

Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed

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Technical Proposal and Evaluation Criteria

Executive Summary

May 1, 2016

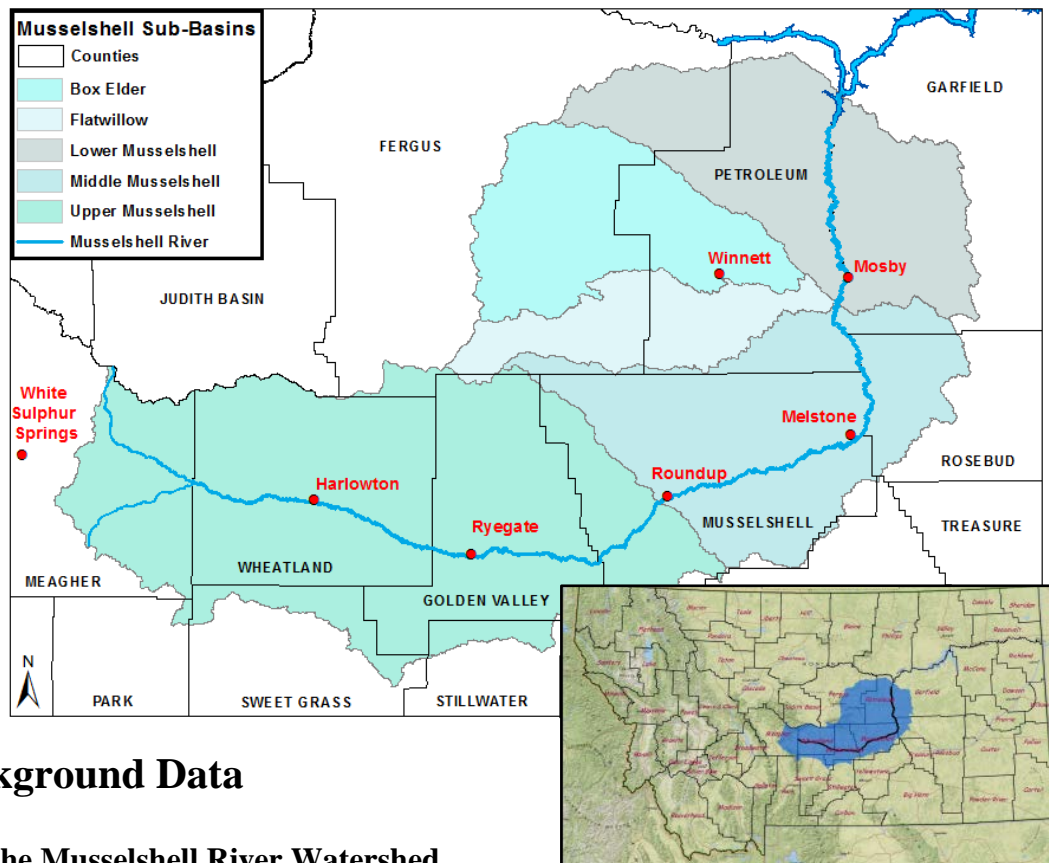
Petroleum County Conservation District
Winnett, Petroleum County, Montana

As a participant in the Musselshell Watershed Coalition (MWC), the Petroleum County Conservation District submits this application for expanding efforts to coordinate watershed-wide water resources planning in the Musselshell River Watershed. From October 2016 – September 2018, with this funding, the MWC will expand its watershed group efforts through the creation and adoption of bylaws and articles of incorporation; staffing a coordinator; hiring a facilitator; producing outreach materials, such as a brochure, newsletter, website; and traveling to visit partners in-person. The MWC will maintain and build its diverse set of partners through bi-monthly meetings and face-to-face visits with new and existing partners. The MWC will also use project funds to allow the coordinator to develop its watershed management project concepts to include drought resilient projects. In addition, the coordinator will begin development of a watershed restoration plan (WRP) by identifying goals for the WRP, conducting public education about the WRP process, creating an outline, and identifying appropriate smaller watersheds within the Musselshell Watershed for WRP completion. This effort also includes staffing a water quality volunteer monitoring program manager to oversee the collection and management of water quality data to inform the WRP. These activities will assist the MWC in its focus on watershed-wide collaboration strategies that are necessary to implementing projects and will result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.



Musselshell River in the fall of 2014. Photo by Kestrel Aerial.

Further Development of the Musselshell Watershed Coalition



Background Data

The Musselshell River Watershed

The Musselshell River Watershed contains approximately 9,500 square miles. The entire area is home to approximately 9,325 people. The main stem of the Musselshell River flows from the confluence of the North and South Forks near Martinsdale for nearly 340 miles to Fort Peck Reservoir and provides irrigation water for nearly 85,000 acres and 250 farms and ranches and 388 water rights holders, including six municipalities.

Water Use and Issues

Ranchers were the first non-indigenous people to settle the Musselshell River Basin. In this semi-arid place, people recognized the significance of water immediately with the first water right filing in the Basin occurring in 1869 for stock use. Irrigation water rights were first filed in 1875. This history of agriculture and water use for stock and irrigation carries through to today as the dominant water use of Musselshell River water. From the beginning, the Musselshell drained to a trickle in the late summer and water shortages set the stage for future water development and disagreements.

With the formation of the Montana Irrigation Commission in 1919, irrigation districts were created in the basin, and the emphasis of the board was on water storage projects. By 1938, federal funding for state water projects was secured to store water to allow irrigation of land in the basin. Martinsdale Reservoir was completed in 1939 and stores water for the Upper Musselshell Project. The largest funded project was Deadman's Basin, which was completed in 1941. The Delphia-Melstone Canal was built between 1945 and 1949. It carries decreed Musselshell River water and contract water purchased from Deadman's

Basin Water Users Association. Numerous off-channel small dams and reservoirs were also built in the 1930s and 1940s with federal funding. The USGS estimates the total consumptive water use for irrigation in the Musselshell basin to be 93,690 acre feet per year (USGS, 2004).

For over 50 years, the water users of these reservoirs fought, violently at times, over the timing of filling the reservoirs with river water. The Martinsdale project, located further upstream and completed first, felt the right to fill with water from the Musselshell first during the year. However, the Deadmans Basin water right was filed first, therefore, according to Montana water law, the lower reservoir has senior rights to Musselshell River water.

Finally, in 1995 the two water user association boards adopted a formal agreement to cooperatively manage river diversion rates and timing. Even with this agreement in place, it was the Musselshell River Distribution Project, implemented in 2002, that truly led to accurate water distribution on the Musselshell.

Musselshell River Distribution Project

The Musselshell River Distribution Project (MRDP) involves the administration of decreed water on over 350 miles of the Musselshell River, from the confluence of the North Fork and the South Forks to the USGS gage station at Mosby, and all waters considered by the Montana Water Court to be a part of the lower Musselshell River below the U.S.G.S. gage station at Mosby, Montana.

All parties recognize the benefits of maintaining year round flows, and all recognize the benefits of the MRDP that came with water rights enforcement. Since 2008, water has flowed uninterrupted to the confluence of the Missouri every year.

While the MRDP is viewed a success, the Musselshell remains classified by Montana Fish, Wildlife, and Parks as “chronically dewatered.” Water quality issues, in particular excessive salinity, have been exacerbated by low flows. The dewatering issue, recognized as significant by water users up and down the river, coupled with aging irrigation infrastructure precipitated the formation of the MWC. The MWC works to bring together water users and conservation entities to tackle the issue of using water more efficiently to benefit water users, river health, and the whole river ecosystem.

Floods

While historically drought and water shortages have characterized the Musselshell Basin, in the last five years, historic flood events have come to define the Musselshell River as unpredictable and powerful. In 2011, a combination of snowmelt and rain resulted in 150-year flooding along all reaches of the Musselshell. At its height, floodwaters reached two feet higher than the previous record flood in 1967. Roads and highways disappeared under water, fences were swept away, livestock drowned, the old abandoned Milwaukee Railroad grade that had served as a dike in past floods was breached in many places, and more than 50 homes were destroyed. Floodwaters remained standing on fields and in borrow ditches for 45 days, killing the vegetation it covered. The river environment was dramatically altered by the 2011 flood, as more than 35 miles of the river's length was lost due to avulsions across oxbows.

A late winter rain event related flood in 2013 caused damage to residences, roads, and the Musselshell County fairgrounds. Ice jams and unusually warm temperatures in March 2014 resulted in the third 100+ year flood event in 3 years on the upper and middle Musselshell. Rain in August on the lower Musselshell saw the flow rate of the river near Mosby increase from 150 cfs to 20,090 cfs in two days. The event in 2013 and the two events in 2014 were much shorter-lived than the 2011 flood, however the damage caused by the unexpected events will still take many years of recovery.



Flooding at Roundup, MT in 2011 (above) and at the lower end near Mosby, MT (below) in 2014. Photos by Kestrel Aerial.

Project Description

Description of Applicant

The Petroleum County Conservation District (PCCD) is the applicant for this grant. The PCCD is a **participant** in the Musselshell Watershed Coalition (MWC). The Petroleum County Conservation District works in conjunction with the Winnett Natural Resources and Conservation Service Field Office to provide conservation resource management tools to producers in Petroleum County, Montana. Currently, the PCCD and the MWC partner on several projects, including a feasibility study for channel migration zone mapping for the Musselshell River, administering a citizen-based water quality monitoring program through a Big Sky Watershed Corps member, and working toward implementation of the Musselshell Watershed Plan through a Watershed Management Grant from the Montana Department of Natural Resources and Conservation.

The **Musselshell Watershed Coalition (MWC)** has been in operation since 2009 as a unique partnership of individuals and organizations with a shared vision of supporting Musselshell River water management through collaboration along its entire length. The MWC is a voluntary partnership that brings together private associations, local districts, state agencies, and federal agencies. The Upper Musselshell Water Users Association, Deadman's Basin Water Users Association, Delphia Melstone Canal Water Users Association, and Mosby Musselshell Water Users Group represent members who practice irrigated agriculture and livestock grazing. Conservation Districts, which represent agriculture and conservation of lands within their jurisdiction, include the Upper Musselshell Conservation District, Lower Musselshell Conservation District, Petroleum County Conservation District, and Garfield County Conservation District. Counties, towns and individual landowners located along the river participate in discussions and projects. State and Federal agencies, including the Montana Department of Natural Resources and Conservation, Montana Department of Environmental Quality, Montana Fish, Wildlife, and Parks, and the Natural Resources and Conservation Service regularly participate as partners. The management of water is closely linked with an improving local economy and MWC is widely respected for its inclusive and pro-active leadership.



MWC partners receive the Montana Watershed Stewardship Group Award in 2015 at the Montana State Capitol.

