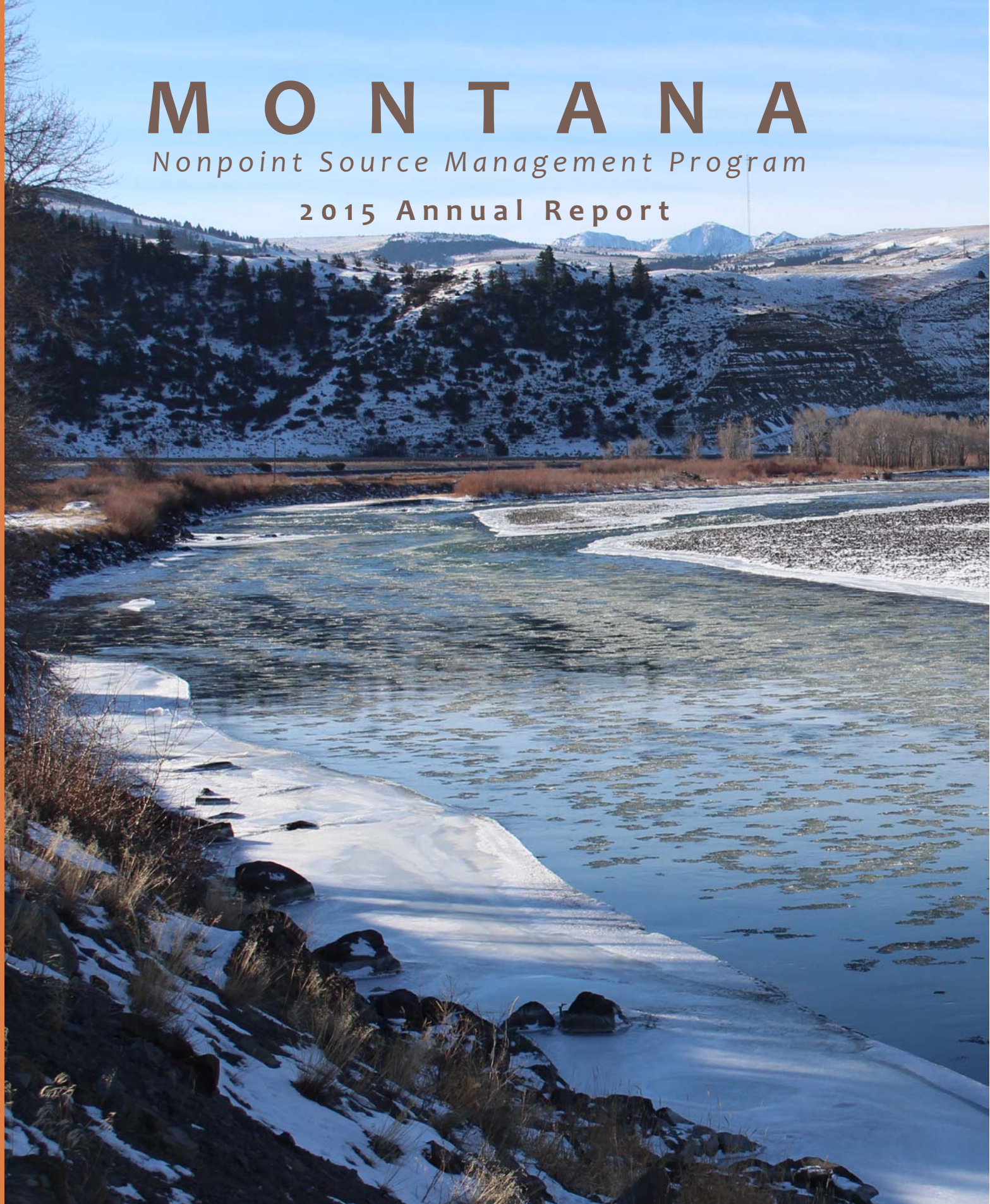
MONTANA

Nonpoint Source Management Program

2015 Annual Report

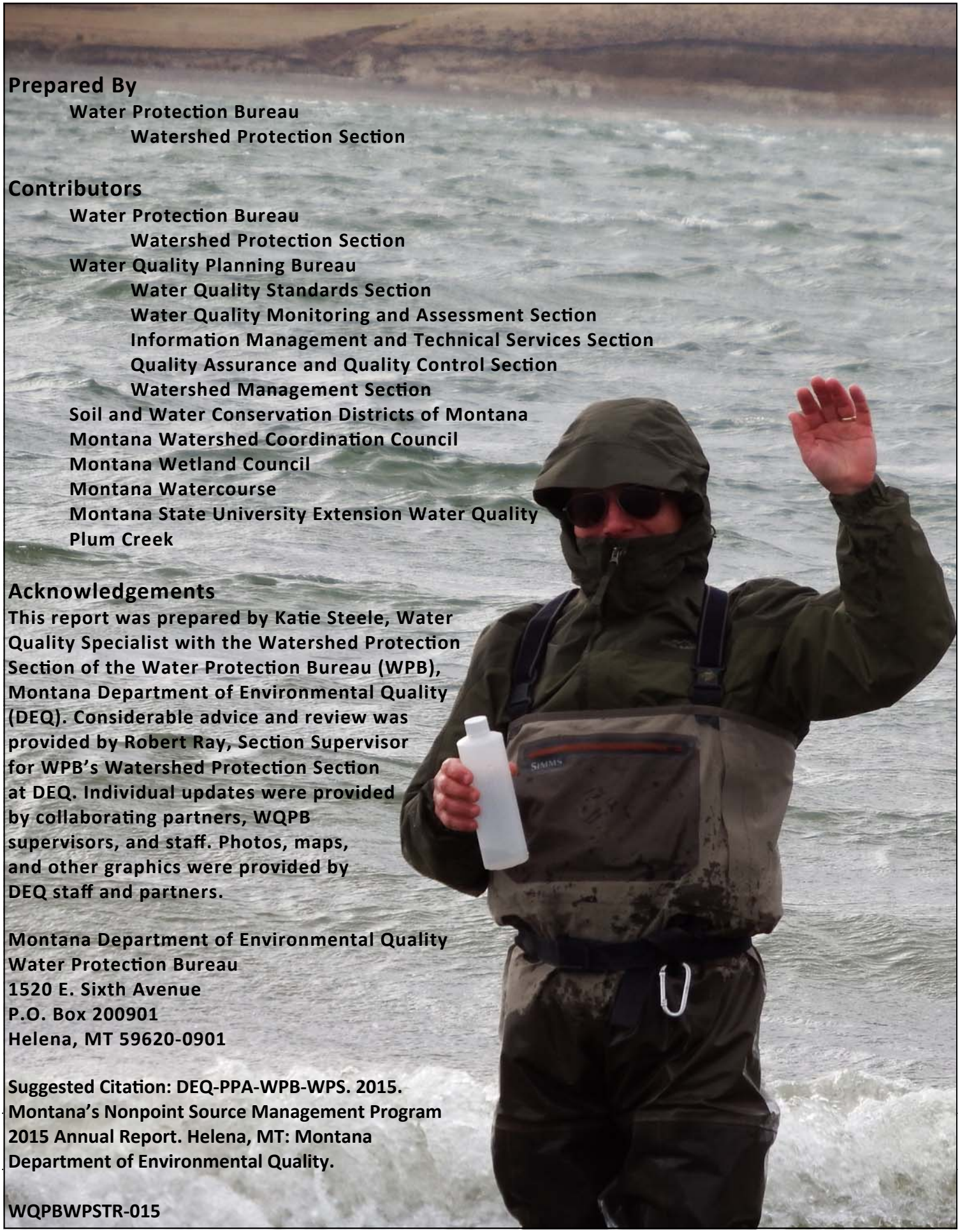


Montana's Vision Statement for Water Quality

Water quality will be restored and protected through the implementation of voluntary best management practices identified in science-based, community supported watershed plans.

DEQ MONTANA

MONTANA Watershed Protection



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Acknowledgements

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Suggested Citation: DEQ-PPA-WPB-WPS. 2015. Montana's Nonpoint Source Management Program 2015 Annual Report. Helena, MT: Montana Department of Environmental Quality.

WQPBWPSTR-015

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Nonpoint Source Management Program 2015 Annual Report

Section 319 of the federal Clean Water Act requires states to: 1) assess waterbodies for Nonpoint Source (NPS) pollution effects, 2) develop programs to manage those effects, 3) implement those programs, and 4) report on NPS program implementation to the public and to the U.S. Environmental Protection Agency (EPA). Montana's NPS Management Program is housed within the Planning, Protection and Assistance Division at DEQ and implements Montana's NPS Management Plan. The purpose of this report is to inform the public and EPA about annual progress in fulfilling the goals of the NPS Management Plan.

Highlights from the 2015 Nonpoint Source Management Program

Goal: Provide support and promote watershed groups

In 2015, the Water Quality Planning Bureau staff supported the hiring of a new Executive Director for the Montana Watershed Coordination Council (MWCC) and continued to provide organizational support. MWCC is an IRS 501(c)(3) educational nonprofit and several DEQ staff served on the Board of Directors in 2015. The Board and director developed a 2016 operational plan that focuses on the organization's core services including: maintaining an updated watershed directory, watershed newsletter, training, and capacity building. In October, MWCC and the Montana chapter of the American Water Resources Association co-hosted a symposium bringing together water managers and scientists.

Goal: Continue to support the development of Watershed Restoration Plans (WRPs)

The Watershed Protection Section continues to provide guidance and review in the development of WRPs. In 2015, two WRPs were approved by DEQ (Ruby and Kootenai River Basin) and two are in the final stages of development (Little Blackfoot Sediment and Nutrients Addendum and Lake Helena). DEQ has approved 21 WRPs since 2010. For a complete list, see Appendix G. DEQ also currently has a contract with Soil and Water Conservation Districts of Montana (SWCDM) for the development of additional WRPs.

Goal: Support DEQ's structural reorganization

In 2015, DEQ began a reorganization to bring all water programs into one integrated division. This new structure was designed with the guiding principles of organization optimization that are to:

- Improve effectiveness
- Provide for resource capacity and flexibility
- Promote a culture of continuous improvement
- Foster employee and program innovation
- Improve stakeholder and customer service
- Integrate related work units and enhance communication
- Fully utilize staff expertise across the agency
- Create ability to focus on outcomes without sacrificing the integrity of our processes

The Watershed Protection Section is now a part of the Water Protection Bureau and is working alongside Point Source permitting to coordinate the implementation of TMDLs.

Goal: Continue to develop and implement watershed-based TMDLs

- In October 2015, MT DEQ and the Ministry of Environment (Canada) held an initial meeting to discuss moving forward with site-specific selenium criteria in Lake Koocanusa. The next meeting is planned for early February 2016 in Helena with plans to discuss the role of the Monitoring and Research Group and to move forward with the development of selenium criteria for the lake.

- The Watershed Management Section devoted resources in 2015 to collect pollutant source assessment data necessary for TMDL development in the Beaverhead, Musselshell, Flathead-Stillwater, Red Rock, and Sheep Creek project areas. WMS also conducted extensive outreach in the Musselshell watershed to collaborate with stakeholders, which informs the water quality monitoring and assessment process and builds the relationships necessary for implementing TMDLs in the watershed. Additionally, WMS worked towards the completion of TMDLs for Otter Creek and Douglas Creek (Flint Creek watershed).

Implementing the Montana Nonpoint Source Management Plan

The watershed planning approach seeks to involve all stakeholders in conserving and protecting water resources through communication, cooperation, and consensus. By engaging in the watershed approach, DEQ, watershed groups, conservation districts, agencies, tribes, academia, and non-governmental organizations can effectively increase public understanding and participation in water quality protection and nonpoint source issues.

DEQ's Planning Prevention and Assistance Division houses Montana's Nonpoint Source (NPS) Management Program. The program's goal is to provide a clean and healthy environment by protecting and restoring water quality from the harmful effects of nonpoint source pollution. This is accomplished through an approach that integrates water quality standards, monitoring and assessment, and development and implementation of water quality improvement plans and total maximum daily loads (TMDLs) (Appendix A).

This Annual Report highlights important and notable actions taken to achieve the NPS Plan's five-year goals in three categories: Resource, Policy, and Education and Outreach (Appendix B). The highlighted activities promote collaboration, foster water resource awareness, and protect and improve water quality in Montana. Projects were funded with Section 319 grants in 2015 and were implemented by the NPS program, interagency councils, watershed groups, and other agencies and organizations.

Water Quality Standards

The Water Quality Standards Section (WQS) identifies the beneficial uses of stream, river, lake, and groundwater resources, and develops water quality criteria to protect those beneficial uses. The NPS Program seeks to protect and restore these beneficial uses, including drinking water, recreation, and fish and aquatic life. WQS does not receive Section 319 funding; however, WQS's work is fundamental to the NPS Management Program in Montana.

