

VI. 2008-2012 Strategic Framework Assessment of Accomplishments

The Montana Wetland Council relied on participants and four ad hoc Working Groups to assess the Ideal Outcomes for each Strategic Direction identified in the 2008–2012 Strategic Framework. Some task-based ideal outcomes were completed in the five-year time frame. Many are ongoing and accomplishments and needs have been reviewed and revised for the 2013–2017 update. Several were either not started due to lack of funding or no identified champion, or priorities have shifted and they are no longer considered vital. Overall, most Strategic Framework assessors observed that the 2008–2012 planning process and document development was effective in providing large-scale guidance to set priorities for the Council network of wetland and riparian professionals.

Strategic Direction #1: Public Education 2008–2012 Accomplishments

Ideal Outcome	Completed	Ongoing	Not started/ No resources
1A – Information Campaign		X	
1B – Clearinghouse	X		
1C – Education Specialist		X	
1D – Science Advisory			X

- 1A – Integrated into other strategic directions, not developed as a separate campaign.
- 1B – Clearinghouse website was enhanced in 2009 and is updated as needed.
- 1C – DEQ hired a wetland environmental specialist in 2009. Duties include SD#2 and SD#4.
- 1D – DEQ reviews all education and outreach material for scientific accuracy and consistency.

Shining Example: Public Education

As a network, numerous Montana Wetland Council partners have created public education resources and embarked on outreach and marketing efforts. These target several specific audiences regarding knowledge of, appreciation for, and encouragement to take action to restore and protect the valuable functions performed by wetlands and riparian resources. For example, two publications highlight landowner outreach: *A Landowners’ Guide to Montana’s Wetlands and Landowners’ Guide to Eastern Montana Wetlands and Grasslands*. Both included case studies and were distributed to more than 1,000 interested parties. Landowner outreach also included property owners. For example, the Flathead Lakers reported that site visits to 21 properties resulted in 100 percent of the landowners changing some type of land-use practice on their property to protect water quality. Another example highlights collaboration with Montana Audubon, which produced outreach material for local governments: *A Planning Guide for Protecting Montana’s Wetland and Riparian Areas*.



Shining Example: Stewardship Awards

Montana Wetland Council's biennial Wetland Stewardship Award 2009 and 2011 recognize individuals and teams who exemplify excellence and commitment in wetland conservation, protection, restoration, and stewardship. The award ceremony is held in conjunction with the Montana Watershed Coordination Council, which recognizes individuals and groups providing innovative, locally led approaches to conserving, protecting, restoring, and enhancing watersheds in Montana. Wetland stewardship awards recipients include: Jim and Cindy Kittredge of the Bird Creek Ranch near Cascade, and NRCS Bozeman-area biologist Tim Griffiths, in 2009; and Henry and Trisha Gordon from the Gordon Cattle Company in Blaine County, and the Flathead River to Lake Initiative, in 2011. In 2013, the Montana Wetland Council will honor the Valley Garden Ranch in Madison County, and the Blackfoot Trumpeter Swan Restoration Program. Montana landowner stewardship was also recognized at the national level when the National Wetland Award for Landowner Stewardship was awarded to the Laszlo Family Granger Ranches near Ennis, in 2010. The National Wetland Award for Conservation and Stewardship was awarded to Tim Swanson from The Nature Conservancy–Montana for his work with the ranching community in southwestern Montana in 2012. These awards not only acknowledge the recipients' positive stewardship and restoration work, but also encourage and inspire landowners and others interested in similar endeavors.

Strategic Direction #2: Professional Training 2008–2012 Accomplishments

Ideal Outcome	Completed	Ongoing	Not started/ No resources
2A – Workshops	X		
2B – Professional Development	X		
2C – Technical Assistance to Professionals		X	
2D – National/Regional Conference	X		

- 2A – Specific trainings and workshops were held in conjunction with other meetings: floodplains, sanitarians, planners, and more.
- 2B – Scholarships included those to EPA Region 8 Wetland Workshop, Clean Water Act Section 404 training, Association of Montana Floodplain Managers, GIS training, and others.
- 2C – The 2008–2012 emphasis on data and generating information allows this outcome to be a future focus.
- 2D – Montana hosted the three-day Region 8 Wetland Program Capacity Building Workshop in 2010 and a Wetland Training Institute field practicum in 2011.