In 2014, the MWC hired a part-time coordinator at approximately 12 hours per week. The group averages 700 volunteer hours contributed per year. A Big Sky Watershed Corps member, which

is an AmeriCorps program, has managed the volunteer water quality program since 2013. In early 2015, a board of directors was formed. The MWC works to lead a citizen-based salinity monitoring program; to bring together water-users, landowners, and agencies on a bi-monthly basis to discuss projects taking place in the watershed; to coordinate the financial contribution of 18 different partner organizations toward funding the gaging stations on the Musselshell River; to coordinate the development of Best Management Practices for landowner issues on the Musselshell River by the River Assessment Triage Team; to provide a voice for the Musselshell on the Montana Salt Cedar Team; to coordinate a GIS Database that assists in making water management decisions; and to spread more knowledge to others about the Musselshell Watershed, through a watershed history and aerial photography project. New projects for the MWC are a feasibility study for channel migration zone mapping on the Musselshell River and completing alternatives analysis for a four-mile stretch of flood-damaged river near the town of Roundup.

In 2015, the MWC received the 2015 Montana Wetland and Watershed Stewardship Group Award for, “the group’s persistence, dedication, and creativity put forth in its work within the Musselshell Watershed.”

Eligibility of Applicant

The Petroleum County Conservation District (PCCD) plays a key participant role in the Musselshell Watershed Coalition. The MWC relies on its governmental partner organizations to cooperatively accomplish projects, and in particular, to serve as fiscal agents necessary for bringing a project to completion. The PCCD currently handles the grant funds that employ the MWC coordinator as well as partner projects such as a Channel Migration Zone feasibility study, volunteer water quality program, and the newly completed Musselshell Watershed Plan.

Goals

This application requests funds to **further develop the Musselshell Watershed Coalition** (MWC). The MWC organized in 2009 around the following long-term goals to achieve a desirable quality of life for water users, the residents of the Musselshell Watershed, and the river itself:

Goal 1: Water Quantity – Meet decreed and contract water rights obligations by sustaining sufficient water in the Musselshell through cooperative flow management and a well-maintained irrigation infrastructure system.

Goal 2: Water Quality – Pro-actively work with State agencies to meet State Water Standards using a volunteer local approach.

Goal 3: Provide Governance, Planning & Outreach for the Coalition.

In the next two years, the MWC will further develop its **organizational structure**. These short-term goals guide organizational development for the MWC. Reaching goals for this effort will result in a more stable organization with a solid foundation for resiliency into the future:

Goal 1: Adopt Bylaws

Goal 2: Adopt articles of incorporation

Goal 3: Develop an outreach strategy

Goal 4: Solidify existing and build new partnerships

Approach

Gathering Information:

Information is essential as the MWC works to investigate new ideas, technologies, methodologies and perspectives. Specifically, the MWC coordinator will gather information on formalizing the MWC organization structure through the adoption of bylaws and articles of incorporation, potential new partners, effective outreach activities, drought planning and project needs, and background information for watershed restoration planning.

24 Months: Ongoing, October 2016 – September 2018

Developing Organizational Structure:

In 2015, the MWC created a board of directors. Drafting articles of incorporation, adopting bylaws, and supporting staff development is a priority for the board and will be pursued immediately by the MWC coordinator.

10 Months: October 2016 - August 2017

Conducting outreach:

The MWC coordinator, with support from the board, facilitator, and volunteer publicist, will develop and implement outreach strategies. The Montana Watershed Coordination Council is also providing technical and financial assistance for the MWC to develop an outreach plan. This plan will guide strategies for effective outreach. These strategies will focus on maintaining existing partnerships, identifying new partners, and implementing approaches to encourage new member involvement. Outreach activities will include face-to-face visits, materials such as brochures, newsletters, a website, and bi-monthly meetings.

The MWC creates a forum for networking and communication throughout the watershed and between the watershed and state and federal agencies located outside the watershed, but operating within it. With this funding, from October 2016 – September 2018, the MWC will continue to foster these partnerships through hosting **bi-monthly meetings** that are open to all. The coordinator will work with the MWC board to set the agendas and then will make meeting location arrangements, invite speakers, send meeting notices and invitations, and compile handouts and coordinate any meeting logistics, such as presentation needs. Continuing this effort is critical to maintaining existing and building new partnerships. Complementing the meetings is a **bi-monthly newsletter**. The coordinator compiles the newsletter. Currently, the newsletter is distributed electronically due to budget constraints. However, a paper newsletter also distributed to local participants will keep them more up-to-date and engaged in watershed activities. The MWC coordinator also operates a **website** with information on MWC projects and upcoming or past meetings. MSU Extension hosts a website that displays salinity data from the volunteer water quality program. The MWC irrigation infrastructure GIS database is hosted on the web. Each of these serve its purpose, however, it would be much better to rework the MWC website to contain all of MWC's data and information in one location. The coordinator will then continue to update and make changes to the website. This task also includes **travel**. Face-to-face visits are integral to maintaining and developing partnerships. This has been limited in the past by coordinator time and travel budgets. Making personal connections incentivizes a greater level of participation.

Maintain and expand participant base

24 Months: Ongoing, October 2016 – September 2018

Hold regular bi-monthly meetings

24 Months: Ongoing, October 2016 – September 2018

Develop outreach materials

Brochure – 12 Months: October 2017

Website – 14 Months: December 2017 (ongoing maintenance upon completion)

Newsletter – 24 Months: Bi-monthly, October 2016 – September 2018

Travel to meet with partners/participants

24 Months: Ongoing, October 2016 – September 2018

Identifying Drought Problems and Needs:

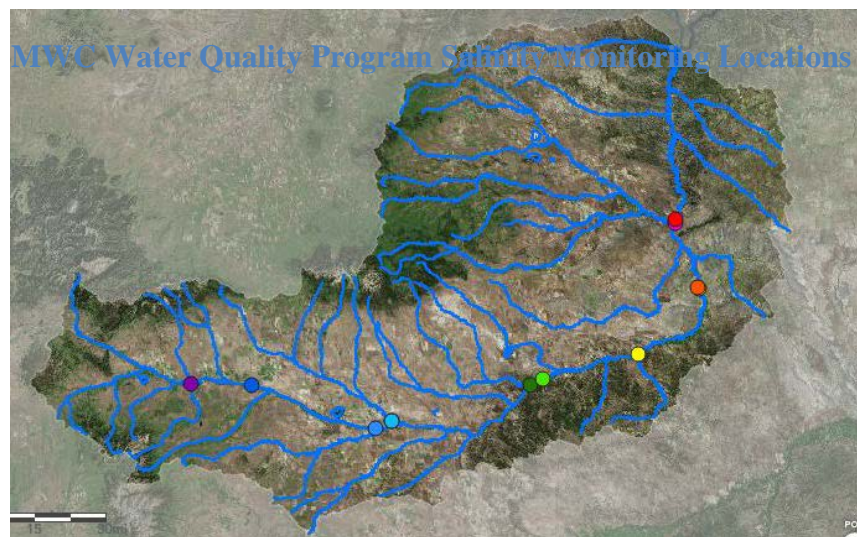
The MWC recently completed the Musselshell Watershed Plan, a basin-wide project prioritization process. Much of the work done following the 2011 flood was related to meeting critical infrastructure needs, and was therefore implemented on a project-by-project basis as necessary. Once the crises passed, the MWC and its partners recognized the need to develop a longer-term strategy for project characterization, design, funding, and implementation. The Musselshell Watershed Plan aimed to identify and prioritize projects that stakeholders consider to be valuable and important, and to develop a strategy for effective implementation of those projects. As MWC intermittently updates the watershed plan upon re-evaluation of project priorities and achievements, new projects may be added and a new set of priorities may result.

Done with the 2011, 2013, and 2014 floods fresh in partners' minds, the Musselshell Watershed Planning process did not receive drought planning or drought resiliency projects. With the recognition of the MWP as a living document, imperative drought planning will be addressed from December 2016 – February 2018 and the MWP amended. The coordinator will play a lead role in drought planning, and will follow the model being developed by the National Drought Resiliency Partnership and the Montana demonstration project.

14 Months: December 2016 - February 2018

Developing a watershed restoration plan:

Currently, the Montana Department of Environmental Quality (DEQ) is conducting a watershed assessment of the Musselshell Watershed. This effort will culminate in Total Maximum Daily Load (TMDL) documents for waterbodies throughout the watershed. Tentatively scheduled to be completed in 2018 or later, the TMDL completion should precede the completion of a



watershed restoration plan (WRP). Therefore, the MWC is not pursuing a final WRP at this time, however, now is a prime opportunity for the MWC to capitalize on DEQ efforts and expertise to prepare for WRP completion as soon as possible following the TMDLs.

Working simultaneously and in partnership with the DEQ, the MWC coordinator will provide education and

outreach about the TMDL process and development of a WRP. The Water Quality Volunteer Program coordinator will continue to oversee the collection of water samples that will elp inform the WRP. The MWC coordinator and facilitator will guide MWC participants in the process to establish goals for a WRP and to identify priority areas at an appropriate scale for WRP completion. This will include identifying and developing a list of nonpoint source management measures (potential restoration/Best Management Practices projects) that need to be implemented to achieve pollutant load reductions. The coordinator will also draft an outline for the WRP. This outline will include a placeholder for each of EPA’s nine minimum elements for a WRP. This background work will be prepared while the DEQ completes its watershed assessment so that the writing of the WRP can be done when the TMDLs are finished.

18 Months: January 2017 - June 2018

Creating a plan of action:

The MWC will further employ its coordinator to work toward 1.) **furthering the organizational structure, 2.) achieving the MWC mission, 3.) assessing watershed management project concepts, and developing goals for a 4.) Watershed Restoration Plan.** Creation of a plan of action for implementing activities will be guided by the MWC board and will follow the schedule outlined above.

2 Months: October 2016 – December 2018

Developing a final report:

The MWC coordinator will work with the MWC board and the MWC volunteer publicist to complete a final report.

2 Months: August - September 2018



Musselshell River in the fall of 2014. Photo by Kestrel Aerial.

