



**BC-MT MEMORANDUM OF UNDERSTANDING
TRANSBOUNDARY FLATHEAD WORKPLAN—AQUATIC ADAPTATION FOCUS**

April 30th – May 1st, 2015 | Cranbrook, British Columbia
Provincial Government Offices, 1902 Theatre Road

Meeting Objectives / Desired Outcomes

- 1. PAST—Review past efforts under the MOU**
 - a. Mandates, sideboards provided by the MOU
 - b. September, 2012 MOU Technical Team meeting
 - c. Aquatic Adaptation Framework
 - d. May, 2014 MOU Executive Committee meeting and out-comes
- 2. PRESENT—Focus on transboundary collaborations in science and management**
 - a. Review of existing transboundary science and management partnerships, including key fish, wildlife, and ecosystem initiatives in the Transboundary Flathead
 - b. Discuss jurisdictional barriers and opportunities related to transboundary collaborations
 - c. Discuss interface with regional initiatives (Forest Plan Revision, CMP, GNLCC Connectivity initiative, etc)
- 3. FUTURE—Next Steps**
 - a. Opportunities for science and management applications
 - b. Future projects—planned and/or possible—with emphasis on collaborative efforts
 - c. Discuss next steps for this technical working group, including setting next meeting

IMPLEMENTING THE BC-MT MOU: APRIL 6, 2015: FISHERIES/AQUATICS

10:00	Scott Bischke Facilitator	Welcome - Overview of Meeting Agenda
10:15	John Krebs BC FLNRO	Introductions – welcome from B.C.
10:30	Erin Sexton University of Montana	Overview of MOU and Work to Date Framework for the Flathead MOU and Transboundary Flathead Work Plan

11:00	Representative From Each Agency or Entity	Jurisdictional Synopsis - Round Robin Each agency will have 3 minutes to update on Top Priorities in the Transboundary Flathead
11:30	Clint Muhlfeld/Ric Hauer USGS /U Montana	Vulnerability assessments for Bull trout and Westslope cutthroat: Implications for Adaptive Management
12:30	Lunch	Provided on site – hosted by the Province of B.C.
1:00	Matt Heller/Greg Watson USFWS	NetMap Watershed Assessment for the Transboundary Flathead – Analysis of road surface erosion and other watershed attributes
1:30	Amber Steed MT FWP	Shared Migratory Salmonids - spawning habitat and population status monitoring
2:00	Heather Lamson	Understanding Westslope Cutthroat Hybridization Risks in Southeast B.C.
2:30	Chris Downs Glacier National Park	Developing a Collaborative Fisheries Conservation and Management Program in Glacier National Park: Where we are now and where we are going
3:00	Caryn Miske FBC	Aquatic Invasive Species Cross-border strategy for monitoring, prevention and rapid response
3:30	Break	
3:45	Scott Bischke Facilitator	Discussion 1. Opportunities for collaborative management; referencing the Aquatic Adaptation Framework 2. Opportunities for future collaborative projects 3. Next steps
5:00	Adjourn	

