Restoring Beavers for Montana's Watershed Health:

MONTANA BEAVER ACTION PLAN

2026 – 2029



Created by the Montana Beaver Working Group

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Executive Summary

The Montana Beaver Working Group (MBWG) is made up of a wide diversity of stakeholders from across Montana with the mission to "connect people and share resources to elevate the vital role of beavers in Montana's ecosystems." In support of this mission, the MBWG collaboratively develops a new Montana Beaver Action Plan every three years as a mechanism to elevate and coordinate beaver-related policy, science, education, and management across Montana.

This Action Plan outlines the priority goals, strategies, and actions developed through conversations with MBWG members from March of 2023 to April 2026 and builds upon the previously published Montana Beaver Action Plan in 2020 and 2023, respectively. On April 13th, input was gathered at the MBWG's annual meeting hosted in Lewistown, Montana where 50 members provided feedback on the draft plan and discussed key issues relevant to beavers and beaver restoration in the state. The 2026 Action Plan was produced with facilitation support from the University of Montana's Center for Natural Resources and Environmental Policy and funded by the Broad Reach Foundation, National Wildlife Federation, Montana Fish, Wildlife & Parks, and the Greater Yellowstone Coalition.

This document is intended to be a resource for managers, practitioners, individual citizens, landowners, and scientists to better understand the landscape of beaver conservation in Montana. This document does not represent the position of individuals or organizations involved with the MBWG but rather is a place to guide our collective work.

A new addition to the 2026-2029 Action Plan is the "Beaver Ponder" in Appendix A. These are actions members identified through the planning process that currently do not have a lead or clear path to implementation. This list is included in the plan as inspiration for future collaboration or action. Several Beaver Ponder actions were elevated during the in-person meeting as priorities over the next three years – these are included in the plan under the appropriate goal and highlighted in blue.

2026 – 2029 Outline of Goals and Strategies

Goal 1: Strengthen scientific research and monitoring practices to support beaver-related policy, education, restoration, and management actions.

- Strategy 1.1: Conduct applied ecological research to fill knowledge gaps about beaver-modified habitats and restoration effectiveness.
- Strategy 1.2: Expand the use of Montana's beaver monitoring data to characterize damming activity and restoration effectiveness at watershed scales.
- Strategy 1.3: Develop and adopt standardized monitoring protocols to build comparable datasets across beaver restoration sites.

Goal 2: Expand and integrate beavers and the ecological processes they provide into the planning and implementation of restoration practices to improve ecosystem function and resilience.

- Strategy 2.1: Implement pilot beaver restoration projects to test/demonstrate new techniques and gauge public sentiment.
- Strategy 2.2: Develop and distribute guidance documents, databases, and planning tools practitioners can use to identify beaver restoration sites and techniques with the highest probability of success and articulate potential outcomes to partners.
- Strategy 2.3: Provide clarity to those seeking funding and those providing funding as to when and where beavers or beaver-related restoration fit into those funding mechanisms.

Goal 3: Promote beaver management practices that recognize beavers as a critical component of Montana's ecosystems.

- Strategy 3.1: Provide resources and tools for beaver conflict management in consideration of diverse landowner and stakeholder needs, site specifications, and tolerance levels for beavers.
- Strategy 3.3: Work with Tribal nations on beaver restoration efforts, including on-the-ground work and traditional stories about beavers, to understand how Traditional Ecological Knowledge is informed by beaver-modified landscapes.

Goal 4: Identify opportunities within state, federal, and local planning processes to promote beaver-related restoration beyond the project scale.

- Strategy 4.1: Engage at all levels of government agency policy, permitting, and species management processes.
- Strategy 4.2: Engage in ongoing policy monitoring work.

Goal 5: Foster partnerships among agencies, Tribes, private landowners, and organizations engaged in beaver-related work to support landscape-scale efforts.

- Strategy 5.1: Strengthen coordination within the MBWG by fostering cross-jurisdictional connections.
- Strategy 5.2: Expand outreach and engagement with restoration practitioners, regional partners, and Tribal nations to broaden participation in beaver-related restoration and ensure inclusive, compensated collaboration.



Photo Credit: Tanner Saul, NWF

Goal 1: Strengthen scientific research and monitoring practices to support beaver-related policy, education, restoration, and management actions.

Strategy 1.1: Conduct applied ecological research to fill knowledge gaps about beaver-modified habitats and restoration effectiveness.