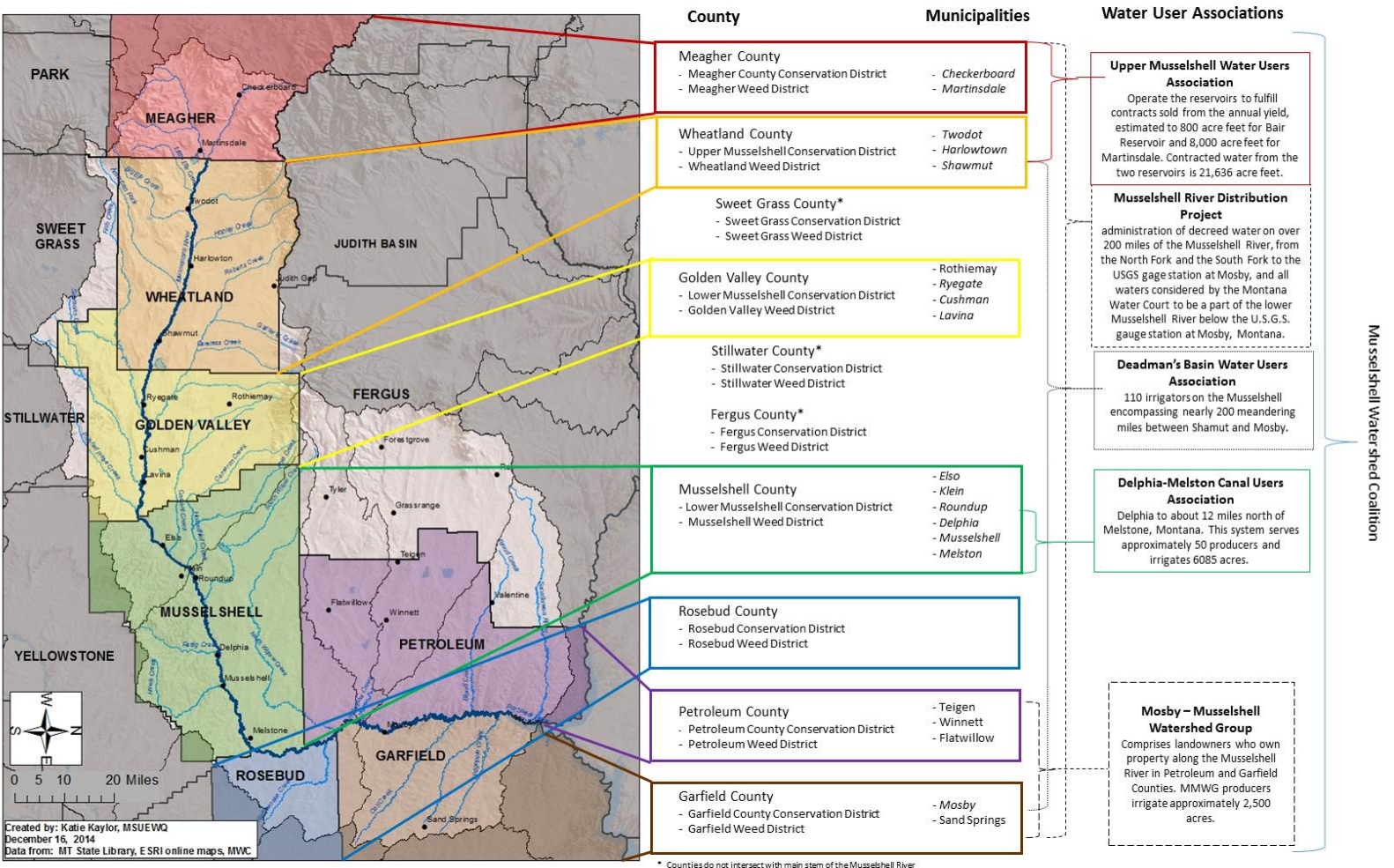
Evaluation Criteria

A: Watershed Group Diversity and Geographic Scope

A.1. Watershed Group Diversity

“That MWC has put together this coalition of stakeholders that spans the length of one of Montana’s longest rivers is truly remarkable. It may be the only example that I know of in Montana in a watershed of this size where all of the parties involved in river management are at one table, working together, and getting things done.” – Michael Downey, MT Department of Natural Resources and Conservation, Water Planning Bureau

Musselshell Project Partners Diagram



Privately-held agricultural property dominates the Musselshell Watershed, therefore, the MWC key partners consist of water user associations, conservation districts, and the landowners that they represent. The MWC also works closely with county and city governments located along the Musselshell River, with state and federal agencies rounding out the group of stakeholders. MWC regularly works with state agencies to share information at the local level about state projects taking place in or affecting the Musselshell Watershed.

The following is a list of entities that regularly attend MWC meetings and/or engage in specific MWC projects on a regular basis:

Deadman’s Basin Water Users Association	Counties
Upper Musselshell Water Users Association	Cities
Delphia-Melstone Water Users Association	Montana Watershed Coordination Council
Mosby-Musselshell Water User Group	Montana State University Extension Office
Central Montana Regional Water Authority	MT Department of Natural Resources and Conservation
Upper Musselshell Conservation District	Montana Fish Wildlife and Parks
Lower Musselshell Conservation District	Montana Department of Environmental Quality
Petroleum County Conservation District	US Geological Survey – Gaging Stations
Garfield County Conservation District	US Bureau of Land Management
Natural Resources and Conservation Service	
Weed Districts	

In addition, the MWC coordinates a stream gage contribution program among local partners along the Musselshell River. Eighteen local entities pay into this program to extend local support to the USGS stream gage program. These partners are:

Harlowton	Golden Valley County	Petroleum County CD
Ryegate	Musselshell County	Garfield County CD
Lavina	Petroleum County	Upper Musselshell WUA
Roundup	Garfield County	Deadmans Basin WUA
Melstone	Upper Musselshell CD	Delphia-Melstone Canal
Wheatland County	Lower Musselshell CD	Mosby Musselshell WUG

While the partners involved in the MWC are diverse, ranging from private landowners to city governments to Montana State University to MT DEQ, the MWC would like to reach an even greater diversity of stakeholders. This expansion of stakeholders includes more individual landowners, more county commissions and town councils, the natural resource extraction industry, the US Forest Service, and recreational groups. A small amount of oil and gas development exists on the lower reaches of the river. A coal mine operates on the middle reach of the river. Some outdoor recreation takes place along the entire length, with most occurring on the upper river reaches and reservoirs. The MWC would like to target these groups that have not yet been involved in the organization’s work.

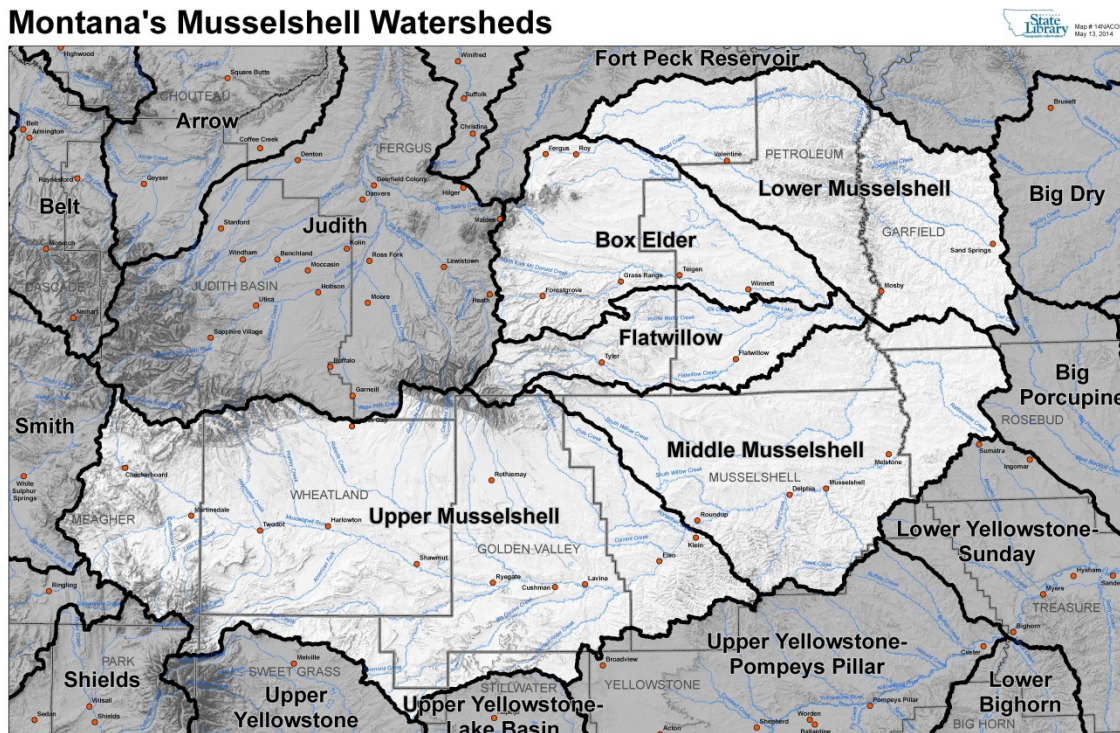
This expansion of stakeholders will require outreach activities, in particular, face-to-face visits. The Musselshell River lies in a remote and rural part of central Montana. MWC’s success is based on trust and understanding through acceptance of traditional agriculture cultural values such as hard work, honesty, and integrity. These relationships must be developed through face-to-face visits, phone calls, and hard copy correspondence. These traditional techniques in this area will establish a much stronger relationship and network than the new trends to communicate via social media and email.

In-person visits will be supported by an informational brochure about the Musselshell Watershed Coalition, a website with further information, paper and digital newsletters, and bi-monthly meetings open to all partners.

A.2. Geographic Scope

The MWC's roots lie in the battles over water distribution along the chronically dewatered Musselshell River. While water disagreements will always exist, the large altercations have been addressed through the Musselshell River Distribution Project and water users along the Musselshell River are moving toward a river-length approach to efficiently managing water. This effort is guided by the MWC. With water quantity and quality of the MWC as the guiding goals of the MWC, the entire length of the river must be considered. Therefore, the geographic focus of the MWC is the Musselshell River itself.

Montana's Musselshell Watersheds



The approach to focus on the Musselshell River itself has resulted in watershed-wide partnerships with conservation districts, county governments, and weed districts that focus on the remaining parts of the watershed. As the organization matures and partnerships continue to strengthen, the MWC will begin to reach landowners, irrigators, and town councils located along tributaries to the Musselshell.

B: Addressing Critical Watershed Needs

B.1. Critical Watershed Needs or Issues

The Musselshell Watershed suffers from four large issues:

1. Water Shortages
2. Detachment from floodplain/flood damage
3. Aging irrigation infrastructure
4. Water Quality: High salinity

Water Shortages

The Musselshell River flows commonly cease or become a trickle in late summer and early fall unless off-stream storage is supporting the system. Dewatering has been a persistent issue in the Musselshell River Basin. As early as 1949, a Water Resource Survey completed by the Montana State Engineers office classed the Musselshell River as an intermittent stream due to historically unreliable flows in the lower parts of the river. In 1991 the Montana State Legislature designated the Musselshell River as a chronically dewatered stream. In 2003, Montana Fish Wildlife and Parks identified 309 miles of the Musselshell River, extending from the Deadman's Basin Supply Canal to the mouth, as chronically dewatered. The partners in the MWC have always planned for water shortages, and will continue to do so. Since the flood of 2011, however, the area has experienced unpredictable weather events resulting in massive flooding rather than dewatering problems.

Floodplain Detachment and Flood Impacts

When the Milwaukee Railroad was constructed in the early 20th Century, the Musselshell River was dramatically altered to accommodate the railroad right-of-way. To minimize both the length of track and the need for bridges, the river was straightened and shortened. According to an article in the Billings Gazette (Graetz, 2003), "In building the route [through the Musselshell River Valley], workers moved the river's channel more than 100 times." The Musselshell River



The Egge Diversion Dam was flanked by the 2011 flood.