In 2015, WQS evaluated prototype facultative lagoon technologies to determine which low-cost technologies and best management practices can be applied to enhance lagoon treatment of ammonia, total nitrogen, and total phosphorus. WQS will work with several communities in 2016 to apply selected technologies, BMPs, and optimization methods to their lagoons. Water quality improvements resulting from the changes will be monitored and reported upon at a later date.

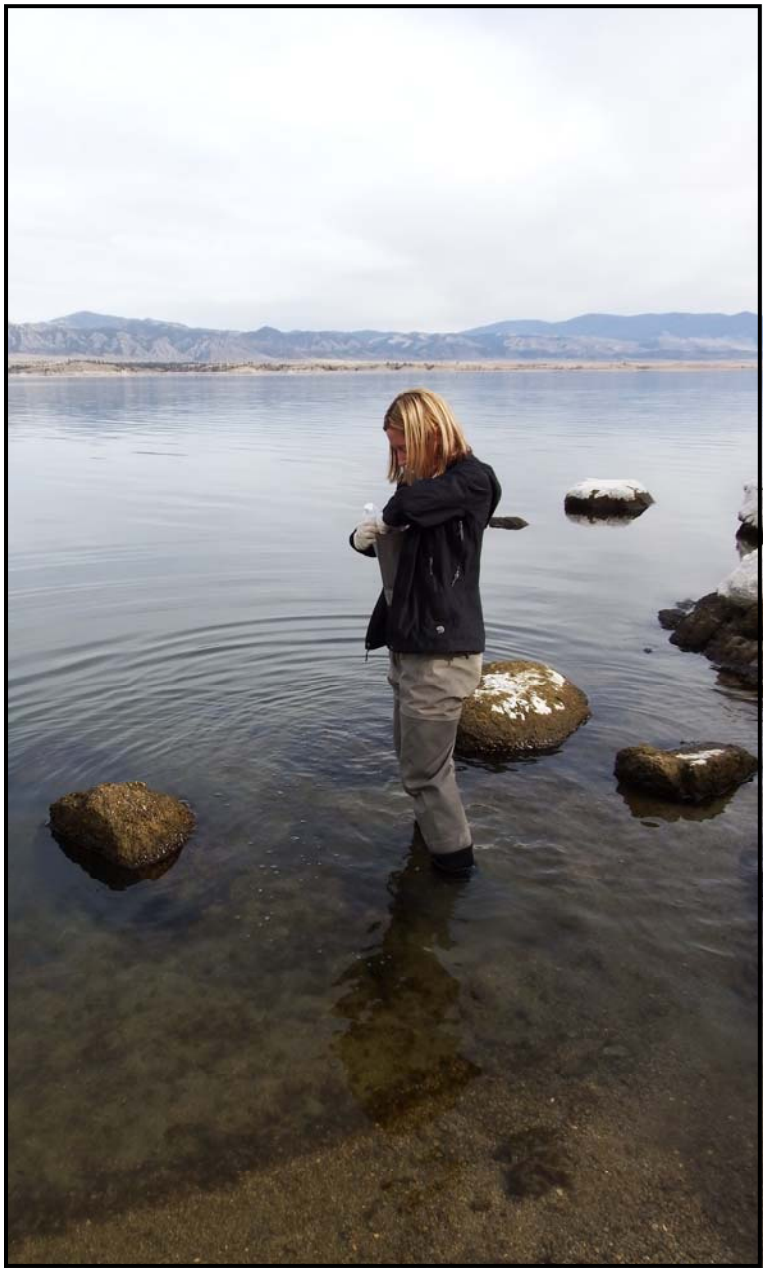
Arsenic data were collected in the Yellowstone and Missouri River watersheds in 2015 as an initial step in determining the natural arsenic levels of these river systems. These data will be used to determine if beneficial uses of the streams need to be revised and/or if updated numeric water quality criteria are necessary. Data collection and assessment will continue in 2016. Additionally, sampling will occur in the Yellowstone and Madison/Missouri Basins for the purpose of defining the level of arsenic concentrations to determine appropriate water quality standards.

The dissolved oxygen project is a long-term project (2013-2017) in prairie streams (Eastern Montana) to evaluate how much change in dissolved oxygen is acceptable, and to modify, if necessary, the current dissolved oxygen standard in this type of streams.

In 2015, DEQ continued work on the reference project. This entailed revisiting established reference stream sites around the state to determine if they are still in a reference condition, collecting additional data from established reference sites to enhance existing datasets and to refine water quality standards. Carrying out systematic sampling of the network allows for long-term trend analysis. We also identified a limited number of new reference streams on an as-needed basis. This project will continue in 2016.

In 2015, the Middle Missouri River (Craig to Loma) data collection effort to derive nutrient criteria was completed. Data collection in Canyon Ferry Lake to develop nutrient criteria using a CE-QUAL W2 model began this year, and will continue in 2016. Data collected in the Missouri River (Toston dam to Canyon Ferry Lake) in 2013 and upper Yellowstone River (Livingston to the confluence of the Big Horn River) in 2014 will be used to derive numeric nutrient criteria and a report on these projects is pending. A final report for the three-year (2009-2011) nutrient-addition field study carried out in Carter County will be available early 2016.

Over the past several years, WQS has been extensively reviewing criteria, including metals, ammonia, and salts. This review has identified areas where additional research and implementation strategies will be investigated in 2016.



Water Quality Monitoring and Assessment

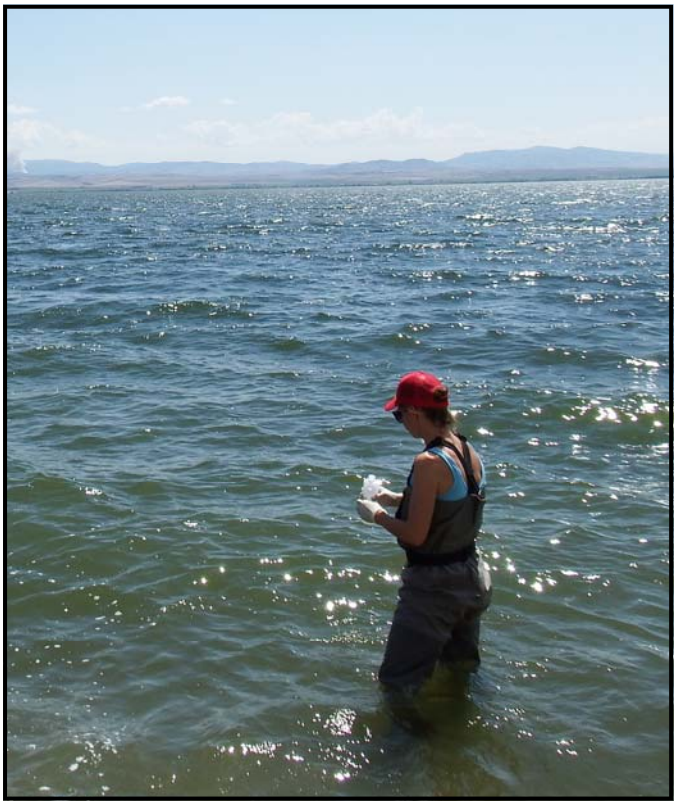
The Water Quality Monitoring and Assessment Section (WQMAS) monitors statewide water quality conditions and trends. A variety of monitoring strategies are used to complete this task, including a targeted watershed approach that is used to assess water quality conditions and beneficial use support, fixed station monitoring in targeted regions or basins to detect trends, and monitoring in areas with known or changing threats to water quality.

In 2015, WQMAS focused its efforts in the Musselshell, Beaverhead, and Red Rocks watersheds. Project planning in the Musselshell included data compilation, stakeholder outreach, watershed risk assessment, and field reconnaissance. Significant fieldwork and sample collection occurred there as well including nutrient, sediment, temperature, salts, common ions, and metals analysis. Nutrient, metals, and biological sampling occurred on 15 stream segments in the Beaverhead watershed where updated assessments will occur in conjunction with a second phase of TMDL planning. Watershed characterization monitoring began at 15 sites in the Red Rocks watershed and will be used to develop a more robust monitoring design for water quality assessments.

WQMAS provided training to volunteers in the Madison, Deep Creek, and Musselshell watersheds on various monitoring techniques, including proper use of field equipment. WQMAS also provided input on monitoring design, methods, field manual preparation, and field training for WQPB and other DEQ staff as well as for general stakeholders in these watersheds. We continue to supply and maintain the majority of the DEQ planning division field equipment and supplies for water quality monitoring.

A new vision and program plan for the statewide status and trend monitoring program has been constructed. The new design involves DEQ and stakeholders working at different scales to assess status and trends in state water quality conditions and includes these components:

- Sub-basin scale fixed-station monitoring of water quality status and spatial trends for informing projects implemented using the watershed approach: Musselshell, and Red Rock projects.
- Regional, large river or lake basin scale fixed-station monitoring projects: Clark Fork River Basin Nutrient Monitoring, Upper Clark Fork Basin Metals Monitoring, Upper Missouri/Madison River Basin Water Quality Monitoring, Flathead Basin Water Quality Monitoring, Kootenai River Water Quality Monitoring, and Northwestern Lakes Volunteer Trophic Status Monitoring.
- Targeted fixed-stations monitoring projects that are focused on detecting changes in water quality that may be caused by recent human activities: Lake Koocanusa Selenium monitoring, Powder River, Rosebud Creek, and Tongue River Salinity and Surface-Monitoring Network, New World Mining District Metals Monitoring, Oil and Gas Surface Water Monitoring.
- Reporting on EPA's randomized National Aquatic Resource Survey Data in Montana's Water Quality Integrated Report.



Because updated oil and gas production technologies have emerged in eastern Montana, WQMAS applied for and received a grant under the Montana DNRC Reclamation and Development Grants Program to investigate ambient baseline groundwater conditions in areas where hydraulic fracturing for oil and gas is taking place. In areas of nonconventional oil and gas extraction, all groundwater monitoring occurred during 2015 and a groundwater data report has been completed. WQMAS continues to monitor surface waters in 13 small watersheds where oil and natural gas reserves are being developed. A comprehensive joint report with Montana Bureau of Mines and Geology is scheduled for completion during 2016 that will integrate both groundwater and surface water data.

Information Management and Technical Services

The Information Management and Technical Services (IMTS) Section develops and manages science and business related information systems and provides technical support for the Nonpoint Source Program. IMTS also provides project management, agency-bureau IT coordination, mentors other state environmental agencies in data management, and supports water quality/watershed modeling to develop TMDLs and water quality standards. IMTS is divided into the Data Management Group and the Modeling Group.

IMTS Data Management manages and administers nine relational databases and information management applications. These databases support the Clean Water Act (CWA) section 305(b) assessments and 303(d) listing decisions, water quality metric data, water quality library, bibliographic references, contracts, and our monitoring equipment inventory. IMTS publishes online Montana's biennial water quality Integrated Report (IR), solicits public comments on draft reports and documents, and enables water quality library queries. It also provides administrative support for WQPB's wiki sites maintained for the Section 319, TMDL, and water quality standards programs.

During 2015, the IMTS Data Management Group upgraded our EQuIS data management system to version 6.4.1 and continued to assist DEQ's Remediation Division and Coal Program in implementing EQuIS for its metric data management; completed Phase 3b development work for our WARD system that included a re-design of how TMDL implementation activities are tracked, developed a mechanism to exchange data between WARD and our EQuIS database, and developed a new application to assist in reporting data from MT-eWQX to our network node for transmitting to EPA's WQX database; and participated on EPA's national ATTAINS Integrated Project Team for the new ATTAINS v1.1 database schema design.

IMTS Data Management also processed 198 water quality data packets (as of November 12, 2015) from 44 unique monitoring projects into its water quality database – Montana EQuIS (Environmental Quality Information System) for WQX (MT-eWQX). All of the data packets were new data inserts. These data loads were transmitted to the national Water Quality Exchange database via the Exchange Network.

Other activities of the Data Management Group include: providing technical support, guidance, and mentoring for DEQ programs on implementing an environmental metric data management system (EQuIS); participate on the Montana Hydrology Workgroup that oversees the state implementation of the USGS National Hydrography Dataset; publication of a 1:24,000 scale on-line water use classification map of Montana's water use classifications, and assisted DEQ's water permitting program in contracting and project management for a new integrated relational database system for permit application processing, permit development and issuance, and compliance tracking. This new system, named FACTS (Fees, Applications, and Compliance Tracking System) will exchange data (push/pull) with EPA's ICIS data system using the Exchange Network.