Shining Example: Professional Development

Montana Wetland Council participants created a new professional development training series in 2010 that offered continuing education credits eligible for Professional Wetland Scientist Certification. The annual training is now institutionalized at Montana State University and provides field and classroom courses in wetland regulation, restoration, monitoring and assessment, and other topics. Council participants initiated a Montana chapter of the Society of Wetland Scientists that offers a professional speaker series. Field-based wetland plant identification trainings were developed and offered at 11 locations across Montana and attended by about 250 people; they will continue to be offered at three locations per year into the future. Council participants developed, published, and distributed 3,000 copies of a booklet, *Common Native and Invasive Wetland Plants in Montana*.

The result of these trainings means sanitarians, floodplain managers, land-use planners, range managers, local decision-makers, and public and private resource professionals can better identify potential wetland areas, are better able to avoid impacts to these areas, have the tools and resources to integrate wetland and riparian protection into their work, know when permits are needed, and are acquainted with wetland and riparian resource professionals they can call upon.

Strategic Direction #3: Mapping, Monitoring & Assessment 2008–2012 Accomplishments

Ideal Outcome	Completed	Ongoing	Not started/ No resources
3A – Mapping Center		X	
3B – Track Wetland Loss/Gain		X	
3C – Floodplain Mapping		X	
3D – Reference Network Palustrine emergent wetlands	X	X	
3E – Assessment & Monitoring Program			X
3F – Climate Change Impacts		X	

- 3A – See digital wetland and riparian mapping “Shining Example” below. Outreach on map availability and use is needed.
- 3B – Tracking was attempted unsatisfactorily in three watersheds. Map scale and photo detail were the overriding factors. We need to determine a more robust method to estimate wetland loss and gain.
- 3C – Floodplain mapping has advanced, including several channel migration studies. Clearinghouse is needed.
- 3D – See reference network “Shining Example” below. Additional wetland/riparian types are needed.
- 3E – MTNHP has developed information for one wetland type. MTNHP needs to expand and work with other wetland and riparian partners to make these findings available to others.
- 3F – Research on groundwater-dependent ecosystems and prairie wetlands has been initiated.



Shining Example: Digital Wetland and Riparian Mapping

Montana Wetland Council participants were successful in adding a new data layer—wetlands and riparian areas—as one of the 14 official Montana Spatial Data Layers. That paved the way for the Montana Natural Heritage Program (MTNHP) to create the Wetland and Riparian Mapping Center and a partnership approach to funding the development of digital mapping information. Prior to 2007, 43 percent of Montana had digital wetland mapping created from 1980s-era aerial imagery. Since 2007, one-third of these areas with historical mapping now also have digital wetland and riparian mapping created from 2005 or later aerial imagery. An additional 34 percent of the state that lacked digital mapping now has wetland and riparian mapping created from recent aerial imagery. An additional 23 percent of the state has funding for mapping over the next five years, resulting in coverage of 71 percent of Montana with new digital wetland and riparian mapping. These accomplishments are possible due to the funding support from 14 Council partners (including major funding from BLM, Great Northern Land Conservation Cooperative, Montana Land Information Act, and EPA Region 8) and the expertise of the Montana Wetland and Riparian Mapping Center at MTNHP.

Maps provide information on the location and type of wetlands and riparian areas. Additionally, MTNHP provides value-added information to these maps by adding descriptors that describe potential wetland functions (water storage, nutrient cycling, sediment retention), making them useful to a broad range of users for planning and prioritizing for management, restoration, and conservation. BLM is using the digital information to apply protective land-use stipulations during energy development. MDT uses the maps in highway planning efforts for new alignments and to avoid or minimize aquatic impacts. DEQ and watershed groups are using the maps to identify suitable restoration sites that will have a positive effect on water quality and quantity. Maps can also be used to address drought management, water quality impairment, and a host of other resource management needs. CSKT mapping experts have teamed up with the MTNHP Wetland and Riparian Mapping Center to cross-check map accuracy on state and tribal lands.