Assessment Report (Lower Musselshell Conservation District, 2004) describes 140 meanders as shortened or cut off from the river. Since the 1880s, the historic connectivity of the Musselshell River to its floodplain has been impacted by the river's response to this straightening.

The fact that the Musselshell River experienced three major floods since spring 2011 strongly influenced the desire for developing a Watershed Plan. The floods imparted a tremendous amount of change on the river that had seen little change

in the 30 years prior. That change is largely due to the 2011 flood, which was notable in terms of its very long duration of high flows. At Mosby, for example, a 10-year flood discharge was exceeded for 19 days at Mosby and for 22 days at Roundup. Previous to that, the longest duration of a flood of that magnitude was in 1967, when the 10-year event was exceeded for 11 days. The long period of duration and repeated peaks in flood stage caused dramatic changes to the Musselshell River and imparted extensive damage to infrastructure and property in the river corridor.

Major changes caused by the 2011 flood include the following:

- The flood caused 59 avulsions, resulting in abandonment of almost 37 miles of channel;
- Avulsions created just over nine miles of new channel;
- The river was shortened by 8 percent between Fort Peck Reservoir and Martinsdale;
- The most severe shortening was in the lowermost 89 miles of river, below Flatwillow Creek;

- In places, the river migrated several hundred feet during the flood, causing massive erosion and sediment delivery downstream;
- A total of 31 breaches through the abandoned railroad grade were mapped on post-flood air photos;
- Several diversion structures were flanked, buried, or abandoned;
- Dozens of irrigation pumps were abandoned;
- Floodplain deposition was several feet thick in some areas, commonly in agricultural fields; and,
- Vast carpets of cottonwood and willow seedlings were established by the flood.

Subsequent flooding around Roundup in Winter 2014 and on the lower river and Flatwillow Creek in August 2014 have further driven geomorphic change on the river, including bank erosion, channel movement, and floodplain inundation.

When the MWC formed in 2009, floodplain detachment was a little known issue. Severe flooding in recent years has brought this issue to the limelight and individuals and entities, such as the town of Roundup, are eager to discuss solutions for building long-term solutions.

Aging Irrigation Infrastructure

No new major irrigation infrastructure projects have been initiated since the construction of the Delphia-Melstone Canal in the mid-1950s. The other major projects - Deadman's Basin and Upper Musselshell - were completed in the 1940s. Only minor modifications have been made to the infrastructure supporting those projects. Repairs have been addressed over the years to avert disastrous failures, however a history of deferred maintenance combined with age has left today's users in a quandary of how to continue with their systems – which deliver the water that is key to operations and therefore economic stability in the Basin.

Since the formation of the MWC, the poor condition of the irrigation infrastructure has only deteriorated as the systems have had to endure historic flooding in three of the last five years. Work began immediately following the floods to repair damage and emergency needs have been addressed. However, the fragile state of the region's critical irrigation projects creeps closer and closer to a dangerous breaking point.

Water Quality

Formal water quality assessments on the Musselshell River are outdated. Therefore, the Montana Department of Environmental Quality (DEQ) has recently launched a watershed planning project in the Musselshell, including the Upper, Middle and Lower Musselshell, Flatwillow Creek and Box Elder Creek sub-basins. The goals of the project are to understand and describe the current aquatic resource conditions, to provide accurate information regarding water quality status and trends, and to support integration of aquatic resource protection and restoration into local planning efforts.

DEQ is applying a watershed risk assessment process to understand how human activities influence water quality. This risk assessment will help to differentiate the natural water quality condition from human influences, taking into account all reasonable land, soil, and water conservation practices. This project will involve the prioritization of which water bodies and

issues should be focused on considering the overall resource value and local priorities. Specific recommendations will be made by DEQ where their analyses indicate that certain actions can improve the quality of the water resources of the Musselshell Basin.

The Musselshell River is currently impaired for:

WATERBODY NAME / LOCATION	CAUSE NAME
MUSSELSHELL RIVER, North & South Fork confluence to Deadmans Basin Diversion Canal	Nitrogen (Total)
MUSSELSHELL RIVER, North & South Fork confluence to Deadmans Basin Diversion Canal	Phosphorus (Total)
MUSSELSHELL RIVER, North & South Fork confluence to Deadmans Basin Diversion Canal	Sedimentation/Siltation
MUSSELSHELL RIVER, Deadmans Basin Supply Canal to HUC boundary near Roundup	Nitrogen (Total)
MUSSELSHELL RIVER, Deadmans Basin Supply Canal to HUC boundary near Roundup	Phosphorus (Total)
MUSSELSHELL RIVER, Deadmans Basin Supply Canal to HUC boundary near Roundup	Sedimentation/Siltation
MUSSELSHELL RIVER, HUC boundary near Roundup to Flatwillow Creek	Low flow alterations
MUSSELSHELL RIVER, Flatwillow Creek to Fort Peck Reservoir	Low flow alterations

Local partners identified salinity levels in river water as a high concern and priority for action. Salinity testing since 2013 has verified high levels of salinity in lower Musselshell River water, especially during spring run-off and toward the end of the summer as low flows and high temperatures exacerbate the issue.

B.2. Watershed Group Contributions that Address Watershed Needs or Issues

Addressing Needs

In an effort to address needs expressed by landowners and water users along the Musselshell River, the MWC coordinated a planning project to identify and evaluate project priorities throughout the Basin. The planning process involved six landowner outreach meetings held in six locations along the 340-mile long river. Approximately 100 people attended these public meetings, a remarkable number for a planning project in an area with only 9,000 residents in the entire watershed. This planning effort addressed the needs of the entire river and included many tributaries.

The final Musselshell Watershed Plan identified and prioritized 19 individual rehabilitation projects and 14 study/planning efforts spanning the length of the river. Additionally, as part of the same effort, reconnaissance level engineering for the top three construction projects was completed. These projects address water shortages and infrastructure needs, flood damage and repair needs, habitat concerns, water quality concerns, and basin-wide planning concepts. This Musselshell Watershed Plan contains an implementation schedule with short-term and long-term goals, as well as recommendations for funding sources. The plan provides guidance to the MWC as well as its many partners for priority projects within the Musselshell Watershed.

Water Shortages

How the MWC Will Address: With this funding, the MWC will continue to bring partners together and to foster the discussion necessary to make watershed-wide water management decisions. The MWC will also continue to provide grant writing assistance and support for partner projects. The MWC will continue this work by holding bi-monthly meetings open for all

partners to attend, distributing a bi-monthly newsletter, and maintaining a website with resources and information for partners. The MWC will also continue to work with water user associations to seek funding for project implementation dollars for water efficiency improvements to irrigation systems.

MWC Accomplishments to Date: To address water shortages, the MWC works with water users along the Musselshell River to manage water distribution holistically. Additionally, the MWC created and coordinates a partnership among eighteen local entities to contribute funding to the USGS gaging stations along the Musselshell River. These stations were heavily relied upon during recent floods by managers as they triggered warnings to residents. The gages are also used extensively to determine diversion capabilities into Martinsdale and Deadmans Basin reservoirs. Gage data are accessed during the irrigation season to ensure water delivery on an equitable basis while maintaining sufficient stream flow to support river function and the fishery.



Pivot and field along the middle Musselshell River.

Enhancing Collaboration: Water users have remained the core partners in the MWC and the MWC will maintain these relationships as well as reach out to state, federal, or private entities that are finding solutions to water shortage issues. These groups include the Montana Bureau of Mines and Geology and the Montana Climate Office.

Floodplain Detachment and Flood Impacts

How the MWC Will Address: With this funding, the MWC will continue to bring together partners to discuss relevant research and projects to address floodplain detachment and flood impacts. Drought planning will investigate the effects of floodplain detachment on water shortages and the relationship between drought and subsequent flood impacts. The Roundup Reach Alternatives Analysis and Channel Migration Zone mapping projects will also help to address these issues.

MWC Accomplishments to Date: The MWC has responded to the floodplain and flood related issues by completing Best Management Practices for river health for use by landowners and public agencies, completing an aerial photo monitoring project, and by producing the Musselshell Watershed Plan. The imagery is being used to tell the story of the producers affected by the flooding, to illustrate the effects to river form and function, and to help inform the discussion of adaptation and management into the future.

Additionally, the MWC has provided much support to a natural storage assessment project to assess the capacity of floodplains and riparian areas to provide “natural storage” or “landscape storage” (also addressing water shortage). The study will apply different methods to assess how the river meanderbelt has changed and calculate how much floodplain loss has occurred over time. The MWC has hosted two meetings for the graduate student conducting the study to

present her findings to landowners on the Musselshell River.

Enhancing Collaboration: The MWC will bring together stakeholders to discuss this issue as well as host researchers in this field to better inform and educate MWC partners about floodplain detachment and possible recovery methods. This issue has affected every landowner, public and private, on the Musselshell and the ability of the MWC to provide interesting, educational, and useful information to address these problems will increase the relevance of and participation in watershed-wide collaboration.

Aging Irrigation Infrastructure

How the MWC Will Address: The MWC will gather information, conduct drought planning, and engage partners to learn more about infrastructure needs and long-term solutions. This will include assisting with grant applications for funding, bringing together partners that can work collaboratively toward the same goals, and providing information to the partners.

MWC Accomplishments to Date: In 2012, the MWC contracted with Geo-Spatial Solutions, Inc. to create a map-based web accessible inventory of irrigation infrastructure along the main stem of the Musselshell River. Separate field inventories were performed of the Upper Musselshell Water Users Association, the Deadman's Basin Water Users Association, and the Delphia-Melstone Canal Water Users Association assets.

Aerial photography, with photos taken during the 2011 and 2014 flood events, documents the river habitat as well as irrigation infrastructure over time. These photographs build the knowledge base for making long-term infrastructure decisions.

Since the completion of the Musselshell Watershed Plan, the MWC has worked to find grant funding for irrigation project repairs. The MWC is in the midst of a channel migration zone (CMZ) mapping project, with a feasibility study to be completed mid-May 2016. The MWC anticipates beginning mapping of CMZs in the summer of 2017. CMZ benefits to irrigators include providing information for making strategic decisions about locating infrastructure, such as diversions and headgates.

Enhancing Collaboration: The MWC will work to build the relationship between water user associations located within the watershed, as well as the relationship these groups have with state and federal agencies. In addition, the MWC will work to build collaboration between the irrigators and the cities and counties that rely on the agricultural industry for economic stability.

Water Quality

How the MWC Will Address: The MWC will continue to manage a citizen-based water quality monitoring program. The program plans to expand to include photo monitoring and assessment of sedimentation problems. The MWC will work on support activities and documentation for development of a watershed restoration plan (WRP). This development includes conducting outreach for the WRP process and benefits, identifying appropriate locations for a WRP, and drafting an outline. Conservation activities implemented under a WRP will lead to better water quality.