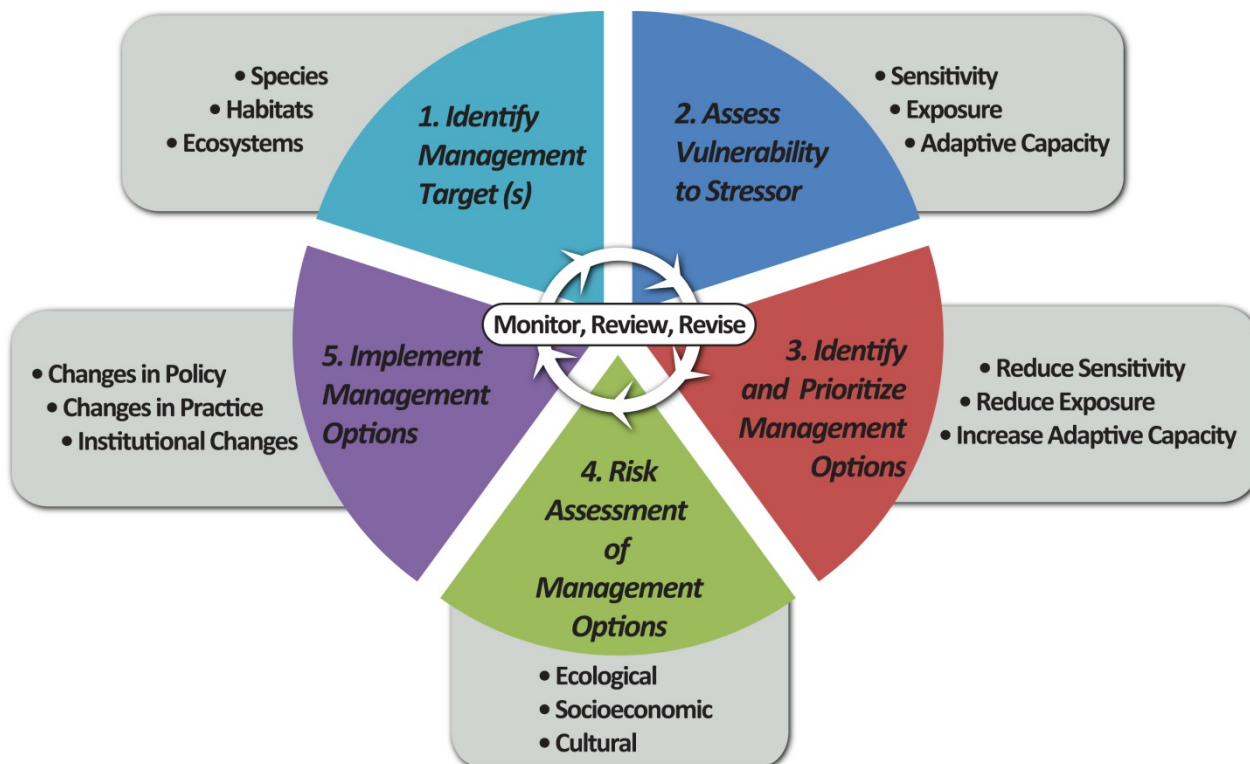
IMPLEMENTING THE BC-MT MOU: MAY 1st, 2015: TERRESTRIAL/WILDLIFE

8:30	John Krebs BC FLNRO	Welcome and Introductions
8:45	Scott Bischke Facilitator	Review discussion and out-comes from Day 2 Overview of agenda
9:00	Erin Sexton University of Montana	Overview of MOU and Work to Date Framework for the Flathead MOU and Transboundary Flathead Work Plan (brief summary for new participants)
9:15	Representative From Each Agency or Entity	Jurisdictional Synopsis - Round Robin Each agency will have 3 minutes to update on top priorities for wildlife in the Transboundary Flathead
9:30	John Krebs/ Jim Williams	Joint BC/FWP wildlife research and management - brief overview - Tara Szkorupa & Tim Thier
10:15	Break	
10:30	Jim Williams	Glacier National Park Mountain Goat Project; Update and Future Needs
11:00	John Krebs/Jim Williams BC FLNRO/MT FWP	GNLCC Transboundary Wolverine Project Up-date - 2015 4-state WAFW Wolverine Proposal
11:30	Taye Ayele BC FLNRO	Cumulative Effects Pilot Project – Elk Valley Project Up-date (Tentative)
Noon	Lunch	Eat out locally
1:00	Mike Knapik BC FLNRO	Nature Conservancy Canada – B.C. MOU Results (W Screech Owl, Checkerspot, etc)
1:30	Garth Mowat BC FLNRO	Long-term Grizzly bear research in the Flathead
2:00	Jim Williams/Tim Their MT FWP	Up-date on Management of Wolves, Sharp-tail Grouse and Transboundary Elk
2:30	Scott Bischke Facilitator	Discussion 1. Opportunities for collaborative management 2. Opportunities for future collaborative projects 3. Next steps
5:00	Adjourn	

MOU Goals



Cultural, Biological, Economic



BC-MT Memorandum of Understanding and Cooperation on Environmental Protection, Climate Action and Energy

Transboundary Flathead Workplan

Approved April 15, 2012

Background

The Flathead River, which originates in British Columbia and flows south into Montana, is considered one of North America's wildest rivers. Its water quality is pristine, it harbors abundant and diverse aquatic life, and it sustains the full complement of mid- to large carnivores that have thrived there since the 1800s. As such, in February 2010, the governments of British Columbia and Montana signed a Memorandum of Understanding and Cooperation on Environmental Protection, Climate Action and Energy in recognition of the high value of the natural resources in the Transboundary Flathead River Basin (US North Fork).