Action	Lead	Partners	Status	Timeline	Contact
Further research on the ecological impacts of active beaver dams and beaver mimicry using soil moisture/temperature sensors and bioacoustics monitors to better understand changes in microclimate variables and biodiversity in beaver-modified habitats and LTPBR sites in the Northern Great Plains.	Clemson University/Smithsonian Institute	National Wildlife Federation, The Nature Conservancy	Planning	Ongoing	Andy Boyce, Maya Rayle, Jenna D. Krugler
Conduct bird surveys across beaver restoration projects in southwest Montana (reintroductions, natural recolonization, LTPBR) to better understand relatively short-term temporal responses to habitat use post-management actions.	TNC	University of Montana Bird Ecology Lab, agency partners	Planning	Spring 2026 - ongoing	Heidi Anderson (TNC)
Deploy field study testing beaver responses to canal infrastructure to assess canal mimicry as viable option to attract beavers into new habitats.	Beaver Institute	NA	Planning	TBD	Jordan Kennedy (Beaver Institute)

Develop research project on big game and large carnivore use of beaver-modified habitats in Montana.	FWP	MSU	Proposed	2027 - 2030	Torrey Ritter (FWP)
Develop PhD-level research on beaver-bull trout interactions.	FWP	Members of BFWG	Proposed	Start in 2027/28	Torrey Ritter (FWP)
Deploy test sites with partners in Vermont, Oregon, and Mississippi to determine how beavers respond to human-built canals — invite Montana participation to test across ecosystem types.	Beaver Institute	NA	Planning	Start in summer 2026	Jordan Kennedy (Beaver Institute)

Strategy 1.2: Expand the use of Montana's beaver monitoring data to characterize damming activity and restoration effectiveness at watershed scales.

Action	Lead	Partners	Status	Timeline	Contact
Update Montana Beaver Dam Census in Great Plains using UM protocols for under-represented areas.	FWP	UM, Clemson University	Proposed	2027 - 2028	Torrey Ritter (FWP)
Use Beaver Dam Census to develop watershed-level reports on beaver damming activity relative to modeled suitable habitat (e.g., Big Hole).	FWP	BHWC, MTNHP, other watershed groups	Proposed	End of 2026	Torrey Ritter (FWP)

Improve monitoring of previous stream restoration projects in Lolo National Forest including: 1) identify the percentage of installed large wood structures that were built on by beavers and the geomorphic changes that occurred at these structures compared to structures that were not manipulated by beavers, 2) Changes in floodplain function, 3) Changes in forage base for beavers.	Lolo National Forest (Soil, Water, Fish program)	NA	In progress	Ongoing	Kris Richardson (USFS – Lolo National Forest)
Monitor beaver conflict resolution projects to assess wetland acreage conserved and expand funding options (e.g., Migratory Wetland Bird Program).	FWP	NWF	Planning	End of 2026	Torrey Ritter (FWP)
Monitor beaver conflict resolution projects to assess time savings to FWP staff from not having to take calls, issue permits, site visits, etc.	FWP	NWF	Proposed	End of 2027	Torrey Ritter (FWP)
Update FWP's Beaver-SGCN interaction analysis with 2025 SWAP species list and new literature.	FWP	MTNHP, other species experts	Planning	End of 2027	Torrey Ritter (FWP)

Strategy 1.3: Develop and adopt standardized monitoring protocols to build comparable datasets across beaver restoration sites.

Action	Lead	Partners	Status	Timeline	Contact
Develop a standardized monitoring survey for mesic restoration projects with the Montana Grassland Partnership for the Northern Great Plains.	Montana Grasslands Partnership: Mesic Working Group	NA	Planning	Summer 2026	Frankie Freilich (Anabranch Solutions); Autumn Holzgen (MCC)
Develop a standardized set of protocols for monitoring key aspects of beaver-related restoration projects to build robust datasets that speak to outcomes across multiple stream types and landscape settings.	FWP	BFWG	In progress	End of 2026	Torrey Ritter (FWP)

Goal 2: Expand and integrate beavers and the ecological processes they provide into the planning and implementation of restoration practices to improve ecosystem function and resilience.

Strategy 2.1: Implement pilot beaver restoration projects to test/demonstrate new techniques and gauge public sentiment.