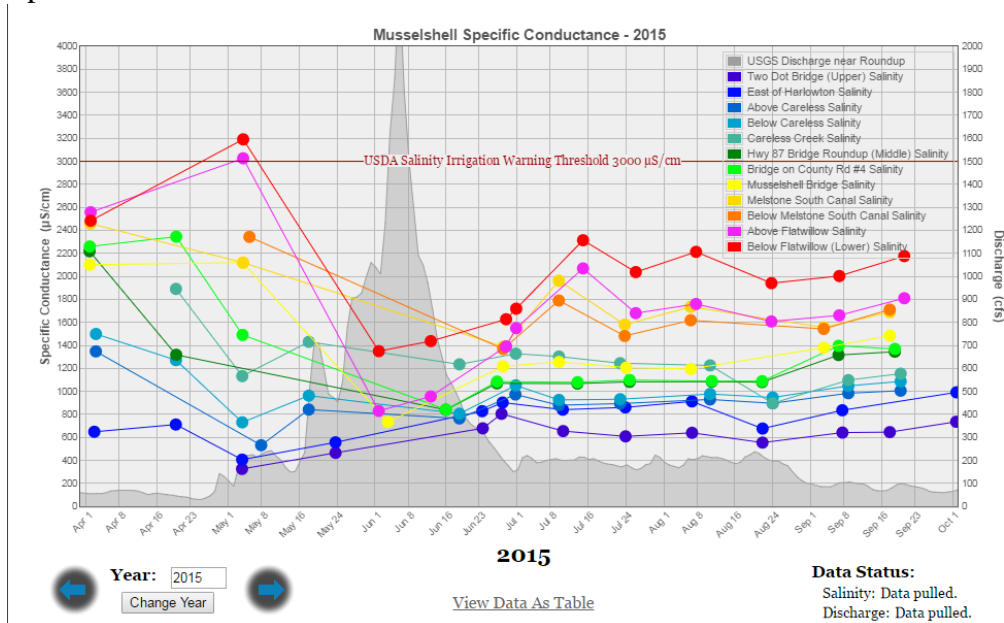
MWC Accomplishments to Date: The MWC feels that local involvement in state and federal projects impacting the region is imperative. Therefore, MWC has worked closely with the DEQ to host public meetings, arrange meetings with conservation districts and county commissions, and to provide time during the MWC meetings for DEQ to present on the project and its results.



The MWC salinity monitoring project is a local volunteer effort that started in 2013 under guidance from the Montana State University Extension Office to monitor long-term electrical conductivity conditions along the mainstem of the Musselshell River and major tributaries.

The study focuses on salts in irrigation water. The data are being paired with flow measurements to establish relationships between flow and salinity. The statistical relationships established through this monitoring project will in turn be used to inform best irrigation practices throughout the Musselshell Valley.

Enhancing Collaboration: The MWC will continue to expand its volunteer base, engage local partners, including school groups, and share its water quality data in an effort to expand participation and collaboration.



2015 Salinity data gathered by volunteers and available online.

C: Implementation and Results

C1. Understanding of and Ability to Meet Program Requirements

“[MWC] is a model for how much you can achieve when you pull that off, when you get everyone together.” - Karin Boyd, the owner of Applied Geomorphology in Bozeman

Refer to the Approach section on pages 7-9 for more information.

Schedule for Completion	Watershed Activity and Major Tasks	Total Cost	Cost-Share *	Bureau
October 2016 - September 2018	Further Development of a Watershed Group	\$ 40,640.00	\$ 8,950.00	\$31,690.00
October 2016 - Sept 2018	Staff a coordinator			
October 2016 - Sept 2018	Hire a facilitator			
October 2016 - Sept 2018	Outreach: Bi-monthly meetings			
October 2016 - Sept 2018	Outreach: Newsletters			
August 2017	Develop Bylaws			
August 2017	Adopt Articles of Incorporation			
October 2017	Outreach: Brochure			
December 2017	Outreach: Website			
Complete	Development of a Mission Statement	\$ -	\$ -	\$ -
December 2016 - February 2018	Development of Watershed Management Project Concepts	\$ 5,625.00	\$ 1,500.00	\$ 4,125.00
October 2016 - Sept 2018	Development of a Watershed Restoration Plan	\$ 29,650.00	\$ 10,000.00	\$19,650.00
October 2016 - Sept 2018	Staff a water quality volunteer program manager			
January 2017 - June 2018	Develop goals			
January 2017 - June 2018	Public outreach on WRP and process			
January 2017 - June 2018	Create outline			
January 2017 - June 2018	Identify appropriate locations for WRP			
	Total for Activity Implementation	\$ 75,915.00	\$ 20,450.00	\$55,465.00
	Indirect Cost 10%	\$ 5,696.50	\$ 150.00	\$ 5,546.50
	Total Project Cost	\$ 81,611.50	\$ 20,600.00	\$ 61,011.50
* Cost share sources				
	Montana Watershed Coordination Council (cash - awarded)		\$ 2,750.00	
	Montana DEQ (cash - awarded)		\$ 5,000.00	
	Soil and Water Conservation Districts of Montana (cash -		\$ 1,600.00	
	MWC Board (in-kind)		\$ 5,000.00	
	MWC Publicist (in-kind)		\$ 1,000.00	
	MWC Facilitator (in-kind)		\$ 1,000.00	
	Salinity Program Volunteers (in-kind)		\$ 4,250.00	
			\$ 20,600.00	

The MWC and Petroleum County Conservation District (PCCD) have experience working together on a project similar in scope and scale. From May 2014 – September 2015, the PCCD administered the watershed planning grant for the Musselshell Watershed Plan while the MWC acted as the project coordinator. The Montana Department of Natural Resources and Conservation awarded this \$75,000 grant, which covered geomorphologist, GIS specialist, engineering, project coordinator, and administrative fees. The project included hosting six stakeholder meetings, meeting with target partners, and meeting with the MWC to gather local input. The MWC constituted a ranking committee made up of representative members of the

watershed to prioritize submitted projects and to develop an implementation schedule. Upon completion of the final plan, the MWC visited partners along the Musselshell River and distributed the plan.

The PCCD and MWC also work jointly to coordinate the gaging station partnership program, with PCCD working on the administrative side to bill partners for their share of the cost and to send the funds to the USGS. The MWC meets with partners and provides information and requests their involvement.

The MWC also has experience working in a similar way with other local partners. Working with the Central Montana Rural Development Council through the City of Roundup, the MWC coordinated an irrigation management program grant. This effort worked to establish a toolkit to inventory describe, analyze and prioritize water management activities on the Musselshell River. The grant was finalized in December 2015 and the MWC partners continue to utilize a GIS database developed during the project that contains irrigation infrastructure information for each of the four water user groups.

Currently, the MWC has partnered with the Lower Musselshell Conservation District to complete an alternatives analysis for a suite of projects within a four-mile stretch of the Musselshell River near Roundup. This grant funded project will be complete in the fall of 2016.

C2. Building on Relevant Federal, State, or Regional Planning Efforts

Local Plan

The activities of the MWC lead directly to implementation of the locally led Musselshell Watershed Plan – an effort to develop a long-range, basin-wide water management plan to provide a strategy for project identification, prioritization, and implementation.

Regional Plan

The Musselshell River Basin was part of the Lower Missouri River Basin Advisory Council (LMR BAC) in the development of the Montana Water Supply Initiative for the Montana Department of Natural Resources and Conservation (DNRC). The LMR BAC consisted of 20 members that worked together to articulate water resource issues of concern starting in August of 2013. Six scoping meetings were held that fall, and issues raised were winnowed down to five core topics including Surface Water Availability and Quality, Groundwater Availability and Quality, Water Management, Future Needs, and Implementation Strategies.

Montana State Water Plan

MWC activities relate directly to the Montana State Water Plan. The MWP planning elements are broad-ranging and include everything from specific on-the-ground projects focused on saving water to large watershed-wide management efforts, such as a weed management plan, to organizational planning for the MWC. The priority projects identified in the MWP involve planning for water supply and demand, water information, ecological health and environment, and collaborative water planning and coordination as outlined according to Montana State Water Plan Recommendations in italics below.

1. Water Supply and Demand

Achieving greater water quantity drives the partners of the MWC. The MWP created a plan for

completing projects that will improve water efficiency and conservation. These projects will require partner planning to complete new construction as well as rehabilitate existing irrigation infrastructure.

- a. *Support Water Use Efficiency and Water Conservation*
 - b. *Increase Flexibility to Manage Available Water Supplies Through Storage and Rehabilitation of Existing Infrastructure*
2. *Water Information*

The Musselshell Watershed is fortunate to already have the Musselshell River Distribution Project in place. However, better, more detailed information on water use and availability will continue to inform water users and allow for better water management decisions throughout the watershed.

- a. *Monitor Water Supply and Distribution*
3. *Ecological Health and Environment*
- a. *Support Proactive, Coordinated Efforts to Reduce Invasive Species and Protect Endangered Species in Montana*
4. *Collaborative Water Planning and Coordination*

The MWC believes that collaborative water planning and coordination must occur in order to successfully progress toward increased water quantity, better water quality, and preserved or restored habitats. This planning element is the most critical piece to completion of any MWC activities. The MWC already implements this practice of collaborative water planning and coordination and will continue to improve and strengthen its work to bring together the Musselshell River partners.

- a. *Expand Support for Basin and Community Based Watershed Planning*
- b. *Encourage Collaboration, Coordination, and Communication across Local, State, and Federal Agencies and Tribal Governments*
- c. *Develop a Plan to Deliver Water Related Training, Education and Outreach*

Montana Nonpoint Source Management Plan

Many projects prioritized by the MWC address specific strategies for agricultural contributions to NPS pollution.

1. *Improve communication on NPS pollution issues among Montana's agricultural community.*

As the MWC works to complete the MWP Plan, communication among Montana's agricultural community is critical to the successful completion of projects. Each of MWC's projects requires the involvement of private landowners and/or water associations and/or conservation districts. Each of these entities represents the agricultural community. Also, as water quality benefits comprise a critical element to project priority, the project benefits discussions will improve communications on NPS pollution issues.