Recognizing that the Flathead River Basin includes Waterton-Glacier International Peace Park, a UNESCO-designated World Heritage Site and Biosphere Reserve, this unique area merits special protection from risks posed by gas, oil, and mineral development. The MOU outlines a framework for the signatories to work together with Federal, State and Provincial, Tribal and First Nation partners in the United States and Canada on: 1) environmental protection, 2) climate action and 3) renewable and low carbon energy. This MOU resolves three decades of negotiations over impacts of potential mining and oil and gas development.

In 2011, Secretary of the Interior Ken Salazar appointed, and the government of British Columbia embraced, the Great Northern Landscape Conservation Cooperative (GNLCC), as a vehicle to implement the partnership to accomplish the goals set out in the MOU, while avoiding overlap and duplication of effort.

The following framework was reviewed and approved by the Flathead Executive Workgroup on April 15th, 2012.

Five Year Workplan

This Workplan includes three provisions of the MOU, with action items for each provision, and an additional provision (D.) aimed at establishing benchmarks for success and institutionalization of the Framework.

A. COOPERATE ON FISH AND WILDLIFE MANAGEMENT (MOU SECTION I. PARAGRAPH B.)

In collaboration with Ktunaxa Nation and Confederated Salish and Kootenai Tribes, develop baseline resource information, identify potential opportunities to collaborate on fish and wildlife management, and, where possible, coordinate provincial and state management activities in the transboundary region. Areas for consideration include: noxious weed management; management of alien invasive species; and management efforts related to specific fish and wildlife.

2012 Action Items

Action Item A1: Participate in an executive-level working group among the Department of Interior, Department of Agriculture, State of Montana, Canadian Federal government,

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the Province of British Columbia, Confederated Salish and Kootenai Tribe and Ktunaxa First Nation to facilitate and promote commitments of the MOU (DOI lead).

I FISHERIES

2012 – 2013 Action Items:

A2: Complete the study *Identification of Critical Habitats and Life Histories of Westslope Cutthroat Trout in the (North Fork) Flathead River, Canada* (Tepper, Muhlfield)

A3: Complete the study *Predicting the Effects of Climate Change on Aquatic Ecosystems in the Crown of the Continent Ecosystem, a pilot aquatic vulnerability assessment in the Transboundary Flathead River System* (Muhlfield, Hauer)

A4: Convene an inter-jurisdictional fisheries team to develop a collaborative workplan, including inter-jurisdictional data and information synthesis.

A5: Complete year 1 fisheries surveys in support of BC information commitments pursuant to negotiations over mineral rights withdrawal.

A6: Complete Part I of an adaptation strategy with a focus on aquatic resources (see Action Item C1 and C3 below).

2013 – 2015 Action Items:

A7: Set-up multi-year monitoring program for bull trout, westslope cutthroat trout, and sensitive aquatic invertebrates, building on 2008 – 2012 distribution and abundance surveys conducted by Montana Fish Wildlife and Parks (MT FWP) and the U.S. Geological Survey (USGS).

A8: Include the British Columbia portion of the Flathead (mainstem and tributaries) in the basin-wide bull trout redd count inventories, conducted annually by MT DFWP, the National Park Service (NPS), the USGS, and the USFWS.

A9: Build on 2008-2010 analysis of aquatic macroinvertebrates as indicators of aquatic ecosystem function and vulnerability to climate change.

II WILDLIFE

2012-2013 Action Items:

A10: Complete the study *Large Carnivore Fine-scale Linkages* to (a) Identify specific wildlife linkage locations across highways 1, 2, 200, 93, and I-90; and (b) recommend and implement with partners conservation delivery on public and private lands to make these movement corridors more permeable to wildlife.

2013-2015 Action Items:

A11: Work with transportation departments to identify key bridges and culverts that can be modified to make them more permeable to wildlife when they are replaced or maintained.

A12: Work with land conservation NGOs and county governments to identify key private lands for easement to maintain open space and to enhance sanitation efforts to minimize wildlife/human conflicts due to unsecured attractants in key linkage areas

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A13: Support the work of existing transboundary inter-agency partnerships to identify and effectively manage and protect transboundary wildlife corridors (GNLCC, CMP).