Shining Example: Reference Network and Ecological Assessment Protocol

The Montana Natural Heritage Program completed a reference network for herbaceous wetland types that represents a gradient of wetland conditions from poor condition to highest quality, a goal identified in Montana Wetland Council's 2008-2012 Strategic Framework. In addition, MTNHP created a spatial and tabular database to house and manage assessment data. A Montana Ecological Integrity Assessment Method and protocols were also created to consistently assess wetlands and establish a baseline condition for many wetlands and wetland types. A rotating basin monitoring and assessment program was initiated and basin-wide assessments were completed for the Milk–Marias watersheds, southwestern Montana, and southeastern Montana, representing nearly 300 assessments. This science-based assessment and monitoring approach provides an ecological understanding of wetland systems in Montana, as well as information on their condition, typical stressors that occur near wetlands, and how these affect wetland health. The reference network can be used to set restoration targets for both regulatory mitigation and voluntary or incentive-based restoration. These protocols and data also provide an opportunity to integrate wetland assessments into other watershed assessments for a comprehensive picture of watershed health.



**Strategic Direction #4: Restoration
2008–2012 Accomplishments**

Ideal Outcome	Completed	Ongoing	Not started/ No resources
4A – Wetland Legacy Partnership Aquatic Resource Crediting Program	X	X	
4B – Restoration Support		X	
4C – Document Protection			X
4D – Evaluate Success			X
4E – Restoration Handbook		X	

- 4A – The Legacy Partnership has accomplished several Ideal Outcomes. Sustainable funding has been a challenge, however, resulting in several priorities (state-owned land restoration and tracking database) not yet initiated or completed.
- 4B – Support for restoration has occurred through trainings, award program, and site tours as resources permit. Additional public outreach regarding restoration benefits and opportunities is needed.
- 4C – Aligning the stewardship database with conservation easements has not occurred. Due to compatibility challenges it is no longer a priority.
- 4D – This work remains an unfunded priority and has shifted to monitoring and assessment for update.
- 4E – *Restoration Guidelines for Wetlands of the Western Prairie Pothole Region* has been completed. Additional wetland and riparian types will need funding.

Shining Example: Aquatic Mitigation Crediting Program

Montana Wetland Council participants created an In Lieu Fee (ILF) program to offset impacts to aquatic resources throughout Montana under the Corps 404 and Section 10 regulatory program. Montana Aquatic Resources Services (MARS) was developed as a 501(c)3 non-profit entity and represents a third option for compensatory mitigation. This option adds increased flexibility for permittees and additional restoration for Montana’s aquatic resources. In addition, MARS was established to go beyond compensatory mitigation and offer other aquatic restoration. For example, the Exxon Pipeline Mobil Company is using MARS’s services to establish channel migration easements along portions of the Yellowstone River for their supplementary environmental program requirements resulting from the Yellowstone River Silvertip Pipeline oil spill. An additional unanticipated outcome is that the U.S. Army Corps of Engineers Stream Mitigation Protocol has been formalized since 2008. It provides a process to mitigate for stream impacts from permitted actions. The new statewide ILF program will be able to provide stream restoration and protection based on the Stream Mitigation Protocol.



Shining Example: CSKT Restoration Successes Shared with Council Participants

The Confederated Salish and Kootenai Tribes resource professionals have shared with Wetland Council participants their experience gained from two decades of work to protect and actively manage more than 17,000 acres with significant wetland/riparian acreage, including more than 25 miles of perennial, fish-bearing streams on the Flathead Indian Reservation. The far-ranging expertise the tribe has developed and shared includes restoring several thousand acres of wetland and riparian habitat using active and passive techniques, including a Tribal Forestry greenhouse that houses native plants grown from local seed sources. CSKT has also successfully reintroduced native species, including trumpeter swans and leopard frogs.

The tribe's experience in the Flathead and Mission valleys has aided swan reintroduction programs in the Blackfoot and Madison valleys. Watershed assessments in each of the seven watersheds on the Flathead Reservation and restoration focusing on water quality improvement has resulted in successfully reducing turbidity, water temperature, and nutrient loads, and has led to improved water quality and land and water management in agricultural settings. Experience gained in non-native species reduction (e.g. reed canary grass control), including mapping, monitoring, and actively managing non-native species in wetland/riparian areas, has informed management. They have also focused on promoting and demonstrating improved connectivity of fish and wildlife habitats over large geographic areas. For example, CSKT and MDT successfully collaborated on Highway 93 North reconstruction involving wildlife underpasses/crossings that have received national recognition and paved the way for similar improvements to Highway 93 South reconstruction. Finally, CSKT has worked cooperatively with federal agencies (EPA, USFWS, NRCS), state agencies (FWP), numerous local, non-profit, and university organizations, and private landowners to achieve wetland and riparian conservation and restoration goals.