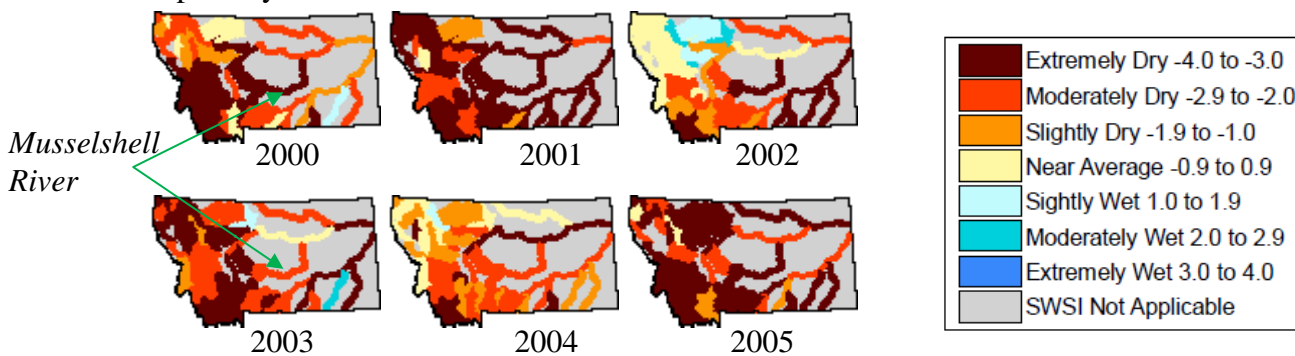
- a. *Face-to-face communication*
 - b. *Mutual respect and support*
2. *Evaluate NPS pollution reduction efforts and activities*
- a. *Inventory and monitor potential sources and types of NPS pollution.*

D: Building Resilience to Drought

While the Musselshell Watershed experienced three 100-year or more flood events in 2011, 2013, and 2014, the area also sees extreme drought. 2012, for example, saw such dry conditions that wildfires ravaged the area, warranting a Presidential disaster declaration for Musselshell County. The dry conditions of the Musselshell River are partly attributed to the arid climate in which it is located.

Traditionally, the area’s water users plan for much less water than “normal” because of the much more frequent occurrence of drought. The Musselshell is a prime example of changing weather extremes, with spring melts and runoff taking place earlier in the year, unpredictable major weather events, and weather systems that change direction and intensity by the hour.

The maps below, compiled by the Natural Resources and Conservation Service, show surface water supply in Montana by major river systems. These maps show surface water conditions from September 2000 – May 2005, a prolonged drought for much of Montana, especially the Musselshell Watershed.



The Missouri Headwaters Basin in southwest Montana was selected as one of two national pilot projects by the National Drought Resilience Partnership Program to demonstrate collaborative efforts to build resilience in communities. The partners in these basins are thinking more strategically about how to pull existing information and resources together to address drought in the context of community disaster preparedness. This comprehensive planning for community resilience relies on cooperative watershed management planning. The Montana Demonstration project of the National Drought Resilience Partnership is completing a webinar series with tools for watershed coordinators, including a model for how to conduct drought planning in a watershed. The MWC will capitalize on this new program through its coordinator implementing these steps to include drought scenarios in the Musselshell Watershed Plan. Additionally, the coordinator will work with Disaster and Emergency Services staff from partner communities to include drought planning in their community comprehensive plans.

The MWC serves the role in the Musselshell Watershed of clearinghouse for water-related information and resources. With drought information included in this clearinghouse, our partner communities will be able to incorporate drought planning as they work to build stronger and more resilient communities.

Letters of Support

Letters of support testify to the diversity and geographic scope of the MWC. Letters of support from the following entities are attached to this application:

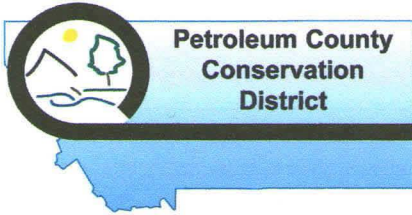
MT DNRC
MT Fish, Wildlife, and Parks
Upper Musselshell Water Users Assoc.
Deadman's Basin Water Users Assoc.
Delphia Melstone Canal Water Users Assoc.
Mosby Musselshell Water Users Group
Garfield County Conservation District
Lower Musselshell Conservation District
Montana Salt Cedar Team
Montana State University Extension
City of Roundup
MT Department of Environmental Quality
Montana Watershed Coordination Council

Required Permits or Approvals

This project does not require any permits or approvals in order to be implemented.

Official Resolution

An official resolution from the Petroleum County Conservation District board of supervisors follows.



Petroleum County Conservation District
P.O. Box 118, Winnett, MT 59087-0118
406-429-6646 ext. 104
petroleucd@midrivers.com
Local Common Sense Conservation

**Ralph Corbett, Chairman, Craig Iverson - Vice Chair, Laura Kiehl - Treasurer,
Rodney Rowton- Supervisor, Diane Ahlgren - Supervisor & MMWG**

RESOLUTION

Petroleum County Conservation District
Board of Supervisors
Winnett, MT 59087

RESOLUTION AUTHORIZING APPLICATION FOR A COOPERATIVE WATERSHED MANAGEMENT GRANT FROM THE BUREAU OF RECLAMATION 2016 WATERSMART GRANT PROGRAM TO EXPAND THE MUSSELHELL WATERSHED COALITION

WHEREAS, management, control and preservation of water resources is a matter of major concern for the sustainability of the ecology and economic development of Petroleum County and the greater Musselshell River Watershed; and

WHEREAS, the Musselshell Watershed Coalition is the local watershed group formed to work collaboratively with all interested groups on water resources issues in the Musselshell River Watershed; and

WHEREAS, the Petroleum County Conservation District wishes to facilitate the implementation of this project for the benefit of the watershed; and

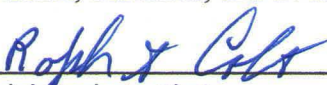
WHEREAS, the Petroleum County Conservation District will serve as the grant sponsor and fiscal agent as a participant in the Musselshell Watershed Coalition; and

WHEREAS, the Musselshell Watershed Coalition has secured and will continue to secure cash contributions as well as in-kind contributions for this project; and

WHEREAS, the Petroleum County Conservation District will work with Reclamation to meet established deadlines for entering into a financial assistance agreement;

BE IT FURTHER RESOLVED, that the Petroleum County Conservation District has reviewed and approves the grant application prepared and that the Administrator and the Musselshell Watershed Coalition coordinator are hereby authorized and directed to file such application and execute a grant agreement with the WaterSMART: Cooperative Watershed Management Program Grants for FY 2016.


PASSED AND ADOPTED by the Board of Supervisors of the Petroleum County Conservation District, Montana, this 27th day of April, 2016.



Ralph Corbett, Chair

Petroleum County Conservation District Board

Attest:



Carie Hess
Administrator of the Board

Project Budget

Table 1 - Summary of Non-Federal and Federal Funding Sources

Funding Sources		Funding Amount
Non-Federal Entities		
1	MWC Partners In-kind	\$ 5,000.00
2	MWC Facilitator In-kind	\$ 1,000.00
3	MWC Publicist In-kind	\$ 1,000.00
4	MWC Water Quality Volunteers	\$ 4,250.00
5	Montana Watershed Coordination Council	\$ 2,750.00
6	Montana Department of Environmental Quality	\$ 5,000.00
7	Soil and Water Conservation Districts of Montana	\$ 1,600.00
Non Federal Subtotal		\$ 20,600.00
Funding Sources		Funding Amount
Other Federal Entities		
1	-	\$ -
Other Federal Subtotal		\$ -
Requested Reclamation Funding		\$ 61,011.50
Total Study Funding		\$ 81,611.50

Table 2 – Project Budget: Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed

Budget Item Description	Computation		Quantity Type (hours/days)	Non-Federal	Reclamation Request	Total Cost
	\$/Unit	Quantity				
Salaries and Wages						
Coordinator	20/hour	1440	60 hours/month	\$ 2,000.00	\$ 26,880.00	\$ 28,880.00
Water Quality Volunteer Program Coordinator (WCVP)	15/hr	667	8,000/year	\$ 6,000.00	\$ 10,000.00	\$ 16,000.00
Facilitator	50/hr	40	1,000/year	\$ 1,000.00	\$ 1,000.00	\$ 2,000.00
MWC Water Quality Volunteers in-kind	25/hour	170		\$ 4,250.00		\$ 4,250.00
Partners in-kind	25/hour	200		\$ 5,000.00		\$ 5,000.00
MWC Publicist in-kind	25/hour	40		\$ 1,000.00		\$ 1,000.00
Fringe Benefits						
Coordinator	5.945/hr	1440	Leave and Liabilities		\$ 8,560.00	\$ 8,560.00
Travel						
Coordinator	.55/mile	7500	3,750 miles/year	\$ 300.00	\$ 3,825.00	\$ 4,125.00
WQVP Coordinator	.55/mile	5000	2,500 miles/year	\$ 600.00	\$ 2,000.00	\$ 2,600.00
Materials/Supplies						
Printer/Copier/Scanner	\$500	1	One office machine		\$ 500.00	\$ 500.00
Paper/Ink					\$ 1,000.00	\$ 1,000.00
Postage					\$ 1,000.00	\$ 1,000.00
Other						
Professional printing	0.5	1	Brochure, newsletter, invitations, etc.	\$ 300.00	\$ 700.00	\$ 1,000.00
Total Direct Costs					\$ 55,465.00	\$ 75,915.00
Indirect Costs - 10%	0.1		Grant Administration	\$ 150.00	\$ 5,546.50	\$ 5,696.50
Total Project Costs				\$ 20,600.00	\$ 61,011.50	\$ 81,611.50

Budget Narrative

Salaries and Wages

Program Manager:

MWC Coordinator, Laura Nowlin

\$20/hour

720 hours/year

Coordinator will perform tasks listed in the project approach and implementation sections. These tasks include further development of the MWC through guiding the process to adopt bylaws and articles of incorporation, developing outreach materials (brochure, newsletters, website), coordinating bi-monthly meetings, and visiting MWC partners. The coordinator will compile drought resources and follow the National Drought Resiliency Partnership model developed by the Montana Demonstration Project to do drought planning in a watershed. The coordinator will ammend drought resiliency projects to the Musselshell Watershed Plan. The coordinator will also begin development of a watershed restoration plan (WRP) by working with the MWC board and partners to develop goals for the WRP, conducting public outreach for what an WRP is and the process to complete one, identifying appropriate loactions for WRPs to be completed, and creating an outline for the WRP.

MWCC Funding	\$	2,000.00
Reclamation	\$	26,880.00

Water Quality Volunteer Program (WCVP) Coordinator

\$15/hr

667 hours/year

The WCVP Coordinator manages citizen-based salinity monitoring in 12 locations on the Musselshell River. The coordinator works with the Water Quality office of Montana State University to ensure quality control of the program. The coordinator also trains volunteers in the sampling methods and care of data, as well as visiting sites throughout the sampling season to verify data and offer volunteer support. The coordinator also visits schools and other area interest groups and provides education on watershed health.

MT DEQ	\$	5,000.00
SWCDMI	\$	1,000.00
Reclamation	\$	10,000.00

Facilitator

\$55.50 /hour

18 hours/year

The facilitator attends and facilitates six meetings per year. These meetings have an average attendance of 25 people.

Facilitator in-kind	\$	1,000.00
Reclamation	\$	1,000.00

MWC Partners

\$25/hour

100 hours/year

MWC parterns and board members donate time to MWC projects throughout the year. The board will be spending time developing and adopting bylaws and articles of incorporation as well as providing oversight of all outreach materials. The board and other partners will contribute to drought resiliency planning and to the watershed restoration plan early development stages.

Partners In-kind	\$	5,000.00
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MWC Publicist

25/hour

20 hours/year

The MWC publicist will review all outreach material as well as taking meeting minutes and providing meeting notices in the local news outlets.