The IMTS Modeling Group supported modeling for site-specific water quality standards for electrical conductivity and sodium adsorption ratio in Otter Creek (Tongue Basin), for TMDL development in the Powder River Basin (salinity) as well as analysis of on-site wastewater (septic) system loading to groundwater for various projects. Model support was also provided for water quality standards (nutrient criteria) development on the middle Missouri River and Canyon Ferry Reservoir. Other work includes: assisting with review of the technical impracticability analysis and stormwater modeling for the Butte Priority Soils federal superfund site, development work for a salt modeling algorithm for the Soil and Water Assessment Tool model in cooperation with the Blackland Research & Extension Center of Texas A&M University (authors of the SWAT model), and data collection on Squirrel Creek (Tongue Basin) and Pony, Cow, Spring, and Miller Creeks (Rosebud Basin) for model development supporting the TMDL program.

Quality Assurance and Quality Control

The Quality Assurance and Quality Control Section (QAQC) supports the Nonpoint Source Program and contractors by developing and describing the management and technical procedures that will assure the quality of environmental information used to support decisions. This is referred to as a "quality system." It provides a practical framework for managing the quality of activities, resulting in environmental determinations and controls.

In 2015, the QAQC program continued to support in-house processes used to support the development of water quality criteria, reporting the condition of the state's waters, developing Total Maximum Daily Loads (TMDLs), implementing best management practices, and determining the effectiveness of implementation strategies.

DEQ receives data from: local, state, and federal agencies; volunteer monitoring efforts; nonprofit organizations; private entities; and other groups or individuals who have an interest in water quality. This data must be defensible and its quality known before it is considered for use in DEQ Water Quality Assessments and other projects that require a high level of rigor. Bureau staff coordinates with other agencies, conservation districts, watershed groups, and other entities to ensure quality data that can be used in water quality assessments and TMDL development and implementation projects funded by Clean Water Act section 319 grants administered by DEQ.

DEQ has established the minimum quality requirements which require planning documentation, Quality Assurance Project Plans (QAPPs) and/or Sampling and Analysis Plans (SAPs), for data to be considered for assessment purposes when soliciting data under the Call for Data. QAQC may review this external data to ensure it meets the requirements for use by DEQ. All volunteer groups that receive funding through the Section 319 program are required to submit a SAP before monitoring. A General QAPP was developed by the Montana State University Water Quality Program, Montana Watercourse, and DEQ to provide general data quality guidelines and a basic framework for training members of a volunteer monitoring group. Project-specific QAPPs are also developed for particular monitoring areas with specific goals and objectives. Volunteer monitoring groups are encouraged to develop clear and thorough QAPPs, which outline the goals and objectives of the project and document the design of the stream monitoring program, in turn increasing data validity.

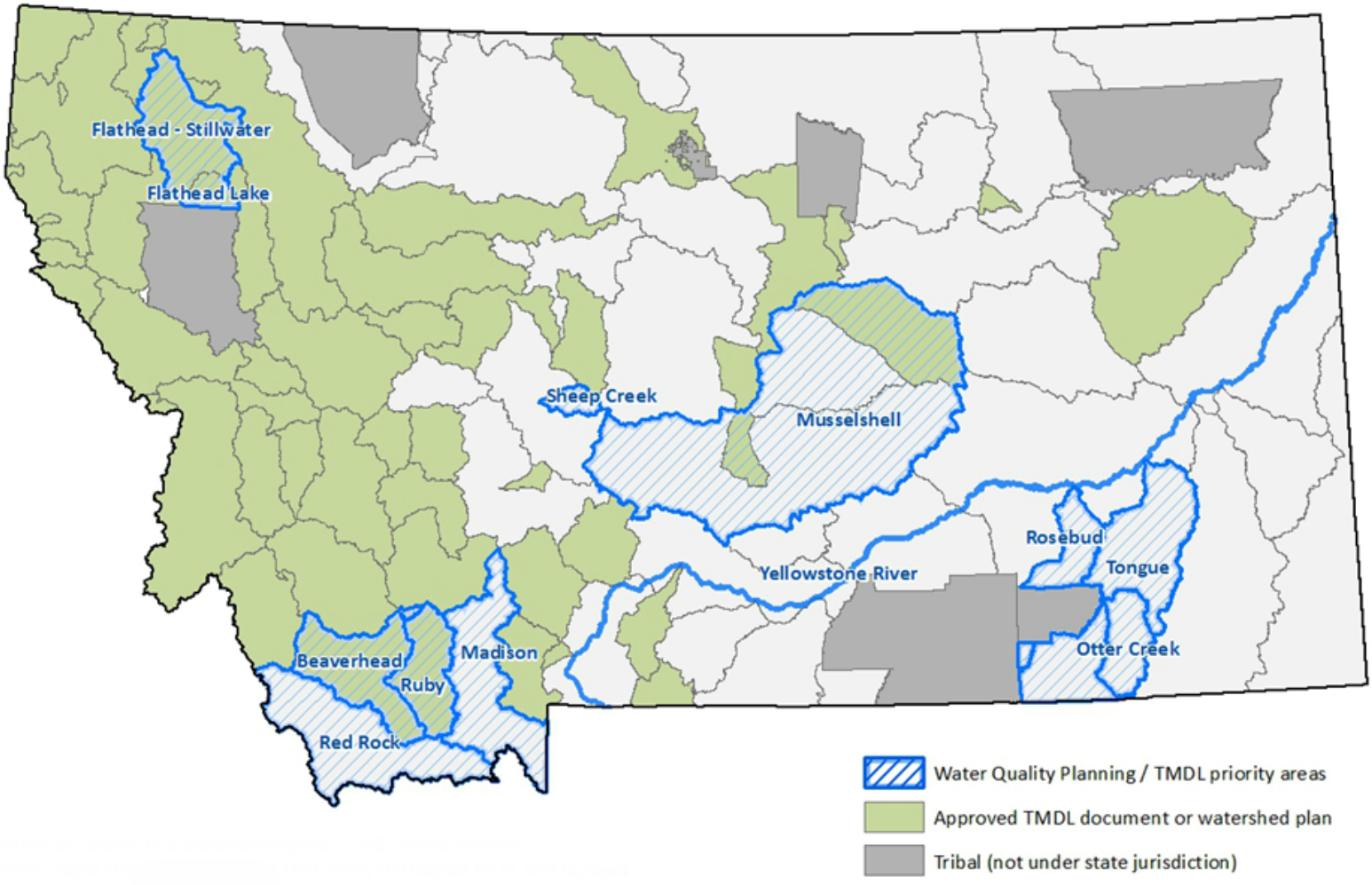
In 2015, QAQC approved several SAPs focusing on monitoring Section 319 restoration activities for effectiveness and pollutant-load reductions, including Rimini Road, Deep Creek, Cooke City/Soda Butte Creek, Ninemile Creek, Bull River, and Upper Lolo Creek. QAQC also collaborated with the Watershed Protection Section to develop four SAPs under the volunteer monitoring grant program.

Watershed Management

The Watershed Management Section (WMS) develops Total Maximum Daily Loads (TMDLs) for waters on Montana's 303(d) list of impaired waters. A TMDL refers to the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL is sometimes expressed as a reduction in pollutant loading necessary to achieve water quality standards. TMDL documents in Montana typically include the framework for a restoration strategy, including implementation and monitoring recommendations. TMDLs are essential for planning watershed restoration activities to ensure the most cost-effective best management practices are developed to improve water quality. TMDLs are developed at a watershed scale to encompass the entire area that contributes a pollutant to a stream. TMDL project areas were created throughout the state to group multiple waterbodies with similar impairment causes.

DEQ has prioritized 11 project areas for water quality planning and TMDL development work over the next seven years, each highlighted in the map below. The project areas are in varying phases of planning. In 2015, WMS collected data for pollution source identification purposes in the Beaverhead, Musselshell, Flathead-Stillwater, Red Rock, and Sheep Creek project areas. Project planning has begun on the Tongue River mainstem for salinity. Additionally, WMS has been working with the Watershed Protection Section on Jim Creek, Deep Creek, and Taylor Fork re-assessments.

Measuring stream bank erosion in the Madison Watershed



Watershed Protection

The Watershed Protection Section (WPS) works to protect and restore water quality from the effects of nonpoint source (NPS) pollution. NPS pollution is the state's single largest source of water quality impairment. Unlike pollution from industrial and sewage treatment plants (point sources), NPS pollution comes from many widespread sources and can be generated by most land-use activities. NPS pollution is created when runoff water moves over and through the ground, delivering pollutants to lakes, rivers, wetlands, and groundwater. Common NPS pollutants include sediment, nutrients, heavy metals, pesticides, pathogens, oils, and salts.

Water Quality Restoration

The Watershed Protection Section receives federal Clean Water Act (CWA) Section 319 funding to address NPS water quality problems in Montana. Each year EPA awards two Section 319 grants to WPS, one to fund water quality restoration projects, and the second to fund staffing and support. In October 2015, WPS completed and closed out the fiscal year 2010 Section 319 projects grant from EPA. This grant ($1,109,000) allowed DEQ to support 20 NPS projects with local sponsors throughout Montana between 2010 and 2015. The sponsors contributed $1,332,230 in non-federal funds that was well above their required 40 percent match. In 2015, WPS also closed out the state fiscal year 2014 Section 319 program grant ($1,161,465) that included a state match contribution of $771,804. This grant covered 22 staff position salaries in the Planning Prevention and Assistance Division.

WPS solicits project proposals from local watershed groups, conservation districts, and other organizations to address NPS pollution problems. Projects are selected by WPS with the support and guidance of the Water Activities Work Group of the Montana Watershed Coordination Council and the Agency Review Panel. In 2015, DEQ awarded $949,500 in Section 319 NPS funding for nine projects (Appendix C). Contractors committed to $1,655,300 in non-federal match for these projects which well exceeds their required 40 percent match. In November of 2015, WPS held a second call for applications for unspent funds left over from projects that were completed under budget or were unable to be successfully completed. An additional seven projects were funded and two existing contracts were amended to add funding.

WPS continued to use electronic application forms for the fiscal year 2015 Section 319 project proposals. These forms have greatly reduced the amount of time necessary to complete the application process for both applicants and reviewers. WPS continues to maintain a wiki site to provide easy access to application forms as well as to post calls for applications, report templates, guidance documents, and Watershed Restoration Plans.

During 2015, WPS managed nearly 50 open contracts that implemented the state's NPS Management Plan. WPS closed 18 Section 319 contracts in 2015 and expects to close five more by early 2016 (i.e., contracts that expired in December 2015 with final reports due). See Appendix D for a complete list of contracts closed in 2015.

Watershed Planning

WPS continued working with watershed groups to develop Watershed Restoration Plans (WRPs). The NPS program has funded 24 groups to develop WRPs. In 2015, WPS accepted WRPs for the Kootenai River Basin, and the Ruby River Watershed, and provided comment on multiple draft WRPs. Appendix G includes a complete list of WRP efforts. WRPs are an important planning document for groups doing on-the-ground watershed restoration and must contain nine elements specified by EPA:

1. An identification of the causes and sources of water quality impairment.
2. An estimate of the load reductions and management measures necessary to meet standards.
3. A description of the NPS management measures that will need to be implemented.
4. An estimate of the amounts of technical and financial assistance needed.
5. An information/education component.
6. A schedule for implementing the NPS management measures.
7. A description of interim measurable milestones.
8. A set of criteria for determining whether loading reductions are being achieved over time.
9. A monitoring component to evaluate the effectiveness of implementation efforts over time.

Supporting Our Partners

WPS participated as an observer or reviewer on grant application review teams for the Department of Natural Resources and Conservation (DNRC), and the Montana Department of Fish, Wildlife & Parks. WPS provided significant support to DNRC's development and launch of an exciting new Watershed Management Grant program designed to fund water-related planning and management activities sponsored by local government, state government, tribal government, and non-profit entities. In each instance, WPS provided guidance on the potential effects of proposed best management practices on NPS pollution. WPS also worked with the USDA Natural Resources Conservation Service (NRCS) and its partners to maintain financial and technical support for the National Water Quality Initiative efforts in the Deep Creek watershed outside of Townsend. Concurrently, WPS worked with NRCS to begin identifying potential watersheds for 2017 National Water Quality Initiative funding. Camp Creek (near Bozeman), Jefferson River – Big Pipestone, and the Ruby River have all been discussed.

In 2015, WPS worked with Amy Jensen, the U.S. Forest Service's (USFS) new Regional Hydrologist for Region 1, to plan and hold the annual DEQ–Forest Service coordination meeting in Missoula. Topics at the April meeting included regional and forest-specific activities, USFS travel management planning, TMDL planning efforts, assessment procedures, monitoring activities, and opportunities for integrating processes among agencies for prioritizing watershed protection. WPS staff managed three 319 contracts focused on projects on Forest Service lands in 2015.