A14: Hold a series of coordination meetings with emerging and existing transboundary partnerships that include agencies, tribes/First Nations, and NGOs to facilitate coordination and cooperation toward ongoing mutual efforts related to understanding and enhancing wildlife linkage in adjacent portions of Montana, Idaho, Alberta and British Columbia within the Crown of the Continent.

A15: Collaboratively identify priority wildlife species of common interest for cooperative actions including data collection, data integration, information sharing and coordinated or complimentary management in support of each partners' missions and interests.

III AQUATIC INVASIVE SPECIES

2012-2013 Action Items

A16: Agree on common target species for focused AIS control efforts.

A17: Building on the 2011 CMP Forum, map the distribution and develop a trend and vector analysis of targeted aquatic invasive species (CMP and AGO).

2013-2015 Action Items

A18: Support the work of existing transboundary partnerships to work with agencies, programs, groups and associations on overall AIS management frameworks, including prevention protocols for AIS invasion and spread, coordinated or complimentary inspections and outreach and education materials toward the goal of long-term control.

A19: Identify the distribution and abundance of non-native aquatic species in Transboundary Flathead and identify and implement effective conservation and management programs to restore native aquatic species and ecosystems.

B. FACILITATE CLIMATE CHANGE ADAPTATION (MOU SECTION II. PARAGRAPH A.)

Build regional capacity to understand and address the challenges posed by climate change to Western North American jurisdictions by enhancing and coordinating climate monitoring networks, regional centers of applied climate science and regional emergency planning within jurisdictions.

2012-2013 Action Items

B1: Assemble existing analysis relevant to aquatic ecosystem vulnerability and habitat suitability in order to delineate spatially explicit areas that provide key environmental services in the face of climate change (include demonstration projects, pilot projects and vulnerability assessments).

B2: Assemble a Technical Working Group to guide data assembly and analysis (former) and where feasible, translation into agreed upon management actions (latter).

2013-2015 Action Items

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B3: Building on previous Action items, develop a watershed-level, spatially explicit Transboundary Flathead Aquatic Adaptation Strategy, with particular attention to native fisheries and aquatic ecosystems.

B4: Building on the Aquatic Adaptation Strategy, facilitate a similar process for terrestrial species and habitats.

C. SHARE INFORMATION PROACTIVELY (MOU SECTION I. PARAGRAPH D.)

Share information proactively, subject to all relevant laws and regulations, exchange authorizations, permits, approvals, licenses, tenures and draft planning documents on proposed projects that have potential cross-border, wildlife or water quality impacts; and develop early notification procedures to identify problems or sources of concern to residents, First Nations, Tribes, or governmental entities in transboundary areas.

2012-2013 Action Items

C1: Complete year two of the Crown of the Continent Ecosystem Baseline and Trend Analysis. This multi-year assessment includes a habitat and connectivity analysis for key fish and wildlife species (grizzly bear, bull trout and westslope cutthroat trout) in the Crown.

C2: Initiate the Great Northern LCC Rocky Mountain Partner Forum to engage conservation practitioners and partnerships in the Rocky Mountains on connectivity and other conservation (GNLCC)

2013-2015 Action Items

C3: Acquire, re-format, and upload GIS data generated for the Flathead to an internet-based data management and analysis system: LC MAP: Landscape Conservation Management and Analysis Portal. LC MAP was devised and designed to facilitate inter-organizational data management and analysis which is otherwise hampered by connectivity issues like firewalls and security functions (i.e., intrusion detection).

D. MEASURES OF SUCCESS FOR THE FLATHEAD WORKPLAN

This provision out-lines some annual benchmarks for measuring successful implementation of the workplan.

D1: Annual reporting out from the management level to the Executive/Director level on the progress and work moving forward on each of the three provisions out-lined above in the workplan.

D2: Annual review of progress towards alignment across boundaries for the provisions out-lined above.

D3: Annual review of transboundary coordination on data collection, data-sharing and fish and wildlife management.

D4: Annual revisions to the workplan based on feedback from the multi-jurisdictional collaborators

D5: Demonstrated completion of the Action Items and projects listed in the provisions above.