Publicist In-kind \$ 1,000.00

MWC Water Quality Volunteers

\$25/hour 85 hours/year

Five water quality monitoring volunteers take samples at a total of twelve locations along the Musselshell River during the irrigation season (April - October). The volunteers also upload the data and photos to a website, making the information instantly available to irrigators and water managers.

Volunteers In-kind \$ 4,250.00

Total Other Funding \$ 19,250.00

Total Reclamation Request \$ 37,880.00

Total Salaries and Wages \$ 57,130.00

Fringe Benefits

MWC Coordinator

\$5.945/hour 720 hours/year

The Coordinator is employed by the Petroleum County Conservation District and receives leave and liability benefits according to the State of Montana rates for Conservation Districts. These

Leave Sick Leave 0.04611

Annual Leave 0.05778

Company Paid Liabilities

Social Security 0.062

Medicare 0.0145

Unemployment Insurance 0.0015

Worker's Compensation 0.0137

PERS 0.0827

Total Reclamation Request \$ 8,560.00

Total Fringe Benefits \$ 8,560.00

Travel

Coordinator

3,750 miles/year \$2062.50/year

The Musselshell Watershed Coalition covers vast distances, with partners ranging from the Meagher County seat in White Sulphur Springs to the Garfield County seat in Jordan, a distance of 243 miles. MWC meetings are currently held in Roundup, a distance of 45 miles from the Petroleum County Conservation District in Winnett, where the coordinator is employed. The Coordinator also travels to Helena, Montana, for meetings with state agencies and for legislative testimony for project grants. The number of miles is based on actual travel from 2014 and 2015.

MWCC \$ 300.00

Reclamation \$ 3,825.00

WCVP Coordinator

2,500 miles/year \$1375/year

The Water Quality Volunteer Program Coordinator travels from Mosby to Martinsdale, Montana along the Musselshell River in order to meet with and train volunteers in taking water quality

samples. The coordinator also travels to Bozeman, Montana for continued training with Montana State University Extension. In addition, the program coordinator visits schools and other interest groups to provide watershed health education.

	SWCDMI	\$	600.00
	Reclamation	\$	2,000.00
<hr/>			
Total Other Funding		\$	900.00
Total Reclamation Request		\$	5,825.00
Total Travel		\$	6,725.00

Equipment

No equipment is being purchased for this project.

Materials and Supplies

Office Supplies

Currently, the MWC relies on partner entities, in particular Natural Resource and Conservation Service field offices and Conservation Districts to contribute printing and copying costs. As the MWC expands, its printing and copying needs will outgrow the ability of these entities to donate these services. One office-grade print/copy/scan machine will be purchased. Prices have been compared to reach the cost quoted in this budget. Paper and ink for 4,000 copies will be purchased and mailing supplies and postage to mail the newsletter, outreach materials, meeting invitations and agenda, and special meeting notices will also be purchased.

Print/Copy/Scan machine	1 machine	\$	500.00
Copies	4,000 @ \$0.25/copy	\$	1,000.00
Mailing Supplies and Postage	Newsletter 6x/year	\$	1,000.00
	Meeting invitations and agendas		
	6x/year		
	Outreach materials		
	Special meeting invitations		
<hr/>			
Total Reclamation Request		\$	2,500.00
Total Materials and Supplies		\$	2,500.00

Contractual

There will be no contractual work done under this funding.

Other

Professional Printing \$.50/page 2,000 pages \$1,000
 Professional printing of outreach materials presents a polished image of the MWC. Professional printed materials will be more appealing and can be mass produced at a less expensive rate than printing and finishing in-house.

	MWCC	\$	300.00
	Reclamation	\$	700.00
<hr/>			
Total Other Funding		\$	300.00
Total Reclamation Request		\$	700.00
Total Other		\$	1,000.00

Indirect Costs

Grant Administration Fee 10% \$ 5,696.50

The Petroleum County Conservation District will serve as the fiscal agent for this grant and will receive a 10% administration fee. When allowed by grant programs, 10% is a standard administration fee rate for Montana Conservation Districts.

	MWCC	\$	150.00
	Reclamation	\$	5,546.50
<hr/>			
Total Other Funding		\$	150.00
Total Reclamation Request		\$	5,546.50
Total Indirect Costs		\$	5,696.50

Total Costs

	Non-Federal Cost Share	\$	20,600.00
	Federal Cost Share	\$	61,011.50
<hr/>			
Total Project Costs		\$	81,611.50

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION



STEVE BULLOCK, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE: (406) 444-2074
FAX: (406) 444-2684

PO BOX 201601
HELENA, MONTANA 59620-1601

April 29, 2016

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for the Musselshell Watershed Coalition

Mr. Olson and the Grant Review Committee:

On behalf of the Water Management Bureau, I am writing to encourage your full support of the Musselshell Watershed Coalition's Cooperative Watershed Management application, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*. Over the last several years, MT DNRC has had many opportunities to work with this outstanding organization on several water management, distribution and assessment projects, and we fully support their efforts.

The MWC serves as the central convening organization for diverse stakeholders from communities throughout the entire 300+ miles of the Musselshell River and its watershed. Through this collaborative work they are able to effectively address water quantity and quality issues that result in improved water quality, distribution and conservation. Later this summer we will initiate drought and community resilience planning in the basin, based upon and as the next stage of the MT Drought Resilience Partnership project.

As a Montana state agency we truly value the connection to the community based organizations such as the MWC, to provide the accessibility and the relationships to the local water users. We could not do our job effectively without the local partnerships. I encourage you to fully fund the Musselshell Watershed Coalition's grant application.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Azevedo", written over a horizontal line.

Paul Azevedo
MT DNRC Water Management Bureau Chief
pazevedo@mt.gov
406-444-6635



Montana Fish, Wildlife & Parks

P. O. Box 200701
Helena, MT 59620-0701
406-444-3183
FAX:406-444-4952

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

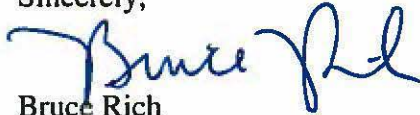
Montana Fish, Wildlife and Parks has long been a member of the Musselshell Watershed Coalition (MWC). This important group has successfully worked to improve water supply and habitat within the Musselshell basin. Montana Fish, Wildlife and Parks supports further development of the MWC and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. Three overarching goals drive the group: to achieve a desirable quality of life for water users, residents of the Musselshell Valley, and for the Musselshell River itself. The MWC focuses on watershed-wide collaboration strategies necessary for implementing projects that result in the improvement of water quality, the conservation of water, the reduction of conflicts over water and improvements in the aquatic and riparian health of the river.

MWC past successes include the completion of the Musselshell Watershed Plan, which is now in the beginning stages of implementation; compiling a River Assessment Triage Team following the 2011 flood to meet with landowners and develop Best Management Practices for activities in response to flood related damage; bringing together 18 partners along the Musselshell River to contribute funding to the USGS gauging station system; establishing and coordinating a citizen-based salinity monitoring program; bringing together a diverse range of partners bi-monthly to discuss issues and to provide project updates; coordinating a GIS Database that is used in making water management decisions; and spreading knowledge, through a watershed history and aerial photography project, about the Musselshell Watershed to others.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC, as well as Montana Fish, Wildlife and Parks, to achieve these goals. More information can be found at <http://musselshellwc.wix.com/musselshellwc>.

Sincerely,

A handwritten signature in blue ink that reads "Bruce Rich". The signature is fluid and cursive, with the first name "Bruce" being larger and more prominent than the last name "Rich".

Bruce Rich
Fisheries Division Administrator
Montana Fish, Wildlife and Parks

CC: Michael Ruggles
Ken Frazer
Barb Beck

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The Upper Musselshell Water Users Association (UMWUA) supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

The MWC has been key to implementation of the following: completion of Musselshell Watershed Plan, which is now in the beginning stages of implementation; compiling a River Assessment Triage Team following the 2011 flood to meet with landowners and develop Best Management Practices for activities in response to flood related damage; bringing together 18 partners along the Musselshell River to contribute funding to the USGS gaging station system, establishing and coordinating a citizen-based salinity monitoring program, bringing together a diverse range of partners bi-monthly to discuss issues and to provide project updates, coordinating a GIS Database that assists in making water management decisions; spreading more knowledge, through a watershed history and aerial photography project, about the Musselshell Watershed to others.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as the UMWUA to achieve these goals.



Leon B Hammond
Water Project Manager
Upper Musselshell Water Users Assn

Teri Hice, Project Manager
Deadman's Basin Water Users' Association

125 Autumn Road
Roundup, MT 59072
Phone (406) 323-3533
Fax (406) 323-3533
kthice@midrivers.com

April 26, 2016

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The Deadman's Basin Water Users' Association (DBWUA), an irrigation project located in the mid-Musselshell River basin and consisting of 150 water users, supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

Some of the MWC past successes include: bringing together 18 partners along the Musselshell River to contribute funding to the USGS gaging station system, establishing and coordinating a citizen-based salinity monitoring program, and bringing together a diverse range of partners bi-monthly to discuss issues and to provide project updates.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as the Deadman's Basin Water Users' Association to achieve these goals.

Sincerely,



Teri Hice, Project Manager

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

As manager of Delphia Melstone Canal Water Users Association, I support the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

MWC past successes include: completion of Musselshell Watershed Plan, which is now in the beginning stages of implementation; compiling a River Assessment Triage Team following the 2011 flood to meet with landowners and develop Best Management Practices for activities in response to flood related damage; bringing together 18 partners along the Musselshell River to contribute funding to the USGS gaging station system, establishing and coordinating a citizen-based salinity monitoring program, bringing together a diverse range of partners bi-monthly to discuss issues and to provide project updates, coordinating a GIS Database that assists in making water management decisions; spreading more knowledge, through a watershed history and aerial photography project, about the Musselshell Watershed to others.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as Delphia Melstone Canal Water Users Association to achieve these goals.

Sincerely,

Lynn Rettig – Manager – Delphia Melstone Canal Water Users Association

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The Mosby Musselshell Watershed Group (MMWG) is a group of producers who began in 2005 on the lower part of the Musselshell River. They have been involved with the Musselshell Watershed Coalition since its inception, and support the further development of the Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

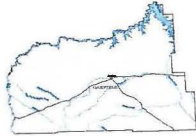
The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

MWC has helped the MMWG with goals of noxious weed management in the river corridor, off stream water storage possibilities, river water salinity issues, and irrigation water management. Another big benefit has been the communication and ability to coordinate with upstream users. Sometimes it is forgotten how uses and management upstream can impact the lower producers and the MWC has been very successful at facilitating and coordinating those issues

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as the MMWG to achieve these goals.

Sincerely

Diane Ahlgren, MMWG sec.