WPS continues to support nonpoint source pollution education and outreach efforts through partnerships with MACD, MWCC, and MSUEWQ, and Montana Watercourse. Specific details of the programs offered through these groups can be found in the Partners and Highlights section as well as the Education and Outreach section of the NPS Program's five-year action plan.

Implementation of the Bitterroot Watershed Restoration Plan: Riparian Restoration and Sediment Reduction on Rye Creek

This project was initiated in 2012 when a landowner contacted the Bitter Root Water Forum (BRWF) with concerns over an eroding streambank on Rye Creek, a stream with sediment and nutrient listings in the Bitterroot watershed. Rye Creek is one of seven priority streams identified in the Bitterroot Watershed Restoration Plan (WRP). BRWF reached out to adjacent landowners to determine if this could fit into a larger project and found three other interested landowners. BRWF then applied for and received 319 funds through contract #213024 to develop a design plan for three of the four properties. This design plan emphasized natural stream recovery, riparian fencing, and bioengineering techniques. In 2015 BRWF applied for 319 funds to implement the design plan, but due to limited funding, DEQ was only able to provide funds for two of the three properties. BRWF was awarded a second 319 contract for implementation of the project, contract #215011, and construction was completed in April, 2015. Through education and outreach efforts, the community was actively engaged in this project from the beginning and much of the work was completed by volunteers. Through 10-year agreements with BRFW and the landowners, the project sites will continue to be monitored and maintained to ensure project success. As a result of this project, 250 feet of streambank was restored, sediment loading to Rye Creek was reduced by 100 tons, nitrogen was reduced by 21.4 pounds, and phosphorus reduced by 173 pounds. This project compliments other sediment reduction work that BRWF is conducting with the Bitterroot National Forest on the upper part of the watershed and links nonpoint source sediment reduction on private and public lands. Project partners included the landowners, Bitterroot Conservation District, Montana Fish, Wildlife & Parks and the Army Corps of Engineers. This well-executed project is an excellent example of collaboration and public involvement to implement watershed restoration goals outlined in the Bitterroot Watershed Restoration Plan. For more information on this project and other activities, visit BRWF's website: http://www.brwaterforum.org

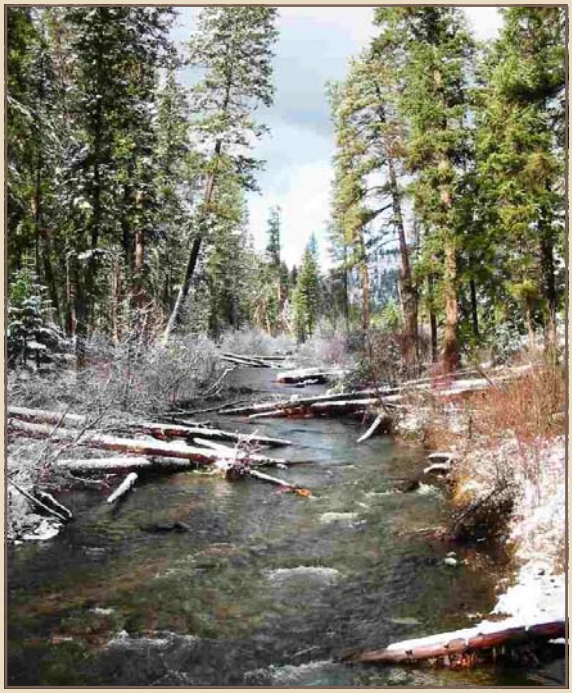
Before and after photos of first project site: encapsulated soil lift, live brush toe, and native vegetation plantings

Before and after photos of second project site: bioengineered bank with live brush toe and native vegetation plantings

BRWF staff and volunteers were instrumental in the successful completion of the two project sites.

Plum Creek Celebrates 15th year of implementation of Native Fish Habitat Conservation Plan

The Native Fish Habitat Conservation Plan (NFHCP) is a 30-year agreement between Plum Creek and the US Fish and Wildlife Service to protect and enhance native trout, including the threatened bull trout, on 770,000 acres of Plum Creek ownership in western Montana. Having just completed its 15th year of implementation of the NFHCP, Plum Creek has demonstrated remarkable progress in improving watershed conditions for the benefit of fish. The following efforts have shown demonstrated positive effects to water quality and nonpoint source pollution:



Large woody debris placement pilot project in Fishtrap Creek. Post project sampling of channel conditions and fish density have noted significant improvements in pool habitat and cover for native trout.

Culvert installed on lover Fawn Creek, (tributary to the Fisher River) to improve fish passage and reduce risk of culvert failure.

- 7,100 miles of road have been upgraded to improved BMP condition, and another 210 miles decommissioned. This includes the improvement of over 100 stream crossings for fish passage. The cumulative benefit of these improvements is an estimated reduction in sediment delivery to streams of 50 percent.

- Through implementation of the Montana Stream Management Zone (SMZ) Law and NFHCP enhancements, forested buffers are left adjacent to streams during timber harvest activities. Stream temperature research finds these stream buffers are highly effective at maintaining water temperatures for healthy trout populations.

- Trends at 1,000 permanent streamside plots have demonstrated improved riparian conditions over the past decade, with increased tree diameter and connected canopy cover.

- Riparian greenline conditions along grazed streams are dramatically improved through range management practices designed to protect streamside areas and provide for improving plant communities.

- Riparian restoration projects have been completed along 15 miles of river corridor in the Fisher and Thompson River valleys. This included planting and protection of 3,200 willows, 24,000 conifers, and in-stream additions of large wood.

- Changed Circumstance Plans have been developed to address 20 large wildfires. Results of these assessments directed improvement to roads and culverts to handle enhanced post-fire runoff and specific post fire rehabilitation needs such as riparian reforestation.

Every five years, Plum Creek and the USFWS review current research and monitoring data, and make any necessary changes to the NFHCP. The next review is scheduled for 2016. More information on the Native Fish HCP can be found at Plum Creek's website:
http://www.plumcreek.com/plumcreek/media/library/pdfs/resources/fact-sheets/nfhcp-quick-facts.pdf
and at the US Fish and Wildlife Service website:
http://www.fws.gov/montanafieldoffice/Endangered_Species/Habitat_Conservation_Plans/Plum_Creek_HCP/Home_pcfeis.htm

Partners and Highlights

Section staff within the Planning, Prevention and Assistance Division have worked to meet NPS program goals and have successfully maintained the viability of watershed groups across the state by supporting and coordinating with organizations such as the Montana Watershed Coordination Council, Montana Watercourse, Montana State University Extension Water Quality, Montana Association of Conservation Districts, Montana Wetland Council, and various federal and Montana state agencies.

Volunteer Monitoring Partnership

DEQ partners with a number of organizations, including Montana State University Extension Water Quality (MSUEWQ), Montana Watershed Coordination Council (MWCC), and Montana Watercourse to promote volunteer monitoring efforts across the state.

DEQ staff and partners provide technical and financial support to watershed groups throughout the state to develop monitoring plans and conduct water quality monitoring. In 2015 some of these efforts focused on developing long-term goals and strategies, sampling and analysis plans (SAPs), and monitoring protocols for volunteer monitoring groups in the Deep Creek, Madison, Upper and Lower Gallatin watersheds, and Little Bitterroot Lake.

The volunteer monitoring lab analysis support program was initiated in 2010 and continues to provide financial assistance to groups to cover the cost for laboratory sample analysis associated with water quality monitoring projects related to nonpoint source pollution. A review panel composed of DEQ staff from the watershed protection section, monitoring and assessment section, and the Quality Assurance and Quality Control officer reviewed QAPP/SAP drafts, and QAPP/SAP approval was required before funding was distributed in May. This process has shown improved program efficiency and reliability of the data collected.

This year the Madison Stream Team, Gallatin Stream Teams, Gallatin River Task Force, and Little Bitterroot Lake Association received DEQ support for volunteer monitoring lab analysis. All of these groups have built a solid foundation by participating in the program, and meeting the timeline for proposals, which serves to encourage project planning before spring runoff. Each of the groups has been thorough in its QA/QC efforts, ensuring reliable data that will help meet project objectives and DEQ standards. The volunteer monitoring lab support program continued efforts to improve outreach to eligible groups, develop more comprehensive documentation on the WPS Wiki site, refine the SAP template to meet the needs of DEQ and volunteer monitoring groups, and streamline the required deliverables for participating in the program.

The volunteer monitoring partnership continues to explore new ways to engage the public in meaningful data collection to meet the goals of DEQ and watershed groups across the state. MSUEWQ worked with the Madison Stream Team to develop a pilot turbidity and sediment monitoring program, the Broadwater Conservation District to develop a SAP for their monitoring efforts, and continued to provide technical assistance for the Musselshell Watershed Coalition's salinity monitoring program.

Volunteer monitoring plays a critical role in linking communities with water quality issues and building important datasets. The funding helps support volunteer monitoring efforts for a wide variety of goals and improve understanding and management of water resources. Future efforts will seek to support decisions for listing and delisting impaired waterbodies, assess sources and load allocations for TMDL development, and identify and prioritize sources of nonpoint source pollution that can be addressed through restoration.

Soil and Water Conservation Districts of Montana

For more than 40 years, the Soil and Water Conservation Districts of Montana (SWCDM) has contributed to the success of its constituent conservation districts across the state. Created in 1970, SWCDM is a nonprofit association governed by a statewide board of directors who simultaneously serve as district supervisors in their own jurisdictions. In order to carry out the specific directives of the board, SWCDM and its affiliated organization, Montana Association of Conservation Districts, have an office in Helena.

Montana's 58 conservation districts use locally-led and largely non-regulatory approaches to address natural resource issues. Districts have a decades-long history of conserving Montana's resources by matching the needs of local people with technical and financial resources, and initiating good conservation practices to benefit all Montanans.

2015 was a productive year for SWCDM in assisting with NPS pollution issues across the state. Some activities included:

- Coordinated a mini-grant program through DEQ 319 funding for dozens of conservation districts, watershed groups, schools and other entities across Montana to address NPS issues through education and outreach projects. In 2015, 14 organizations were awarded grants for a total of $24,943. It is expected to award a similar amount of funding for projects in 2016.
- Participated as a coordinating partner for the Big Sky Watershed Corps program which placed 20 members with organizations in 2015. A majority of these Corps members worked directly on local water quality improvement projects during their term. We will continue to support the BSWC program in 2016.
- Administered an Irrigation Water Management Program to help producers efficiently manage their water resources, which in turn can improve water quality.
- Began coordination of a program through DEQ 319 funding to assist conservation districts, watershed groups, and other conservation entities in developing watershed restoration plans for their local watersheds. We expect at least one WRP to be completed in 2016 and another 4-5 to be completed by the end of 2017.
- Partnered with NRCS and others to bring five soil health workshops across the state. Nearly 600 participants were in attendance, and many of the practices discussed for improving soil resources will positively impact water quality through reduced need and use of fertilizer and pesticides. SWCDM will continue to work with NRCS and conservation districts to bring more soil health workshops and resources to producers in Montana in 2016.
- Participated as a stakeholder in numerous meetings and workshops on drought management planning for the Upper Missouri River basin.

In addition, conservation districts across the state continue to carry out Montana's Natural Streambed and Land Preservation Act (310 permit) program that minimizes soil erosion and loss, and protects and preserves streams in their natural or existing state.

Whitefish Lake Institute Mini-grant: Flathead Watershed Educators' Guide Phase II - Curriculum Development

Bitter Root Water Forum Mini-grant: Irrigation Water Distribution and Conservation Tour

Lolo Watershed Group Mini-grant: Water to Web - Water Quality with Local Students

Montana Watershed Coordination Council

The Montana Watershed Coordination Council (MWCC) is a non-governmental organization working statewide to support information and education and to develop capacity for local watershed work. MWCC's mission is uniting and supporting Montana's watershed communities to promote healthy and productive landscapes.


Annual General Meeting, January 2015

In January, MWCC hosted its annual general meeting, which featured plans for the year and guest presentations, including words from Lieutenant Governor Angela McLean, DNRC Director John Tubbs, FWP Director Jeff Hagener, and DEQ Director Tom Livers.

Through the Big Sky Watershed Corps partnership, 20 AmeriCorps members were deployed throughout Montana from January through November to serve local efforts, which provided groups with over 35,000 hours of service. Members work on projects such as water monitoring, volunteer generation, and education. The program is a partnership of MWCC, the Montana Conservation Corps, and the Montana Association of Conservation Districts (MACD). With the help of 319 nonpoint source funding, 11 Big Sky Watershed Corps members were able to specifically work to address the impacts of nonpoint source pollution in their host communities.