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Contacts

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TABLE 1. BC-MT MOU - TRANSBOUNDARY FLATHEAD - TECHNICAL COMMITTEE

Name	Title	Agency
Taye Ayele	Elk Valley Cumulative Effects	BC Ministry of Forests, Lands and Natural Resource Operations
Mark Biel	Natural Resources Program Manager, Glacier National Park	National Park Service
Matt Boyer	Fisheries Manager, MT Fish, Wildlife and Parks	State of Montana
Katie Blake	BC Conservation Coordinator	Nature Conservancy of Canada
Yvette Converse	GNLCC Coordinator	US Fish and Wildlife Service
Mark Deleray	Fisheries Program Manager, Montana Department of Fish, Wildlife and Parks	State of Montana
Rob Davies	District Ranger, Hungry Horse and Glacier View	US Forest Service
Chris Downes	Fisheries Biologist, Glacier National Park	National Park Service
Tabitha Graves	Research Ecologist	US Geological Survey – Glacier Field Station
Blair Hammond	Manager, Ecosystem Conservation	Canadian Wildlife Service, Environment Canada
F. Richard Hauer	Director, Institute on Ecosystems	University of Montana
Matthew Heller	GNLCC Data Manager	US Fish and Wildlife Service
Peter Holmes	Ecosystem Biologist	BC Ministry of Forests, Lands and Natural Resource Operations
Rich Janssen	Department Head, Natural Resources	Confederated Salish and Kootenai Tribes
Richard Klafki	Canadian Rockies Stewardship Coordinator	Nature Conservancy Canada
Mike Knapik	BC Habitat Management Section Head	BC Ministry of Forests Lands and Natural Resource Operations
John Krebs	Director of Resource Management, Kootenay Region	BC Ministry of Forests, Lands and Natural Resource Operations
Heather Lamson	Fisheries Biologist	BC Ministry of Forests, Lands and Natural Resource Operations
Sharon LeBrecque	Acting Forest Supervisor, Flathead National Forest	US Forest Service
Madeline Maley	Executive Director, Regional Operations	BC Ministry of Forests Lands and Natural Resource Operations
Brian Marotz	Hydropower Mitigation Coordinator, MT Fish, Wildlife and Parks	State of Montana
Clayton Matt	Natural Resource Section Head	Confederated Salish and Kootenai Tribes
Caryn Miske	Executive Director	Flathead Basin Commission
Jeff Mow	Superintendent, Glacier National Park	National Park Service
Garth Mowat	Head – Natural Resource Science and Stewardship Section	BC Ministry of Forests Lands and Natural Resource Operations
Clint Muhlfeld	Research Aquatic Ecologist	US Geological Survey – Glacier Field Station
Nancy Newhouse	Director of Conservation	Nature Conservancy Canada
Tom Olliff	Coordinator, GNLCC	National Park Service
Michael Proctor	Wildlife Biologist	Independent consultant



Mary Riddle	Chief of Planning	Glacier National Park
Tara Szkorupa	Senior Wildlife Biologist	BC Ministry of Forests Lands and Natural Resource Operations
Chris Servheen	Grizzly Bear Recovery Coordinator	US Fish and Wildlife Service
Erin Sexton	Coordinator, Research Scientist	University of Montana, Institute on Ecosystems
Amber Steed	Fisheries Biologist, Montana Fish, Wildlife and Parks	State of Montana
Herb Tepper	Fish Habitat Biologist	BC Ministry of Forests Lands and Natural Resource Operations
Tim Thier	Wildlife Biologist, MT Fish, Wildlife and Parks	State of Montana
Joel Tohtz	Fisheries Mitigation Coordinator, MT Fish Wildlife and Parks	State of Montana
Pat Van Eimeren	Fisheries Biologist, Flathead National Forest	US Forest Service
Mike Volesky	Deputy Director, Montana Fish, Wildlife and Parks	State of Montana
John Waller	Supervisory Wildlife Biologist, Glacier National Park	National Park Service
Ray Warden	Director, Lands and Resources	Ktunaxa Nation Council
Greg Watson	Chief of Office of Landscape Conservation-Mountain Prairie	US Fish and Wildlife Service
Chip Weber	Forest Supervisor, Flathead National Forest	US Forest Service
Jim Williams	Wildlife Program Manager, Fish Wildlife and Parks	State of Montana
Phil Wilson	Chief, Natural Resources, Glacier National Park	National Park Service