*Successful wetland/riparian restoration projects require technical expertise, adequate hydrology, reestablishment of native species such as this *Juncus torreyi*, and landowner commitment.*
Photo: Karissa Ramstead



**Strategic Direction #5: Local Government
2008–2012 Accomplishments**

Ideal Outcome	Completed	Ongoing	Not started/ No resources
5A – Model Regulations/Other	X		
5B – Incentives		X	
5C – Assess Effectiveness		X	
5D – Training/Technical Assistance		X	
5E – Coordination		X	
5F – Financial Support		X	

- 5A – Completed projects include wetland and riparian considerations included in DNRC Model Floodplain Ordinance and development guidance such as Montana FWP *Fish and Wildlife Recommendations for Subdivision Development in Montana*.
- 5B – See “Shining Example” below, more focused work needs to be completed.
- 5C – Completed *A Planning Guide for Protecting Montana’s Wetland and Riparian Areas* in 2008 and updated the riparian setback and land-use planning table in July 2009. Another update would be useful.
- 5D – Limited training has occurred, need an outreach focus in the future.
- 5E – Coordinated on trainings, presentations, and award ceremonies. Increasing coordination with Montana Watershed Coordination Council, Montana Association of Conservation Districts, Montana Association of Counties, and Montana Association of Planners is a priority.
- 5F – EPA Wetland Protection Development Grants have supported local government projects such as an evaluation of riparian and wetland area management in Missoula County subdivisions, and approximate floodplain mapping for four counties in the Big Hole River Watershed.



Healthy riparian areas absorb high flows, reduce erosion, provide habitat, and reduce downstream erosion as seen in these paired images of the Missouri River on June 10, 2011, and September 29, 2007.

Photo: Lisa J. Dunn



Shining Example: Linking Wetland Protection with Floodplain Management

Montana Wetland Council participants completed and are helping to implement recommendations from a report titled, *Montana Floodplain Management Assessment: Strengthening Policies and Programs that Reduce Flood Risk and Protect Floodplains*.

This year-long assessment revealed that Montana’s flood risk reduction and protecting flood storage functions of natural wetland and riparian areas share similar goals. The assessment recommendations spawned rapid floodplain mapping, an updated statewide model floodplain ordinance for local governments, a grant proposal to map river hazards, and development of other tools and resources for local governments. Other resources include developing and distributing science-based publications such as recommendations on the size of stream vegetative buffers needed to protect water quality, fisheries, and wildlife. A pilot floodplain mapping project in the Big Hole watershed created a protocol for rapid approximate map development. That, coupled with the updated model floodplain ordinances, provides a template for other local governments to better protect their floodplain wetlands while reducing flood risk. Additional river hazard mapping in southwestern Montana (channel migration corridors, ice jam locations, and flood inundation) will provide a visual planning tool and has the potential to encourage more interest in floodplain management, reduce wetland and riparian impacts, protect floodplain wetlands, and encourage communities to adopt ordinances that equal or exceed the new DNRC Model Floodplain Ordinance. As a result of this work, the constituency for wetland protection has increased and become more broad-based, and partnerships between wetland and floodplain programs have strengthened.

Strategic Direction #6: Vulnerable Wetlands 2008–2012 Accomplishments

Ideal Outcome	Completed	Ongoing	Not started/ No resources
6A – Vulnerable Wetlands White Paper			X
6B – State Solutions		X	
6C – Clean Water Act		X	
6D – Collaborate on Outreach		X	
6E – Water Quality Role		X	

- 6A – The term “vulnerable wetlands” was not clearly defined. This outcome lacked a champion.
- 6B/6C – DEQ investigated Clean Water Act 401 certification, wetland water quality standards, and nationwide permit review. No state solutions have been forwarded at this time.
- 6D – Held outreach session across Montana, see “Shining Example” below.
- 6E – Included in Non-point Source Management Plan and conducted community outreach after the 2011 flooding across much of Montana.