In August, MWCC hosted its annual training event, a multi-day course for watershed coordinators. This year's training was a passive restoration workshop taught by Jeff Burrell, Northern Rockies Program Coordinator, Wildlife Conservation Society and Amy Chadwick, Senior Ecologist, Great West Engineering, Inc.

In October, MWCC co-hosted its biennial Symposium with the Montana Chapter of the American Water Resources Association. The three-day program was a successful gathering of approximately 180 hydrologists and watershed coordinators with an atmosphere of collaboration and brainstorming. Among other outcomes, MWCC plans to develop a web-based platform for enhanced coordination in statewide water quality monitoring efforts. MWCC is thankful for nonpoint source funding, which assisted in coordination of the event as well as supporting some participant travel and registration stipends.

MWCC continues to unite Montana's watershed communities through maintaining an updated Watershed Directory and bi-monthly newsletter, Watershed News, which boasts an open and click-through rate above the industry average.

Annual Training held in Butte: Passive Restoration Workshop

Montana Wetland Council

The Montana Wetland Program is part of DEQ's Water Protection Bureau in the Planning, Prevention and Assistance Division. DEQ's Wetland Program provides state leadership to conserve, protect, and restore wetlands for their water quality, water quantity, habitat, and flood risk reduction benefits. The Wetland Program also leads the Montana Wetland Council (Council) to develop and implement the state wetland plan, "Priceless Resources: A Strategic Framework for Wetland and Riparian Conservation and Restoration in Montana 2013-2017" (Strategic Framework). The Wetland Program's work is guided by an EPA Approved Wetland Program Plan that references the Strategic Framework and identifies, in part, the unique actions that DEQ's Wetland Program takes responsibility for to collectively achieve the overall state goal of "no overall loss of the state's remaining wetland resource base (as of 1989) and an overall increase in the quality and quantity of wetlands in Montana." A copy of the wetland program plan can be found at: http://www.epa.gov/sites/production/files/2015-10/documents/mt-wpp-amendments.pdf

The Council is an active network of diverse interests that works cooperatively to conserve and restore Montana's wetlands and riparian ecosystems. The Council meets three times per year, has an active listserv and website, and welcomes all to participate in the collaborative work of wetland and riparian protection, restoration, and management. The Council is coming up on its 20th anniversary and as a part of its continued growth, accomplishments to date were assessed, and the update of the 2008–2012 Strategic Framework was coordinated. The 2013-2017 Strategic Framework update is an action-oriented plan that prioritizes and directs collaborative efforts in conserving and restoring wetlands and riparian areas utilizing resources both internal and external to DEQ. A copy of the 2013-2017 Strategic Framework can be found at: http://deq.mt.gov/water/WPB/Wetlands

DEQ's Wetland Program coordinates and develops planning efforts to advance wetland conservation and restoration, while others implement through design and on-the-ground projects. In 2015, to advance the Strategic Framework directions and objectives, the Wetland Program facilitated bringing a Big Sky Watershed Corps member to Montana Aquatic Resources Services (MARS) to develop five Conservation Planning Frameworks (completing 5 out of 16 watersheds in Montana); provided six, one-day Wetland Plant Identification field workshops; and released the 2nd edition of the "Field Guide to Montana's Wetland Vascular Plants."

Other accomplishments in 2015 include:

- Continuing to providing professional training courses, including a two-day Bioengineering workshop entitled "Ecological stream restoration in the context of Montana regulations to build practitioner's understanding of riparian and floodplain ecological concepts.
- Developing and piloting a Watershed Risk Assessment Strategy (WRAS) for Statewide Water Quality Monitoring and Assessment. The Montana Wetland Program is currently working with DEQ's Monitoring and Assessment, TMDL, and Non-Point Source (NPS) Programs; and the Montana Natural Heritage Program on Phase II of the WRAS in the Musselshell watershed.
- Collaborating with Montana State University, the Trust for Public Land (TPL), and the City of Bozeman to continue the development of a living classroom at the Story Mill Community Park. TPL is converting Story Mill into a 54-acre community park that combines restored wetlands, riparian areas, and streams with educational and recreational opportunities.
- Continuing the development of priority wetland areas for Montana that will guide where there is the greatest need to conserve and restore wetland resources for the functions they provide.

For more information visit the DEQ Wetland Program website at: http://Wetlands.mt.gov

Wetland & Watershed Stewardship Awards

Every two years, the Montana Wetland Council and the Montana Watershed Coordination Council honor stewardship award recipients. The Wetland Stewardship Award recognizes individuals and teams who exemplify excellence and commitment in wetland conservation, protection, and restoration in Montana. The Watershed Stewardship Award recognizes and honors individuals and groups providing innovative, locally-led approaches to conserving, protecting, restoring, and enhancing watersheds.

2015 Awardees:

Kris Newgard, Kootenai National Forest Hydrologist, Three Rivers District

Kris Newgard has been a champion of the Yaak Headwaters Restoration Partnership since its inception in 1999. The main focus of the group has been to protect and restore native fish habitat in the Yaak River and adjacent watersheds on the Kootenai National Forest. Kris has consistently led the partnership through her firsthand knowledge of the watershed, commitment to its restoration, and through dedication to her job, and has persisted despite a myriad of challenges. She has been an inspiration for many of her co-workers and partnership members.

Musselshell Watershed Coalition

Formed in 2009, the Musselshell Watershed Coalition is a partnership of individuals, organizations, and agencies working toward whole basin management through collaboration along the entire length of the 342-mile Musselshell River. Four water-user groups, several conservation districts, and state and federal agencies across Musselshell, Golden Valley, Wheatland, Garfield, and Petroleum Counties are all actively engaged in the coalition. This diverse group of partners works together to tackle issues in this highly dynamic watershed that include catastrophic flooding, dewatering, excessive salinity, and water rights.

Montana Ducks Unlimited, Inc.

Ducks Unlimited (DU) has been at the forefront of wetland conservation in Montana. Over the last 30 years, DU has worked state-wide to deliver more than 500 projects conserving nearly 70,000 acres of Montana's wetlands and associated grasslands. DU's Montana network of more than 7,000 members and volunteers provides the grassroots funding base to fuel a diversity of projects that includes wetland restoration, land protection, and public policy. In addition to on-the-ground conservation, DU's ability to build partnerships that include government agencies, non-profit organizations, and private landowners is one of its most important contribution to Montana's wetland and wildlife resources.

Wetland and Riparian Mapping Center, Montana Natural Heritage Program

After nearly 10 years, the goal of creating a statewide digital wetland and riparian mapping layer is within reach thanks to the dedicated team at the Wetland and Riparian Mapping Center. New digital maps are available in multiple electronic formats. Managers, planners, scientists, and watershed groups now have fast, free access to information on the type, size, location, and distribution of wetland and riparian resources. As one of 15 official GIS data layers, these maps are used at every level of government and in the private sector. Approximately 80 percent of Montana is complete and another 10 percent has been funded.

Looking Forward

Montana continues to demonstrate that the Nonpoint Source Management Program is committed to and capable of addressing nonpoint source pollution in Montana and that a voluntary, incentive-based approach works well in this state. The state has many dedicated partnering agencies, non-governmental organizations, and concerned citizens who participate in addressing nonpoint source water pollution.

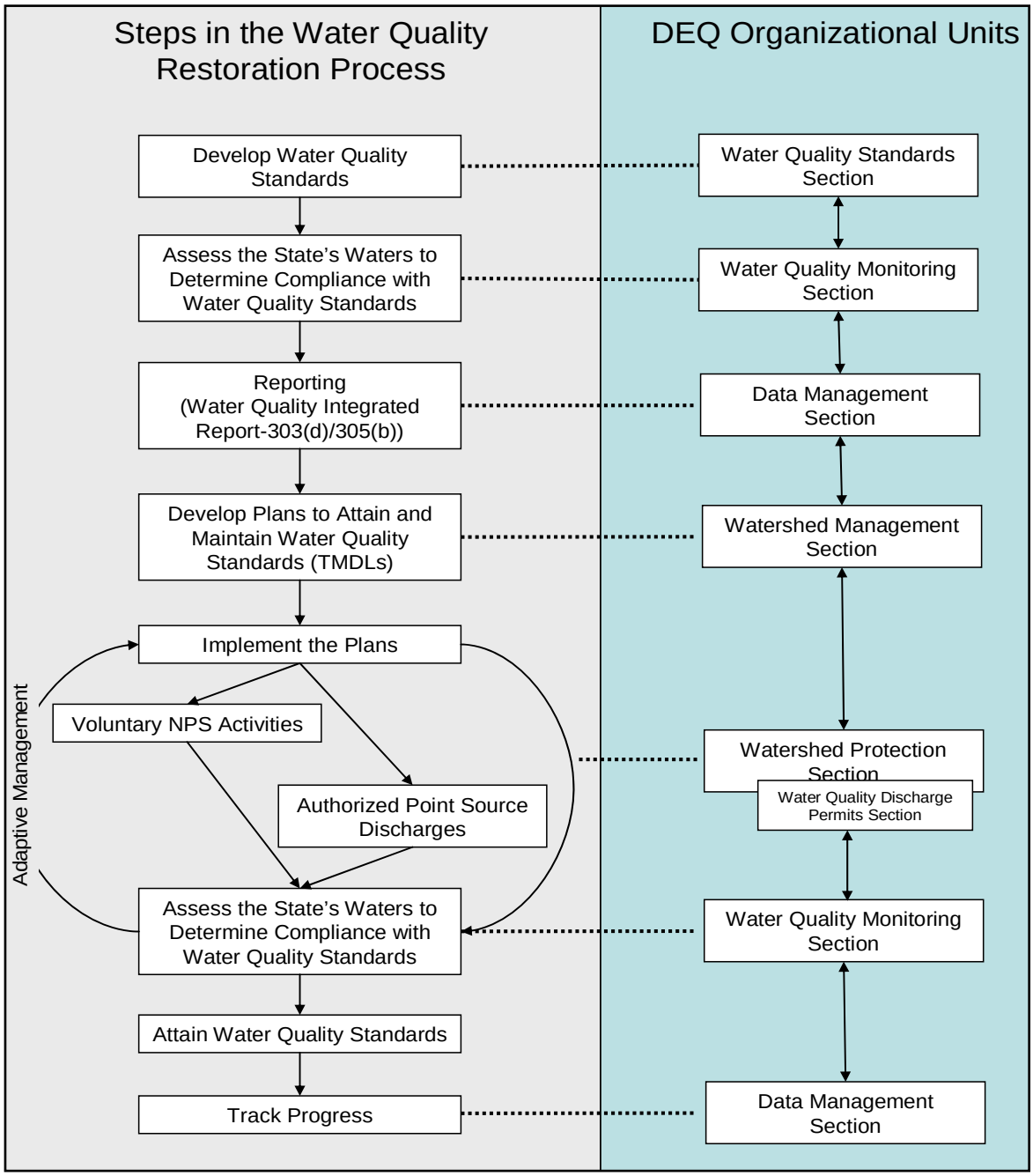
Priorities for 2016 include:

- Support local watershed groups' capacity building
- Develop and implement watershed-based TMDLs
- Support, promote, and accept watershed restoration plans
- Identify and promote nonpoint source success stories
- Support the Department reorganization to a Water Division structure
- Work to meet the five-year Action Plan measurable goals of the 2012 NPS Management Plan
- Begin working with key partners to review the 2012 Nonpoint Source Management Plan for a 2017 update

A continuing program challenge is the decrease in federal Section 319 funding to Montana. These funds are essential for supporting a clean and healthful environment, and Montana's funds support substantial agency activities, coordination, planning and programs, and on-the-ground projects in communities throughout the state, creating jobs while protecting and restoring Montana's irreplaceable natural resources. Without this funding, the local economies and environments would suffer. Negative effects from the budget cuts for Section 319 may be compounded by possible decreased federal funding to other natural resource agencies, including the NRCS, USFS, and EPA.

Appendices

Appendix A – Water Quality Planning Integrated Approach



1. The Water Quality Standards Section defines the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions to protect waterbodies from pollutants.
2. The Water Quality Monitoring and Assessment Section monitors water quality conditions and trends statewide and assesses the sources and severity of pollution problems.
3. The Data Management Section reports assessment findings.
4. The Watershed Management Section develops TMDL plans for waters not meeting standards.
5. The Watershed Protection Section supports the NPS implementation of TMDLs.
6. Water quality standards developed by the Water Quality Standards Section are used throughout DEQ, such as in the Montana Pollutant Discharge Elimination System program, to ensure clean water protection by all permitted point-source dischargers.