GARFIELD COUNTY CONSERVATION DISTRICT
JORDAN SERVICE CENTER
P.O. BOX 369 - JORDAN, MT 59337
Phone: (406) 557-2740 Fax: (406) 557-6191

April 18, 2016

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The Garfield County Conservation District has been actively involved with the Musselshell Watershed Coalition (MWC). As a member of the MWC the district is committed to these projects and helping the group meet its goals. The Garfield County Conservation District supports the further development of the Musselshell Watershed Coalition and its project, Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

The MWC has several noteworthy successes: bringing together a diverse group of people (landowners and agencies) for bi-monthly meetings to discuss issues and to provide project updates; implementation of the beginning stages of the Musselshell Watershed Plan; establishing and coordinating a citizen-based salinity monitoring program; and coordinating a GIS Database that assists in making water management decisions; spreading more knowledge, through a watershed history and aerial photography project, about the Musselshell Watershed to others.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as the Garfield County Conservation District to achieve these goals.

Sincerely,

Dean Rogge, chairman

The Garfield County Conservation District



Lower Musselshell Conservation District

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

109 Railway East
Roundup, Montana 59072

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

Lower Musselshell Conservation District (LMCD) encompasses Musselshell and Golden Valley Counties, and is part of the Musselshell River watershed. Because of the flooding events of 2011 and 2014, the river has gone through some dynamic changes. LMCD is responsible for issuing 310 permits for work on the river, and has visited 201 sites since the 2011 flood. We support a planning process that would coordinate efforts by the landowners to protect their agricultural interests and also achieve a healthy river. Therefore, LMCD supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC was formed to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. MWC compiled a River Assessment Triage Team following the 2011 flood to meet with landowners and develop Best Management Practices for activities in response to flood related damage. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water. The Musselshell Watershed Plan, which was recently completed, is now in the beginning stages of implementation. MWC has organized 18 partners to contribute funding for the USGS gaging station system, continues a salinity monitoring program, and holds bi-monthly meetings where the partners discuss issues and provide project updates.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as Lower Musselshell Conservation District to achieve these goals.

Sincerely,

Bill Bergin, Jr., Chairman
Lower Musselshell Conservation District
109 Railroad Ave. East
Roundup, MT 59072



*Working together to achieve strategic control,
education, and communication
to suppress saltcedar on Montana's waterways.*

c/o MRCDC
1101 11th Ave.
Helena, MT 59601
Phone: (406) 454-0056
mrcdc@macdnet.org
www.MissouriRiverCouncil.info

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The Montana Saltcedar Team, a collaborative group dedicated to suppressing saltcedar in the Missouri River watershed, supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water. This partnership strategy makes MWC a valuable partner of the Montana Saltcedar Team as we attempt to manage saltcedar on a watershed basis, across multiple landownerships.

The MWC has an impressive history of coordination and conservation and funding for a full-time Coordinator will further enhance their record of success. The Montana Saltcedar Team is eager to focus projects in the Musselshell watershed and welcomes the opportunity to work directly with the MWC to ensure full partner participation in any future projects. The grassroots membership of the organization encourages private landowner participation which is important to invasive plant management strategies.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. We fully support the expansion of the MWC and know that increased capacity for this group will result directly in increased benefits to the watershed.

Sincerely,

A handwritten signature in black ink that reads "Rachel Frost". The signature is written in a cursive, flowing style.

Rachel Frost,
For the Montana Saltcedar Team

April 24th 2016

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

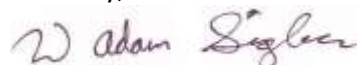
Dear Mr. Olson;

Montana State University Extension Water Quality (MSUEWQ) provides technical assistance to watershed groups across Montana and supports citizen science to enhance water resource management. MSUEWQ has been working with the Musselshell Watershed Coalition (MWC) since 2008 and has been highly impressed by the coalition's accomplishments. MSUEWQ enthusiastically supports the further development of the MWC and its project: *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implement projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water. The MWC's effort to coordinate a response to the 2011 flood event that incorporates more holistic management ideas and sustainability looking forward is highly commendable. The MWC's bi-monthly meetings and coordination of partners to help amicably address water quantity issues is very compelling. The coalition's goal to make well informed decisions in a cooperative framework is exemplified by their having brought 18 partners together to provide funding for the USGS gages on the river. These successes are highly motivational in the decision to continue to support the MWC's citizen science team.

The diversity of partners brought to the table and MWC's overarching cooperation approach is the right recipe to address water quality, quantity and habitat issues. I believe that support for the expansion of the MWC through this funding opportunity will allow citizens of the Musselshell Watershed and all the agency stakeholders to better achieve water resource management goals.

Sincerely,



W. Adam Sigler
Water Quality Associate Specialist
Montana State University Extension
Phone: (406) 994-7381; Email: asigler@montana.edu
Website: <http://waterquality.montana.edu/>

**Land Resources and
Environmental
Sciences**

334 Leon Johnson Hall
P.O. Box 173120
Bozeman, MT 59717-3120

Tel (406) 994-7060
Fax (406) 994-3933
landresources.montana.edu

JAMES SCHLADWEILER, President of Council
TANYA LANTER, Clerk/Treasurer
VIOLET OLSEN, Assistant Clerk
LON E. SIBLEY, Director of Public Works
DONNA MARSH, City Judge

SANDRA JONES, Mayor

ALDERMEN
THOMAS VANDEBERG, 1st Ward
JAMES SCHLADWEILER, 1st Ward
PAULETTE RAMSEY, 2nd Ward
RON SOLBERG, 2nd Ward
DAVID MARTIN, 3rd Ward
DAVE PICCHIONI, 3rd Ward
JOHN LAPIERRE, 4th Ward
LINDA YOUNT, 4th Ward

City of Roundup

P.O. Box 660
Roundup, Montana 59072

Phone (406) 323-2804 • Fax (406) 323-2757
(406) 253-4091 (TTY) / (866) 253-4090 (voice)

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson;

The City of Roundup supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

The MWC works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell Watershed. The MWC focuses on watershed-wide collaboration strategies necessary to implementing projects that result in the improvement of water quality, the conservation of water, and the reduction of conflicts over water.

The MWC past successes include: completion of Musselshell Watershed Plan, which is now in the beginning stages of implementation; compiling a River Assessment Triage Team following the 2011 flood to meet with landowners and develop Best Management Practices for activities in response to flood related damage; bringing together 18 partners along the Musselshell River to contribute funding to the USGS gaging station system, establishing and coordinating a citizen-based salinity monitoring program, bringing together a diverse range of partners bi-monthly to discuss issues and to provide project updates, coordinating a GIS Database that assists in making water management decisions; spreading more knowledge, through a watershed history and aerial photography project, about the Musselshell Watershed to others.

The MWC brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in better habitat for all. Support for the expansion of the MWC will allow the MWC as well as The City of Roundup to achieve these goals.

Respectfully

Roundup Mayor



Sandra Jones

Bureau of Reclamation
Attn: Mr. Darren Olson
Mail Code: 84-27852
Denver Federal Center
Bldg 56, Room 1000
6th Ave and Kipling Street
Denver, CO 80225

Re: Letter of Support for Further Developing the Musselshell Watershed Coalition

Dear Mr. Olson,

The Montana Department of Environmental Quality (DEQ) supports watershed coordination efforts statewide. While this letter of support does not preclude our support for other entities possibly applying for this grant, the efforts of the Musselshell Watershed Coalition are particularly relevant at this time. DEQ supports the further development of the Musselshell Watershed Coalition and its project, *Expanding Efforts to Coordinate Watershed-Wide Water Resources Planning in the Musselshell River Watershed*.

DEQ is carrying out a multi-year, watershed-wide water quality planning project in the Musselshell River watershed. The success of this project, in part, relies upon local and regional partnerships to support and strengthen our agency's outreach and coordination efforts. Collaboration with local partners, particularly the Musselshell Watershed Coalition, has supported our ability to effectively engage with watershed stakeholders and share water quality information and management decisions. Furthermore, we expect that this partnership will enhance our agency's efforts to promote water quality protection and improvement in the Musselshell River watershed over time.

The Musselshell Watershed Coalition works effectively to address water quality and quantity issues by bringing together diverse stakeholders from across the Musselshell River watershed. The Coalition focuses on watershed-wide, collaborative strategies to implement projects that result in water quality improvement, water conservation, and the reduction of conflicts over water. The Musselshell Watershed Coalition has demonstrated success through such activities as: completing the Musselshell Watershed Plan and beginning to implement the projects documented in the plan, coordinating funding to maintain USGS gage stations, coordinating a citizen-based volunteer water quality monitoring program, sharing water-related information with the public through meetings, websites and newsletters, and developing a River Assessment Triage Team in 2011 to identify best management practices to respond to catastrophic flood damage in the region.

The Musselshell Watershed Coalition brings together diverse partners to collaborate on the shared goals of improved water quality and water quantity, resulting in sustainable solutions and environmental benefits for all. The Musselshell Watershed Coalition will help to align local and regional priorities with our agency's mission to protect, sustain, and improve a clean and healthful environment to benefit present and future generations. DEQ supports the expansion of the Musselshell Watershed Coalition to achieve these goals.

Sincerely,

Darrin Kron
Montana DEQ, Water Quality Planning Bureau
Monitoring and Assessment Section Supervisor



April 28, 2016

Dear Mr. German,

I am writing to demonstrate Montana Watershed Coordination Council's (MWCC's) support for the Musselshell Watershed Coalition's application for the Bureau of Reclamation WaterSMART Cooperative Watershed Management program.

MWCC has worked directly with the Musselshell Watershed Coalition since 2014 on strategic planning and capacity building through the Big Sky Watershed Corps Program. Since 2014, the Musselshell Watershed Coalition has been the recipient of small and incremental capacity building initiatives through our organization and continues to demonstrate outstanding results in organizational growth and development.

In 2015, MWCC and the Montana Wetland Council chose the Musselshell Watershed Coalition as the recipient of the "2015 Watershed Stewardship Award" for the persistence, dedication, and creativity put forth in its work within the Musselshell Watershed. The Musselshell Watershed Coalition was precipitated by aging irrigation infrastructure on the Musselshell and the realization that working together would achieve much greater success than each entity working on its own. This has translated to partnerships among water user associations, conservation districts, and state entities to benefit the people, wildlife, fisheries, and habitat along the Musselshell River.

MWCC is excited to continue to support the Musselshell Watershed Coalition and look forward to celebrating the success of its collaborative effort. MWCC encourages you to fully fund the Musselshell Watershed Coalition's proposal, knowing that the Musselshell Watershed Coalition is in a perfect position to maximize the impact of your program in a watershed of national significance.

Sincerely,

Erin Farris-Olsen

Executive Director

erin@mtwatersheds.org

(406) 475-1420

Areas Affected by Project

State:

Montana

Counties:

Meagher

Wheatland

Golden Valley

Musselshell

Rosebud

Petroleum

Garfield

Fergus

Cities:

Harlowton

Ryegate

Lavina

Roundup

Musselshell

Melstone

Grass Range

Winnett

Montana's Musselshell Watersheds

