTTE	Not Due Yet	2023

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
THEME: Monitoring and Science (MS)			
OUTCOME: An Integrated PAD Research and Monitoring program (using both WS and IK), supported by a community-based research and monitoring hub, is implemented to detect cumulative effects on the PAD and to generate information that informs land-use management and regulatory decision making.			
MS1: Coordinate PAD Research and Monitoring Workshops; develop and implement integrated PAD Research and Monitoring Program.	PCA, ECCC (incl. OSM)	Underway	2023
MS2: Initiate annual PAD Symposium to share findings of PAD-related science and monitoring work underway by various organizations.	PCA	Underway	2020
MS3: Develop targets, indicators and specific objectives (using science-based and Indigenous Knowledge) required to evaluate the status and trend of the elements of OUV of WBNP.	PCA, ECCC (incl. OSM)	Underway	2020
MS4: Undertake Wetland Classification of the PAD and of WBNP to support ecological assessments of the PAD and other wetlands within WBNP.	PCA	Completed	2019
MS5: Obtain high-resolution digital terrain imagery of the PAD.	PCA, ECCC (incl. OSM)	Completed	2020
MS6: Advance the concept of a PAD monitoring hub to support better integration of science-based and Indigenous Knowledge of the PAD.	ECCC	Underway	2020
MS7: Develop periodic State of the PAD reports.	PCA, ECCC (incl. OSM)	Not Due Yet	TBD
MS8: Expand invasive species monitoring and management to the Salt Plains as part of ongoing vegetation monitoring in WBNP WHS.	PCA	Underway	2019
MS9: Continue to monitor environmental indicators in the PAD through the Oil Sands Monitoring Program under the programs' scope, mandate and governance structure. Ensure this monitoring and reporting is coordinated with and leveraged as needed with the actions throughout this plan.	AB, ECCC (OSM)	Underway	2023
THEME: Wildlife and Habitat Conservation (WH)			
OUTCOME: Support the recovery of Wood Bison and Whooping Crane within and beyond WBNP through the implementation of recovery actions and species management in collaboration with Indigenous groups and using Indigenous Knowledge.			
WH1: Complete the Recovery Strategy for Wood Bison.	ECCC	Completed	2019
WH2: Undertake an Imminent Threat Assessment for Ronald Lake and Wabasca Wood Bison Herds.	ECCC	Completed	2019

December 1st, 2020

ACTION	LEAD ORGANIZATION	PROGRESS @ December 1, 2020	ANTICIPATED COMPLETION DATE, AS PER ACTION PLAN
WH3: Launch a collaborative multi-stakeholder bison disease management planning group to examine options and coordinate activities aimed at eliminating the risk of bovine brucellosis and tuberculosis transmission.	PCA	Not Started	TBD
WH4: Develop one or more Action Plans for Wood Bison.	ECCC	Not Due Yet	2022
WH5: Begin work to identify critical habitat for Wood Bison.	ECCC	Underway	2021
WH6: Develop a cooperative management arrangement with Indigenous communities, to help support traditional land use and cultural values, including the exercise of rights recognized under section 35 of the Constitution Act 1982, on the management of the Ronald Lake Bison Herd in conjunction with the BSA and adjacent conservation areas.	AB	Underway	2023
WH7: Develop an Indigenous Knowledge Research Process to complement the Ronald Lake Bison Herd Technical Team.	AB	Underway	TBD
WH8: Continue to monitor the nesting area of the Whooping crane within the WBNP and its wider ecosystem.	ECCC, PCA	Underway	2023
WH9: Conduct high-resolution remote sensing to assess the extent and use of Whooping Crane breeding habitat.	ECCC, PCA	Underway	2019
WH10: Update critical habitat identification for Whooping crane.	ECCC, PCA	Not Due Yet	2022
WH11: Identify landing and stopover sites used by Whooping Cranes within the oil sands region during migration.	ECCC, AB	Underway	2019