Appendix B – Montana Nonpoint Source Management Program's 5-Year Action Plan and Priorities

The Montana Nonpoint Source (NPS) Management Program's goal is to provide a clean and healthy environment by protecting and restoring water quality from the effects of nonpoint sources of pollution. The short-term (five-year) goal of Montana's NPS Management Program is to demonstrate significant progress in protecting and restoring Montana's water quality from nonpoint sources of pollution as measured by achieving the actions outlined in the NPS Management Plan. These actions focus on three specific areas: resource-specific goals, policy-specific goals, and education and outreach-specific goals.

5-year Action Plan for addressing NPS Pollution – Resource Related Actions

No.	*Responsible Party*	*Actions (Outcomes/Objectives)*	*Measurable Milestones/ Outputs*	*2015 Accomplishments*
R1*	DEQ, EPA	Complete Water Quality Improvement Plans (WQIPs) and necessary TMDLs.	• At least 500 additional TMDL pollutant-waterbody combinations between 2012 and 2014	• One TMDL pollutant-waterbody combination approved by EPA in 2015 (642 approved between 2012 and 2015).
R2*	DEQ	Conduct statewide water quality assessments.	• 130 water quality assessments completed by 2014	• Beneficial use assessment monitoring occurred on 40 waterbodies in western MT. 303(d)/305(b) assessment for 310 waterbodies have been completed since 2012, with over 1,200 individual waterbody pollutant combinations assessed. At least 40 waterbodies are scheduled for assessment updates in the 2016 Integrated Report.
R3*	DEQ	Review/update Water Quality Integrated Report (305 (b)/303(d)).	• Updated reports in 2014 and 2016	• 2016 Integrated Report was developed in 2015 and will be released early 2016.
R4	DEQ	Re-evaluate the chemical, physical, and biological condition of reference sites.	• At least 100 reference sites re-evaluated by 2017	• DEQ continued work on the reference project, which entailed revisiting established reference stream sites around the state to determine if they are still in a reference condition, collecting additional data from established reference sites to enhance existing datasets and to refine water quality standards, carrying out systematic sampling of the network to allow for long-term trend analysis, and identifying a limited number of new reference streams on an as-needed basis. This project will continue in 2016.
R5*	DEQ	Work with watershed groups to develop watershed restoration plans (WRPs).	• 20 DEQ-accepted WRPs by 2017	• DEQ accepted 2 WRPs in 2015. See Appendix G for a complete list. (Kootenai Basin, Ruby Watershed).
R6*	DEQ	Encourage and fund WQIP- and WRP-directed NPS watershed restoration projects, including demonstration projects, for adoption of new technology.	• Annually fund on-the-ground watershed restoration activities	• 8 projects implementing Watershed Restoration Plans were funded in 2015. FY2016 319 project proposals were accepted, reviewed, selected, and are awaiting final development of contract statements of work (SOWs).
R7	DEQ	Identify the TMDL Planning Areas having WQIPs and TMDLs in which at least some implementation activity has occurred during the previous calendar year.	• Annual reporting spreadsheet included in NPS Annual Report	• Implementation activities occurred in at least 14 TMDL Planning Areas during 2015.

** Indicates a high priority for the NPS Program*

No.	Responsible Party	Actions (Outcomes/Objectives)	Measurable Milestones/Outputs	2015 Accomplishments
R8*	DEQ	Develop and implement a monitoring strategy for Section 319 restoration activities for effectiveness and pollutant load reductions.	• Approved monitoring strategy by 2017	• The Project Effectiveness Report was completed in March 2014.
			• 100% of projects for nutrient and sediment reduction reported to EPA Grant Reporting and Tracking System	• All projects reported for 2015. Updated guidance document for estimating load reductions.
R9*	DEQ	Conduct TMDL implementation evaluations (TIE).	• Complete 20 reviews by 2017	• One TIE document in progress in 2015.
R10	DNRC	Work with forest agency partners (especially DNRC Forestry Assistance) to ensure effective forestry BMP and SMZ activities.	• Biannual reports on forestry BMP audits	• DNRC coordinated BMP field review results report completed in March. WPS staff assisted USFS with water quality monitoring on Tenmile Creek to evaluate effects of road reconstruction and paving project. WPS staff viewed a prescribed burn proposed by the Flathead NF in upper Haskil Creek Watershed. This area provides water for the Whitefish water supply.
				• DNRC investigated 6 SMZ violations. 2 penalties and 4 notices were issued.
R11	DNRC	Work with forest agency partners to develop assessments to ensure BMPs and SMZs are protecting riparian and wetland functions.	• Assess BMP and SMZ adequacy for riparian and wetland functions	• BMP assessments are conducted every other year, with next assessments in 2016.
R12	DNRC, Plum Creek	Assess the effectiveness of SMZ and HCPs.	• Reporting from the resource agencies on SMZ and HCPs by 2017	• Plum Creek's Native Fish Habitat Conservation Plan (30 year agreement between Plum Creek and US Fish and Wildlife Service) just completed its 15th year of implementation. Effectiveness evaluations are included in each 5 year review with the next review scheduled for 2016.
R13*	DEQ	Provide reviews and comment on outside agency proposed projects that may have an effect on NPS pollution.	• Reviews completed and comments provided as appropriate	• DEQ reviewed and commented on 32 outside agency projects commenting on 16 to request consistency with NPS BMPs.
R14	DEQ	Develop, maintain, and enhance Clean Water Act Information Center (CWAIC online) to provide public access.	• System operable and available to public	• Maintenance activities have been conducted to CWAIC to ensure existing functionality is maintained.
R15	DEQ	Administer MT-eWQX water quality database system.	• Upload all ambient water quality monitoring data collected by DEQ, its contractors, or data partners to EPA National STORET/WQX water quality data warehouse	• IMTS Data Management processed 219 water quality data packets from 46 unique monitoring projects into its water quality database – Montana EQuIS (Environmental Quality Information System) for WQX (MT-eWQX). All of the data packets were new data inserts. These data loads were transmitted to the national Water Quality Exchange database via the Exchange Network.

** Indicates a high priority for the NPS Program*

No.	Responsible Party	Actions (Outcomes/Objectives)	Measurable Milestones/Outputs	2015 Accomplishments
R16	DEQ	Administer electronic data deliverables (EDD) submittal process for non-DEQ eWQX data submittals using EQuIS data management tools.	• Provide Web access to data submittal process information, data management tools and training, and technical assistance to data partners and contractors	• IMTS Data Management processed 4 water quality data packets from 4 unique monitoring projects into its water quality database – Montana EQuIS (Environmental Quality Information System) for WQX (MT-eWQX). All of the data packets were new data inserts. These data loads were transmitted to the national Water Quality Exchange database via the Exchange Network.
R17*	DEQ	Develop nutrient models for large rivers (e.g., Missouri, Yellowstone).	• Models developed for at least 2 large river segments by 2017	• In 2015, the Middle Missouri River (Craig to Loma) data collection to derive nutrient criteria has been completed. Data collection in Canyon Ferry Lake to develop nutrient criteria using a CE-QUAL W2 model began this year, and will continue in 2016. Data collection completed in the Missouri River (Toston dam to Canyon Ferry Lake) in 2013 and upper Yellowstone River (Livingston to the confluence of the Big Horn River) in 2014 will be used to derive numeric nutrient criteria and a report on these projects is pending. A final report for the three-year (2009-2011) nutrient-addition field study carried out in Carter County will be available early 2016.
R18*	DEQ	Protect, restore, and create riparian and wetland buffers designed to prevent or reduce NPS pollution.	• 3 miles of riparian and/or wetland buffers as part of Section 319 contracts	• Multiple active projects in 2015 include protecting, restoring or creating riparian buffers to reduce NPS pollution. These projects (211072, 212058, 213033, 214008, 214009, 216001, 216002, 216003, 216004, and 216005) will eventually create 139,383 feet (26.4 miles) of buffer. Projects 211083,212055, 212056, 212060, 212061, and 215011 were completed creating 16,088 feet of buffer. (3.4 miles between 2012 and 2015).
R19	DEQ	Identify watersheds where NPS pollution from AFOs can be reduced.	• Identify 3 high-priority watersheds for restoration work by 2017	• Not accomplished in 2015.
R20	DEQ	Encourage additional stormwater quality improvement projects funded through the state revolving fund program.	• At least 4 stormwater projects funded by 2017	• Big Fork Phase III was funded by the State Revolving Fund.
R21*	DEQ	Manage and implement the NPS program in efficient and effective manner, including fiscal management.	• Provide consistent guidance on state reporting requirements	• DEQ created and uses template language for SOW for contract tasks.
			• Conduct contract "kick-off" meetings	• WPS conducted 10 kick-off meetings with contractors in 2015.
			• Ensure 75% of 319 contracts are closed by initially-agreed date	• 53% of 319 contracts closed by initially-agreed date.
			• Refine watershed project field evaluation form	• Completed in 2013.

** Indicates a high priority for the NPS Program*

5-year Action Plan for addressing NPS Pollution – Policy Related Actions				
No.	***Responsible Party***	***Actions (Outcomes/Objectives)***	***Measurable Milestones/ Outputs***	***2015 Accomplishments***
P1*	DEQ, FWP, MWCC, USACE, USFS, NRCS, BLM, DNRC, Individual watershed groups, private consulting firms, USFWS, MACD, others	Develop an interagency policy for river restoration work, emphasizing restoration of natural processes.	• Interagency policy supported by a wide range of government, nonprofit, and private entities by 2017	• An Interagency workgroup made up of representatives from USACOE, DNRC Floodplains, DNRC CARRD, FWP, DOJ NRDP, Conservation Districts, DEQ, and NRCS was formed to discuss the purpose and need for this policy. A broader set of outcomes has emerged through workgroup discussions and outreach to the broader field of professionals to improve guidance for contextually appropriate stream restoration and management.
P2*	DEQ in collaboration with agencies, watershed groups, and other interested parties	Develop and implement a strategy for identifying priority watersheds on which to focus technical and financial resources, leading to two 12-digit HUC watersheds achieving water quality standards.	• Strategy document, set of action items, and at least 1 action item completed by 2017	• Continue to work with NRCS on the National Water Quality Initiative (214008, Deep Creek).
P3*	DEQ	Develop and implement DEQ water quality improvement MOUs with agencies, including USFS, BLM, DNRC, MDT, NRCS, and MFWP.	• 3 MOUs established or revised by 2017	• No MOUs developed in 2015.
P4	DEQ	Assist in efforts to develop cumulative effects assessment strategies for groundwater in high-density septic/development areas.	• Provide assistance with developing 5 assessment strategies	• The DEQ Method for Estimating Attenuation of Nutrients from Septic Systems (MEANSS) assesses the potential significance of nutrient loading from septic systems with the watershed. MEANSS was used to estimate septic loading from 6 sub-watersheds in the Madison watershed for TMDL development.
P5	DEQ, DNRC, NRCS, irrigation districts, CDs, watershed groups, private landowners	Provide technical and/or financial support for efforts designed to reduce irrigation-induced NPS pollution.	• Technical and/or financial support provided to at least 3 projects	• 319 contract # 213023 (Lost Horse Creek Streamflow Enhancement), 214008 (Deep Creek Watershed Restoration Project), 213026 (Teton River Watershed-Riparian Improvements), 214010 E&O Mini-grant (Bitterroot Irrigation Water Distribution and Conservation Tour).
P6*	DEQ	Develop numeric nutrient water quality standards and implementation procedures for surface waters.	• Standards and implementation procedures in place by 2012	• Standards and implementation procedures were adopted by the Board of Environmental Review in 2014. NPS implementation is progressing through the MAS and TMDL development process.
			• BER-approved nutrient trading policy for point/ nonpoint sources	• The Nutrient Trading Policy was approved by the BER in December 2012.
P7*	DEQ	Develop technical basis for a lake classification system based on nutrient status.	• Lake classification system by 2017	• Canyon Ferry Reservoirs standards work in 2015 will support future lake classification system.