Shining Example: Promoting Natural River Processes and Best Management Practices

The Governor’s Task Force for Riparian Protection developed a *Room to Roam* brochure and presentation. They conducted 19 public meetings discussing the public safety and ecological importance of giving rivers sufficient “room to roam” beyond their existing channel to accommodate natural channel erosion, flooding, and other natural river processes that can put streamside development at risk. The Task Force also teamed up with 10 conservation districts and the Montana Association of Conservation Districts to hold 12 listening sessions or focus groups about riparian management, involving more than 250 Montanans. Sixty personal interviews with stakeholders were also conducted. This outreach resulted in a document titled, *Taking the Pulse of Riparian Protection in Montana*. It provides Montana land management professionals a snapshot about the status of riparian protection from a landowner’s perspective, and recommendations for future outreach. Funding from EPA Wetland Program Development Grants and technical support from Council participants enabled this outreach work.

**Strategic Direction #7: Public Policy
2008–2012 Accomplishments**

Ideal Outcome	Completed	Ongoing	Not started/ No resources
7A – Evaluate Policies/Programs Wetland and Floodplain Assessment	X	X	
7B – Inform Congressional Delegation		X	
7C – Water Quality Standards		X	
7D – Participate on Boards/Councils		X	
7E – Integrate with Watershed Plans	X		
7F – Energy Development Model			X

- 7A – Completed two comprehensive assessments: *Increasing Protection for Montana’s Wetlands and Riparian Areas: Challenges and Opportunities*, and *Montana Floodplain Management Assessment: Strengthening Policies and Programs that Reduce Flood Risk and Protect Floodplains*.
- 7B – Provided information as requested.
- 7C – Initiated research and discussions and will investigate further when issue is prioritized.
- 7D – Coordinated with other entities based on Council participant interest and overlap with organization or agency mission.
- 7E – Completed in two watersheds and developed model and approach for others, see “Shining Example” below.
- 7F – Not started due to lack of funding and champion. Held Council meeting in central Montana that focused on energy development and wetland and riparian resources.

Shining Example: Integrating Wetlands into Watershed Restoration Planning

Montana Wetland Council participants piloted projects with two watershed groups in the Big Hole and Gallatin watersheds that hold promise for larger replication and significant restoration success. Water-quality-limited watersheds underwent a rigorous scientific



assessment, screening potential wetland restoration sites for water quality improvement. These watershed groups tested and refined office- and field-based protocols to identify potential wetland restoration sites that would yield maximum water quality benefits. This approach resolves watershed challenges in a more integrated and holistic fashion, demonstrating that wetland restoration contributes to water quality restoration, documenting that wetlands are a critical part of watershed health, and developing a replicable process for other water-quality-limited watersheds. The Big Hole and Gallatin watershed groups have shared their experiences with the Montana Watershed Coordination Council, the Montana Wetland Council, and at other statewide meetings to encourage others to integrate wetlands into watershed restoration planning.

***Strategic Direction #8: Council Effectiveness
2008–2012 Accomplishments***

Ideal Outcome	Completed	Ongoing	Not started/ No resources
8A – Monitor/Update	X		
8B – Committee & Working Groups		X	
8C – Grant Administration/Resource Fund		X	
8D – State Funding		X	

- 8A – Working Groups reported on Strategic Framework implementation at Council meetings. This assessment captures 2008–2012 accomplishment highlights.
- 8B – Steering Committee structure was not formed. Four ad hoc Working Groups addressed strategic directions and Ideal Outcomes as funding and participant resources allowed.
- 8C – Success occurred when strategic directions aligned with participant priorities, missions, or EPA grant funding priorities. EPA Region 8 Wetland Program Development Grants were critical.
- 8D – Approximately 1.5 FTE has been secured within DEQ funding for the Wetland Program staff. Other program funding is provided by competitive grants.

Shining Example: Growing the Wetland Council into a Network

The Montana Wetland Council has grown as an effective network, with a listserv distribution of more than 900 individuals, and Council meetings that consistently attract about 60 participants. The Council network is seen as a forum for learning and is working to increase the overall awareness of the importance of healthy wetland and riparian areas and our collective responsibility to protect these resources. The Council network is also a place for dialogue and solving problems. Council publications, meeting summaries, and newsletters reach a wide audience and the constituency for wetland protection has increased and become more broad-based. As a result, partnerships have strengthened, and participants report collaboration on more projects with other Council participants. In the last six years, Montanans have received three national wetland awards, showcasing the effectiveness of coordinated work and a network of committed professionals. This expanded network provides an opportunity for a more coordinated effort and approach to increase the collective impact and effectiveness of limited resources. Council leadership has been institutionalized within state government with dedicated funding to continue its effectiveness.