Action	Lead	Partners	Status	Timeline	Contact
Conduct pilot beaver transplantation projects in Spotted Dog Wildlife Management Area, the upper Moose Creek drainage in the Big Hole River watershed, and on the Flying D Ranch.	FWP	TNC, USFS, BLM, BHWC, NWF	In Progress	2026 - 2028	Heidi Anderson (TNC), Torrey Ritter (FWP)

Strategy 2.2: Develop and distribute guidance documents, databases, and planning tools practitioners can use to identify beaver restoration sites and techniques with the highest probability of success and articulate potential outcomes to partners.

Action	Lead	Partners	Status	Timeline	Contact
Update and publish version 2 of FWP's white paper on beaver restoration to include updated transplant protocols, expanded monitoring recommendations, and additional literature reviews.	FWP	FWP	In progress	Spring 2027	Torrey Ritter (FWP)
Update Montana Beaver Restoration HUB with fisheries information (e.g., fish distribution maps with guidance on what to do if a given species may be	FWP	FWP, TU, MTNHP, BFWG	Planning	End of 2027	Torrey Ritter (FWP)

present). Include mapped “no-go” zones identified by fisheries biologists.					
Develop a database and mapping program of BDA installation sites in Montana to facilitate monitoring, research, and better targeting of transplant and natural colonization efforts.		FWP, Anabranch Solutions	Beaver Ponder		Torrey Ritter (FWP)

Strategy 2.3: Provide clarity to those seeking funding and those providing funding as to when and where beavers or beaver-related restoration fit into those funding mechanisms.

Action	Lead	Partners	Status	Timeline	Contact
Work with stream restoration funders to explicitly include beavers in application materials from the start of project planning — including both restoration potential and conflict considerations.	FWP	FWP, TU, TNC	Proposed	End of 2027	Torrey Ritter (FWP)
Update the Montana Conservation Menu to add a filter for funding sources that could be used for various forms of beaver restoration.	MWCC	NRGWG	Beaver Ponder	End of 2028	MWCC, Torrey Ritter (FWP)

Goal 3: Promote beaver management practices that recognize beavers as a critical component of Montana's ecosystems.

Strategy 3.1: Provide resources and tools for beaver conflict management in consideration of diverse landowner and stakeholder needs, site specifications, and tolerance levels for beavers.

Action	Lead	Partners	Status	Timeline	Contact
Identify situations on the Lolo National Forest where infrastructure infringes on beaver habitat and engineer solutions to resolve conflict.	USFS	BCRP	In progress	2026 - 2029	Kris Richardson (Lolo NF)
Continue expansion of BCRP in Montana and develop stable funding mechanism; explore FWP adoption.	NWF	FWP	Proposed	2026 - 2028	Torrey Ritter (FWP), Elissa Chott (NWF)
Work with fish biologists to identify and address areas of conflict between beavers and imperiled aquatic species including ESA-listed species and SGCN.	FWP	NWF, BFWG	Active	2026 - 2029	Elissa Chott (NWF)
Develop MBWG general public handouts on: (a) Tiered solutions to beaver conflicts, (b) LTPBR, (c) land stewardship strategies to complement/encourage beaver-related restoration	NWF	NWF, MCC, BFC	In progress		Torrey Ritter (FWP), Elissa Chott (NWF)

Strategy 3.3: Work with Tribal nations on beaver restoration efforts, including on-the-ground work and traditional stories about beavers, to understand how Traditional Ecological Knowledge is informed by beaver-modified landscapes.

Action	Lead	Partners	Status	Timeline	Contact
Collect, fully cite, and include published Tribal narratives in FWP's white paper on beaver and beaver restoration in Montana.	FWP	Tribal Nations, Beaver Institute	Proposed	End of 2027	Jordan Kennedy (Beaver Institute)

Goal 4: Identify opportunities within state, federal, and local planning processes to promote beaver-related restoration beyond the project scale.

Strategy 4.1: Engage at all levels of government agency policy, permitting, and species management processes.