** Indicates a high priority for the NPS Program*

No.	Responsible Party	Actions (Outcomes/Objectives)	Measurable Milestones/Outputs	2015 Accomplishments
P8*	DEQ	Develop and circulate numeric standards for all pesticides identified in Montana groundwater and surface waters.	• Adoption of numeric standards for all pesticides within 4 years of DEQ notification of detection in state waters	• Department of Agriculture identified 3 new pesticides in groundwater in 2014 and 2 in 2015. DEQ and EPA are developing proposed criteria for these 5 pesticides that should become rule in 2016.
P9	Counties, with DEQ support	Encourage the establishment of additional Water Quality Protection Districts (WQPD) within urban areas.	• One additional WQPD established by 2017	• No activity in 2015.
P10*	Cities and Counties	Incorporate NPS pollution prevention into city and county planning processes.	• By 2017, 3 additional communities have incorporated NPS pollution prevention into local planning processes	• NPS program staff worked with the Greater Gallatin Watershed Council on the Story Mill Project to help the City of Bozeman address NPS pollution in the East Gallatin River and Sourdough (Bozeman) Creek. NPS program staff also assisted the Bozeman High School Parent Advisory Council with the development of a scope of work for the Mandeville Creek Project designed to help the City of Bozeman address NPS pollution from urban runoff.
P11	DEQ	Support improved urban stormwater management and information sharing through the MS4 task force.	• Active MS4 task force by 2013	• NPS program staff participated in one MS4 Task Force meetings and presented on the 319 program. NPS program staff will continue to participate in MS4 Task Force meetings.
P12*	DEQ, MWCC, collaborate with other federal, state, and local agencies	Develop a system or network for long-term monitoring that will produce data to evaluate water quality trends in waterbodies with completed TMDLs.	• Develop system/ network architecture by 2015	• DEQ lacks the resources to cover the whole state or determine trends on all waters with TMDLs completed. Therefore, DEQ will assess water quality status and trends in priority areas through fixed station monitoring and is currently working on a QAPP for a fixed station monitoring program that is flexible enough to fit into priority planning areas.
			• Begin implementation by 2017	• This includes Madison-Missouri River Monitoring (Northwestern); Flathead Basin Monitoring Network (FLBS); Clark Fork Basin Nutrients Monitoring Network (Avista, UM, and City of Missoula); Upper Clark For River Metals Monitoring (DEQ Remediation); Status and Spatial Trend monitoring within Targeted Project Areas (Musselshell and Red Rocks Project Areas); Oil and Gas Monitoring in Eastern Montana; Lake Koocanusa and Kootanai River Selenium and Nutrient monitoring (COE and USGS); New World Mine District Metals Monitoring (USFS); Powder River, Rosebud Creek and Tongue River Surface Water Monitoring Network (USGS); Fork Peck Water Quality Monitoring (COE); East Fork of the Poplar River Water Quality Monitoring at the Canadian Border (USGS); USFS Water Monitoring Network that administers their on-the-ground activities; Continuous Water Temperature Monitoring (USGS); Northwest Lakes Volunteer Monitoring Network; and effectiveness monitoring that characterizes water quality improvement resulting from the implementation of restoration projects.

** Indicates a high priority for the NPS Program*

No.	Responsible Party	Actions (Outcomes/Objectives)	Measurable Milestones/ Outputs	2015 Accomplishments
P13	DEQ	Develop guidance for water quality monitoring.	• Guidance for monitoring under Section 319 contracts	• The Guide for Estimating Load Reductions was updated in 2015.
			• QAPP guidance	• No activity in 2015.
			• SAP guidance	• SAPs were developed for Rimini Road, Deep Creek, Cooke City/Soda Butte Creek, Ninemile Creek, Bull River, and Upper Lolo Creek. SAPs were updated for 4 volunteer monitoring groups.
P14	DEQ, MWCC, MSUEWQ	Provide technical and financial support to volunteer monitoring groups.	• Continue funding for laboratory analysis	• DEQ funded lab analysis support for four volunteer monitoring groups with approved SAPs.
			• Provide on-going technical support for development of QAPPs and SAPs	• WPS staff reviewed four SAPs to guide volunteer monitoring efforts. MSUEWC provided support to the Broadwater CD to develop a SAP for their monitoring efforts.
P15	DEQ	Develop a nutrient trading policy that encourages nutrient load reductions consistent with WQIP/ TMDLs.	• Nutrient Trading Policy and demonstrated effective trades	• The Nutrient Trading Policy was approved by the BER in December 2012. DEQ, in conjunction with several consultants, prepared a "Water Quality Trading Business Case for Montana" to help evaluate nutrient trading opportunities in MT. Nutrient trades have been incorporated into the City of Helena, Billings, and Missoula's wastewater discharge permits. DEQ is currently working with several watershed groups in evaluating nutrient trading opportunities.

** Indicates a high priority for the NPS Program*

Five-year Action Plan for addressing NPS Pollution – Education and Outreach Actions				
No.	***Responsible Party***	***Actions (Outcomes/Objectives)***	***Measurable Milestones/ Outputs***	***2015 Accomplishments***
EO1*	MTWC, DEQ	Incorporate school lesson plans that address water resources and NPS pollution issues.	• Incorporate up to 20 lessons into the appropriate units of study at 60 elementary schools, 30 middle schools, and 20 high schools	• With funding from EPA, MTWC instructed two graduate classes: Lake Ecology (focused on grades 7-12), and Watershed Science (online course focused on grades K-8). 28 teachers attended and developed lesson plans to be used in their classrooms to reach 560 students.
				• MTWC led a full day workshop for the MT Environmental Association conference to teach water quality monitoring skills to educators and nonprofit outreach specialists. This was partially funded with a 319 mini-grant through MACD.
				• MTWC partnered with the Ruby Watershed Council to provide education to the Alder School (K-8) on the following topics: water quality, NPS, erosion, and stream restoration. MTWC also partnered with the Ruby Habitat Foundation to teach aquatic invertebrate sampling methods to Sheridan High School students. 139 students were impacted.
				• MTWC had direct instruction with 67 educators and 185 students through in person and online training.
				• The Flathead Community of Resource Educators Watershed Education Committee contracted with MSU to create a companion curriculum guide to the *Flathead Watershed Sourcebook: A Guide to an Extraordinary Place*. This curriculum was completed in 2015 and is planned to be distributed to middle school teachers in the Flathead Valley in spring of 2016. This project was partially funded with two 319 mini-grants.
EO2*	MWCC	Provide support and promote the development and coordination of watershed groups through MWCC activities, training workshops, advertising campaigns, etc.	• Annual watershed coordinator training	• MWCC hosted a funding panel discussion for watershed groups at the joint AWRA/MWCC biennial Symposium in October. MWCC hosted "Passive Restoration Workshop" in August.
			• Annual watershed tour	• No tour in 2015, seeking sites to tour in 2016.
			• Bi-weekly newsletter	• MWCC published weekly e-news throughout 2015.
			Coordinate a volunteer water monitoring group to collect water quality data and human-effects info within specific watersheds.	MWCC's Monitoring Work Group leader from DEQ presented on volunteer monitoring activities and support at several professional conferences, including the American Water Resources Association Montana Chapter annual conference and the Rountable on the Crown of the Continent Citizen Science Workshop. The Monitoring Work Group also continued development of a monitoring resource library to facilitate monitoring-oriented information sharing.
EO3*	DEQ	Support riparian and wetland buffer education campaigns.	• Support 5 county-wide campaigns by 2017	• NPS staff assisted the Gallatin River Task Force with their efforts to encourage riparian buffer restoration and maintenance on the West Fork Gallatin River.

** Indicates a high priority for the NPS Program*

No.	Responsible Party	Actions (Outcomes/Objectives)	Measurable Milestones/Outputs	2015 Accomplishments
EO4	DEQ, MDT, MSU	Promote and support BMP training for road maintenance personnel.	• Compile library of training materials	• No activity in 2015.
			• Bi-annual training for road maintenance personnel	• No activity in 2015.
EO5	DEQ	Develop and deliver multi-media presentations that teach basic concepts in reducing NPS pollution from agricultural sources.	• Develop at least 2 presentations	• No activity in 2015.
			• Deliver each presentation twice by 2017	• No activity in 2015.
EO6	DEQ	Support conferences that address stormwater pollution prevention and control strategies.	• Two stormwater conferences held between 2012 and 2017	• One conference was held in Billings in 2014.
EO7	DEQ	Identify and/or develop monitoring and assessment methods for private landowners to inform land management decisions.	• Develop self-assessment tool for private landowners by 2017	• Continued to distribute the On-Site Guide for Livestock Operators at NRCS offices, State Water Plan meetings and the MACD Annual Convention.
EO8	DEQ, MWCC, MSUEWQ	Provide training opportunities for volunteer monitors.	• Training provided to 10 watershed groups by 2017	• DEQ staff provided technical support, including quality assurance and quality control, field methods training and monitoring documentation review) for four of Montana's volunteer monitoring programs. DEQ also provided material support for MSU Extension Water Quality Program to acquire volunteer monitoring equipment and provide ongoing training and technical guidance.
EO9	DNRC, Montana Logging Assoc., and MSU Forestry Ext.	Promote and conduct forestry BMP and stewardship educational workshops and programs.	• Annual BMP/SMZ education workshops for loggers and landowners	• DNRCs Forestry Program held 5 BMP/SMZ workshops in 2015 with 185 attendees.
			• Forest stewardship program targeting small landowners throughout Montana	• MSU Extension Forestry hosts 3-5 three day stewardship workshops each year, and a four hour Forestry Mini-College in the spring.

** Indicates a high priority for the NPS Program*

Appendix C – Fiscal Year 2015 Section 319 Project Awards

Project Name	Project Sponsor	DEQ Project Officer	DEQ Contract Number	319 Funds	Non-Federal Match Funds	Total Project Cost
Watershed Restoration Projects						
Upper West Fork Nitrogen and Sediment Reduction	Blue Water Task Force	Mark Ockey	216001	$ 130,000	$ 101,700	$ 231,700
Story Mill and Camp Creek Restoration	Greater Gallatin Watershed Council	Mark Ockey	216002	$ 125,000	$ 83,600	$ 208,600
French Creek and Moose Creek Restoration, Big Hole River Watershed	Big Hole Watershed Committee	Eric Trum	216003	$ 225,000	$ 150,000	$ 375,000
Upper Ninemile Creek Mine Reclamation	Trout Unlimited	Eric Trum	216004	$ 225,000	$ 200,000	$ 425,000
Flathead Ripples of Change - Phase 2	Flathead Lakers	Eric Trum	216005	$ 35,000	$ 23,500	$ 58,500
Upper Lolo Creek Sediment Reduction Phase 1 - Planning and Design	Clark Fork Coalition	Katie Eiring Steele	216006	$ 30,000	$ 20,000	$ 50,000
Sediment Reduction in Upper Sleeping Child and Rye Creeks	Bitter Root Water Forum	Katie Eiring Steele	216008	$ 105,000	$ 70,000	$ 175,000
FY2015 Education & Outreach Mini-Grants	Soil and Water Conservation Districts of Montana	Katie Eiring Steele	216007	$ 25,000	$ 17,000	$ 42,000
Big Sky Watershed Corps Support (Added to existing open contract)	Montana Watershed Coordination Council	Robert Ray	214011	$ 49,500	$ 40,000	$ 89,500
		Total		**$ 949,500**	**$ 705,800**	**$ 1,655,300**

Appendix D – Section 319 Projects Closed in 2015

Contract Number	Contractor	Project Name	Amount Expended	Final Payment Date	Closed on initially agreed date
212054	Bitter Root Water Forum	Bitterroot Watershed Restoration Planning	$16,800	1/18/2015	No
213029	Trout Unlimited	Upper Little Blackfoot River Metals Restoration Strategy	$ 20,000	1/22/2015	Yes
211028	Soil and Water Conservation Districts of Montana	Conservation Advisor for Livestock Operations	$ 67,770	2/17/2015	No
213032	MSU Extension Water Quality	Volunteer Monitoring - Addressing Shared Statewide Goals	$ 22,000	2/22/2015	Yes
211083	Flathead Conservation District	Haskill Creek - Reimer Reach	$ 39,930	2/23/2015	Yes
213025	Greater Gallatin Watershed Council	Development of Watershed Restoration Plan	$ 30,000	2/23/2015	Yes
212055	The Blackfoot Challenge, Inc.	Watershed Restoration on Cottonwood Creek, South Fork Poorman Creek and Ashby Creek	$ 121,320	2/26/2015	Yes
213022	Soil and Water Conservation Districts of Montana	FY13 Education & Outreach Mini-Grants	$ 21,000	3/24/2015	Yes
213020	Trout Unlimited	East Fork Bitterroot River, Watershed Improvement Project	$ 35,000	5/21//2015	No
213028	Sun River Watershed Group	Reducing Nitrogen, Phosphorus, and Sediment Nonpoint Source Pollution at Muddy Creek Watershed	$ 0	6/22/2015	Yes
211082	Teton River Watershed Group	Deep Creek/Teton River - Phase II	$ 50,069	6/26/2015	No
212060	Watershed Restoration Coalition of the Upper Clark Fork, Inc.	Brown's Gulch Restoration Project: Phase 1	$ 98,624	8/15/2015	No
213026	Teton River Watershed Group	Reduce Nonpoint Source Pollution in the Teton Watershed	$ 5,427	8/5/2015	Yes
213031	City of Bozeman	Protecting Bozeman's Surface Waters	$ 10,000	8/7/2015	No
212056	Blue Water Task Force	West Fork Gallatin River Nitrogen Reduction Plan and Implementation	$ 50,000	8/18/2015	Yes
211079	Sun River Watershed Group	Muddy Creek Restoration Project	$ 59,069	8/21/2015	No
215011	Bitter Root Water Forum	Riparian Restoration and Sediment Reduction on Rye Creek	$ 36,286	9/19/2015	No
212001	Energy Laboratories	Analytical Lab Services Support of Volunteer Monitoring	$ 39,030	11/09/2015	Yes
211069	Fergus Conservation District	Big Spring Creek Machler Restoration	$ 8,520	11/9/2015	No