Action	*Lead*	*Partners*	*Status*	*Timeline*	*Contact*
Incorporate the GYCC funded LTPBR Fire Planning Tool into federal and state stream restoration policy.	GYCC	USFS	In Progress	Ongoing	Kurt Imhoff (GYC)
Use the Montana Beaver Transplant Program policy framework to expand the use of beaver transplants by identifying the next suite of projects to present to the Fish and Wildlife Commission in 2028/2029.	FWP	MBWG members	In progress	2028/2029	Torrey Ritter (FWP)
Promote beavers and beaver restoration in comments and engagement in revision of National Forest Management Plans, BLM RMP updates, FWP restoration and species management plans, DNRC drought management planning, etc.	MBWG	MBWG members	In progress	Ongoing	MT Beaver Working Group
Identify and advocate for a suite of policies integrating beaver management and beaver-based restoration into wildfire risk reduction, wildfire fighting, and post-wildfire recovery programs.		BHWC	Beaver Ponder		Amy McNamara (NRDC)

Strategy 4.2: Engage in ongoing policy monitoring work.

Action	Lead	Partners	Status	Timeline	Contact
Watchdog policy issues and coordinate providing comments as they arise.	CFC	MBWG members	In progress	Ongoing	Lily Haines (CFC)
Develop and implement a process to inform stakeholders on when and how to engage in policy decision-making processes (e.g., email, call, write) to quickly update MBWG members on issues related to beaver management.	NWF/MBWG	MBWG members		2026 - 2029	NWF
Advocate at higher levels for increased monitoring and research funding.			Beaver Ponder		Frankie Freilich (Anabranch Solutions)
Work with Conservation Districts across the state on beaver restoration projects and their various permits, especially the 310 permit.		BHWC	Beaver Ponder	Area Meeting (September) MACD - November	Autumn Holzgen (MCC)

Goal 5: Foster partnerships among agencies, Tribes, private landowners, and organizations engaged in beaver-related work to support landscape-scale efforts.

Strategy 5.1: Strengthen coordination within the MBWG by fostering cross-jurisdictional connections.

Action	Lead	Partners	Status	Timeline	Contact
Coordinate statewide information-sharing workshop for those implementing beaver restoration projects to share outcomes and lessons learned annually.	NWF	MTGP, Southwest Montana Sagebrush Partnership			Shelby Weigand (NWF)
Produce bimonthly MBWG newsletter to share beaver-related news and resources in Montana and other states.	MBWG	MBWG members		Ongoing	Rob Rich (independent contractor), Shelby Weigand (NWF)
Develop a dedicated MBWG website housing the Beaver Action Plan, restoration resources, project map, events calendar, and volunteer opportunities.			Beaver Ponder		Torrey Ritter (FWP)

Strategy 5.2: Expand outreach and engagement with restoration practitioners, regional partners, and Tribes to broaden participation in beaver-related restoration and ensure inclusive, compensated collaboration.

Action	Lead	Partners	Status	Timeline	Contact
Work with partners within the MBWG to provide outreach to restoration practitioners about the need to coordinate with local fisheries biologists as a first step in project development.	FWP	FWP, TU, MCC, watershed groups, CDs, etc.	Planning	End of 2027	Torrey Ritter (FWP)
Develop list of most common groups leading stream restoration projects in each region of the state for the purposes of future targeted outreach about things relevant to beaver restoration.	FWP	BFWG, TU, MCC, watershed groups, CDs, etc.	Planning	End of 2027	Torrey Ritter (FWP)
Collaborate with the Blackfeet Nation on their beaver conflict management program in recognition of the exceptional number and breadth of beaver-modified habitats on their lands.		FWP, NWF, Jim Vaile	Beaver Ponder		Torrey Ritter (FWP)

Appendix A: Beaver Ponder

This list captures ideas developed by the MT Beaver Working Group during the 2025 action planning process that currently do not have a lead or clear path to implementation. While they were not identified as priorities during the spring 2025 meeting, we want to capture them in the Action Plan to inspire future action and/or collaboration.

Goal 1: Strengthen scientific research and monitoring practices to support beaver-related policy, education, restoration, and management actions.

- Develop set of key restoration and management questions around various forms of beaver restoration across settings (e.g., post-fire, degraded streams, prairie ecosystems) to address information needs relevant to improving beaver restoration and management practices.
- Monitor geomorphic units (e.g., riffles, pools, point bars) at restoration sites using drones to better quantify project outcomes related to stream evolution.
- Evaluate effectiveness of beaver-related projects using monitoring supported by FWP's Future Fisheries Program.

Goal 2: Expand and integrate beavers and the ecological processes they provide into the planning and implementation of restoration practices to improve ecosystem function and resilience.

- Articulate benefits and challenges of beaver-related restoration across different stream types and ecological settings in the form of handouts or resources for restoration professionals working with landowners.
- Develop and provide training materials on the Riverscapes Consortium and Process-Based Restoration Explorer for MBWG and others.
- Work with USFS, BLM, and DNRC to clarify contracts from timber sales and thinning projects to allow slash to go to beaver mimicry projects.
- Guage public sentiment using surveys and workshops after pilot projects and demonstration projects to identify concerns and interest in these practices.
- Coordinate collaborative efforts for conflict mitigation learning, when and where appropriate, between Blackfeet Nation and BCRP (funding opportunities, trainings, installations, relocations, knowledge sharing, etc.)

Goal 3: Promote beaver management practices that recognize beavers as a critical component of Montana's ecosystems.

- Revisit drainages with beaver trapping closures and develop forward strategy (i.e., re-opening, Special Management Areas, or maintaining closures).

Goal 5: Foster partnerships among agencies, Tribes, private landowners, and organizations engaged in beaver-related work to support landscape-scale efforts.

- Develop MBWG social media presence.
- Develop Tribal-specific section on MBWG website (resources, information on working with Tribes, etc.).
- Ask Tribal nations if and how the MBWG can support beaver-related restoration and management in their communities and provide compensation to Tribal community members for time and resources contributed to MBWG efforts.
- Identify and advertise proposed projects that would benefit from partner and volunteer support (e.g., BDA builds).
- Connect Forest Service and BLM field offices on streams crossing both ownerships.
- Create sub-groups or working groups through the MBWG specific to different agencies or organizations to better understand their needs, decision spaces, and project opportunities (e.g., USFS beaver group).

Appendix B: Glossary

- Beaver (related) restoration: The suite of techniques that rely on, mimic, or mitigate beaver activity to improve and maintain the ecological integrity of the stream channel, floodplain, and riparian system. There are six major techniques covered under beaver restoration, and they are 1) outreach and communications, 2) conflict management, 3) land management changes, 4) beaver mimicry, 5) encouraging natural colonization, and 6) beaver transplants.
- Beaver management practices: Practices that focus on managing the beavers themselves rather than their habitat. Examples include trapping regulations and conflict resolution.
- Beaver Mimicry: A stream and riparian restoration technique where humans build artificial, permeable structures in streams and rivers to replicate the beneficial hydrological and ecological impacts of natural beaver damming activity.
- Low-Tech, Process-Based Restoration: A practice of using simple, low unit cost, structural additions (e.g., wood and rock) to riverscapes to mimic natural geomorphic and hydrologic functions and promote specific processes. Hallmarks of this approach include an explicit focus on promoting geomorphic and fluvial processes, a conscious effort to use cost-effective, low-tech treatments (e.g., hand-built, natural materials, non-engineered, short-term design lifespans) because of the need to efficiently scale-up application, and 'letting the system do the work', which defers critical decision making to riverscapes and beavers.

Acronym Glossary

- BCRP: Montana Beaver Conflict Resolution Program
- BDA: Beaver Dam Analog
- BFWG: Beaver-Fisheries Work Group (FWP)
- BHWC: Big Hole Watershed Committee
- BFC: Blackfoot Challenge
- BLM: Bureau of Land Management
- CFC: Clark Fork Coalition
- DNRC: Montana Department of Natural Resources and Conservation
- ESA: Endangered Species Act
- GYC: Greater Yellowstone Coalition
- GYCC: Greater Yellowstone Coordinating Committee
- LTPBR: Low-tech, Process-Based Restoration

- MACD: Montana Association of Conservation Districts
- MBWG: Montana Beaver Working Group
- MCC: Montana Conservation Corps
- MSU: Montana State University
- MTGP: Montana Grasslands Partnership
- MTNHP: Montana Natural Heritage Program
- MWCC: Montana Watershed Coordination Council
- NRDC: Natural Resources Defense Council
- NRGWG: Natural Resource Grants Working Group
- NWF: National Wildlife Federation
- RMP: Resource Management Plan (BLM)
- SGCN: Species of Greatest Conservation Need (FWP)
- SWAP: State Wildlife Action Plan (FWP)
- TNC: The Nature Conservancy
- TU: Trout Unlimited
- UM: University of Montana
- USFS: United States Forest Service
- WWF: World Wildlife Fund



Photo Credit: Shelby Weigand, NWF. Spring 2026 Beaver Working Group Meeting field day south of Judith Gap, MT.