Appendix E – Section 319 Mini-Grant Projects Awarded in 2015

Contract	Project Sponsor	Project Title	Award
Mini-Grants Awarded in Spring 2015 by SWCDMI (DEQ contract #214010)			
SWCDMI-MG14-04	Big Hole River Foundation	Trout in the Classroom	$ 1,500
SWCDMI-MG14-05	Big Hole Watershed Committee	Drought Management Plan Web Page	$ 2,000
SWCDMI-MG14-06	Bitter Root Water Forum	Bank Bioengineering Workshop - CANCELLED Fall 2015	$ 2,000
SWCDMI-MG14-07	Greater Gallatin Watershed Council	Stream Team Volunteer Training	$ 2,000
SWCDMI-MG14-08	Gallatin Valley Land Trust	Gallatin Valley Conservation Partnership	$ 2,000
SWCDMI-MG14-09	Lolo Watershed Committee	Water to Web: Water Quality with Local Students	$ 1,943
SWCDMI-MG14-10	Granite Conservation District	Granite Watershed Group Fall Tour	$ 1,000
SWCDMI-MG14-11	Whitefish Lake Institute/ Flathead CD	Flathead Watershed Educator's Guide Phase II	$ 2,000
SWCDMI-MG14-12	Whitefish Lake Institute/ Flathead CD	Flathead Watershed Educator's Guide Phase III	$ 2,000
Mini-Grants Awarded in Fall 2015 by SWCDMI (DEQ contract #216007)			
SWCDMI-MG15-01	Big Hole Watershed Committee	Payment for Ecosystem Services Outreach	$ 1,000
SWCDMI-MG15-02	Granite Headwaters Watershed Group	SHWG Semi Annual Newsletter	$ 2,000
SWCDMI-MG15-03	Gallatin River Task Force	Septic Smart: Big Sky	$ 1,500
SWCDMI-MG15-04	Gallatin Local Water Quality District	2015 Gallatin State of the Waters Report	$ 2,000
SWCDMI-MG15-05	Zoo Montana	Bank Stabilization Demonstration	$ 2,000
SWCDMI-MG15-06	Gallatin Valley Land Trust	Improving the East Gallatin River through Ag and Urban Ed	$ 2,000
Calendar Year 2015 Total			**$ 29,943**

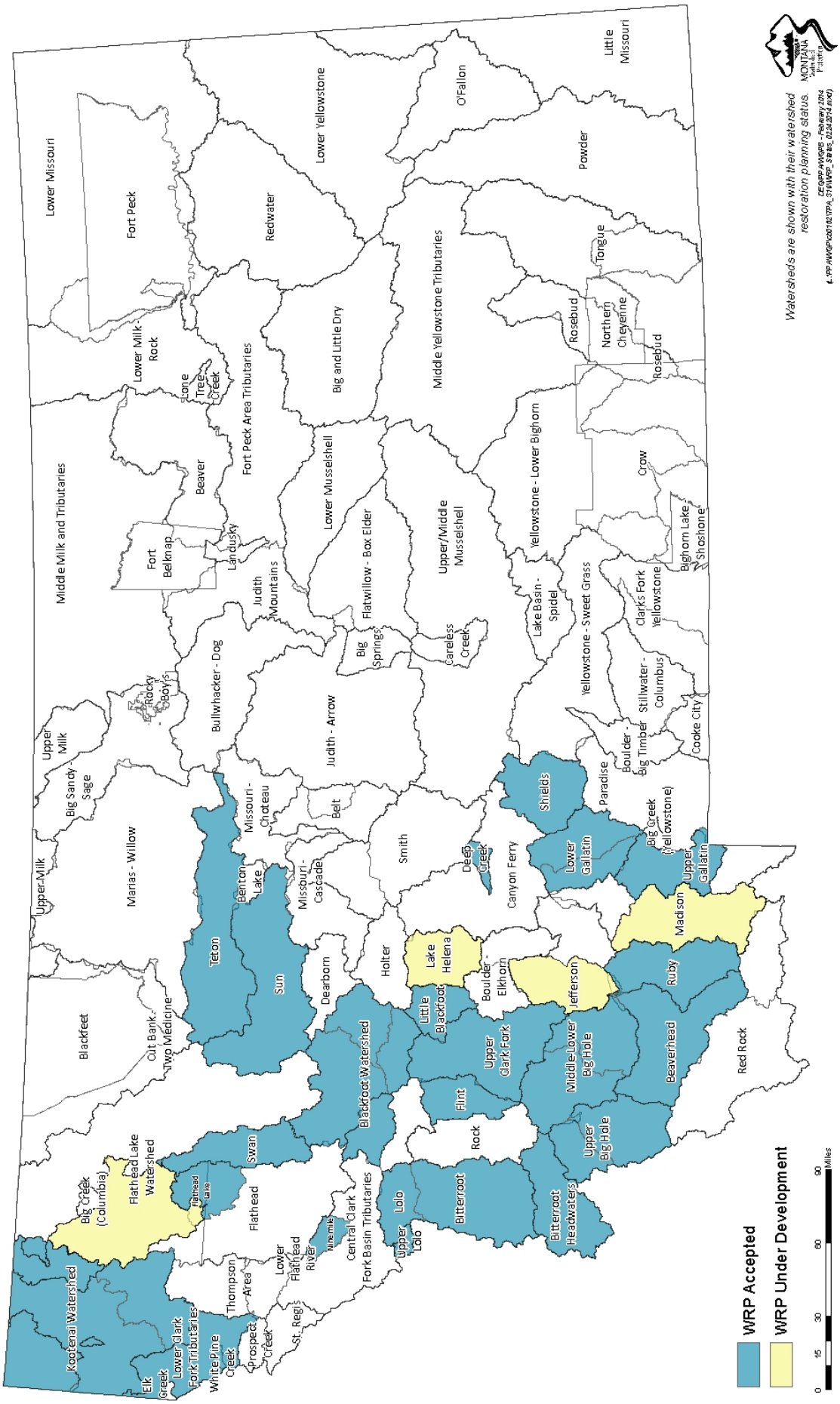
Appendix F—Volunteer Monitoring Lab Analysis Support Grants in 2015

Sponsor	Project	Project Description	Funding Award
Water & Environmental Technologies	Little Bitterroot Lake Eutrophication Study, Marian, MT	This project involves water quality and algae sampling on Little Bitterroot Lake to answer questions about spatial and vertical variability of algae and nutrient concentrations and how they are affected by land-use, climatic, and watershed conditions. Samples will be taken from Little Bitterroot Lake during mid-summer of 2015, including spatial and depth profile sampling for field parameters, nutrients, and chlorophyll-a.	$1,490
Gallatin River Task Force	The Gallatin River Task Force Community Water Quality Monitoring Program	The Gallatin River Task Force Community Water Quality Monitoring Program (CWQMP) is designed to assess water quality issues uncovered by the Upper Gallatin TMDL assessments: wastewater, road traction sand/salt, and sediment. The Task Force and the Big Sky community will monitor for the successes/failures of future restoration efforts and to track any trends or episodic events in the water quality parameters. At 16 sites, the following parameters are monitored: water temperature, conductivity, turbidity, pH, chloride, total nitrogen, nitrate + nitrite, total phosphorous, total dissolved solids, sediment size, total coliform, E.coli, and dissolved oxygen. In addition, photo documentation of algae is conducted and macroinvertebrates samples are collected and analyzed. Water sampling events take place in March, May, August, and January to capture all distinct hydrologic phases (baseflow, pre-snowmelt, and snowmelt) and biologic phases (growing and dormant seasons). For this project, the Task Force is requesting funding for total nitrogen, nitrate + nitrite, and total phosphorus analyses for the summer baseflow event.	$1,615
Greater Gallatin Watershed Council	Gallatin Stream Teams, Bozeman MT	Gallatin Stream Teams is a volunteer stream monitoring program operated in partnership between the Greater Gallatin Watershed Council and the Gallatin Local Water Quality District. Since 2008, citizen scientists have been collecting water quality data on local streams in the Lower Gallatin Watershed. In 2015, sampling will occur in July, August, and September on Bozeman Creek, Matthew Bird Creek, and the East Gallatin River.	$1,167
Madison Conservation District	Madison Stream Team, Ennis MT	The Madison Stream Team is a volunteer driven effort to engage community members in the collection of water quality data in the Madison Valley. The goal of this monitoring project is to increase community engagement in water resources and data collection to enhance understanding of local water resources. Additionally, the project seeks to identify sources of possible water resource impairments identified in the TMDL process, and make connections with land managers in an attempt to make resource improvements.	$3,000

Appendix G—Watershed Restoration Plan (WRP) Status

WRP	Sponsor	Funding	WRP Status
Beaverhead	Beaverhead Watershed Committee	2010 TMDL 319 (contract 210140)	ACCEPTED (February 2014)
Bitterroot	Bitter Root Water Forum	2012 319 (contract 212054)	ACCEPTED (April 2014)
Blackfoot River	Blackfoot Challenge	2012 319 (contract 212055)	ACCEPTED (December 2014)
Deep Creek	Broadwater Conservation District	2013 Purchase Order	ACCEPTED (January 2014)
Flathead Lake	Flathead Lakers	2012 319 (contract 212061)	ACCPETED (December 2014)
Flint Creek	Flint Creek Watershed Group	2009 TMDL 319 (contract 209074)	ACCEPTED (June 2014)
Kootenai River Basin	Kootenai River Network, Inc.	2010, 2012, 2013 319 (contract 215008)	ACCEPTED (December 2015)
Lake Helena	Lake Helena Watershed Group/Lewis & Clark Water Quality Protection District	2011 319 (contract 211072)	FINAL DRAFT SUBMITTED Projected to be accepted by DEQ early 2016.
Little Blackfoot	Trout Unlimited	2010, 2011 319 (contract 215043), 2013 319 (contract 213029)	Metals: ACCEPTED (November 2014) Sediment and Nutrients addendum: UNDER DEVELOPMENT: scheduled to be completed by June 2016.
Lolo Creek	Lolo Watershed Group	2009 TMDL 319 (contract 209075)	ACCEPTED (March 2013)
Lower Clark Fork TMDL Planning Area	Lower Clark Fork Watershed Group	2005, 2009 319, 604(b) funding	ACCEPTED (October 2010)
Lower Gallatin	Greater Gallatin Watershed Council	2013 319 (contract 213025)	ACCEPTED (December 2014)
Middle and Lower Big Hole Watershed	Big Hole Watershed Committee	2010 319 (contract 210109)	ACCEPTED (September 2013)
Ninemile Creek TMDL Planning Area	Trout Unlimited	2011 319 (contract 212059)	ACCEPTED (February 2013)
Ruby	Ruby Watershed Group	2007 319 (contract 207042)	ACCEPTED (July 2015)
Shields River Watershed	Park Conservation District	2009 319 (contract 209063)	ACCEPTED (September 2012)
Sun River	Sun River Watershed Group	2009 319 (contract 209065)	ACCEPTED (February 2012)
Swan Basin	Swan Ecosystem Center	2007, 2008, 2009 319 (contract 209068)	ACCEPTED (October 2010)
Teton River	Teton Watershed Group	2009 319 (contract 209062)	ACCEPTED (October 2012)
Upper & North Fork Big Hole Watershed	Big Hole Watershed Committee	2009 319 (contract 209061)	ACCEPTED (December 2012)
Upper Clark Fork River Tributaries	Watershed Restoration Coalition	2007 TMDL 319	ACCEPTED (December 2012)
Upper Gallatin River	Blue Water Task Force	2009 TMDL 319 (contract 209078)	ACCEPTED (September 2012)
Clearwater River	Clearwater Resource Council	2009 319 (contract 209066)	Not complete WRP; preliminary research done; no plans for writing actual WRP yet.
Upper Jefferson	Jefferson River Watershed Council	2010 TMDL 319 (contract 210128)	Final Draft Submitted. In draft form spring 2011.
Big Fork	Flathead County	2009 319 (contract 209064)	NOT ACCEPTED. Completed, however, county unable to address DEQ's comments on addressing area sources & actions.
Big Spring	Fergus County Conservation District and Big Spring Creek Watershed Council	2008 319 (contract 208028)	NOT ACCEPTED. Not intended to be a complete WRP; final product submitted does not meet all 9 minimum elements.

Appendix H—Watershed Restoration Plan (WRP) Status Map



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