Developing a Framework for Integrating Wetland Considerations into Watershed Restoration Plans

National Priority Area:

1.a.a, 1.a.b & 1.a.d: Wetland Program Planning based on the Four Core Elements; including core elements, 1) Monitoring and Assessment, 2) Regulatory Activities and 3)Voluntary Restoration and Protection

1.b: Regulation (Enhancing Wetland Protection); including, (i)Improving the effectiveness of compensatory mitigation; (ii)Refining the protection of vulnerable wetlands and aquatic resources

1.c: Monitoring and Assessment; including, (ii)Wetland Monitoring Surveys and, (iii)Wetland Mapping

Regional Priority Area:

Evaluation and planning of mitigation in a watershed context, Data Management and Regional Technology and Information Transfer and Facilitation

Name of Applicant:

Montana Department of Environmental Quality

Contact Information:

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Geographic location: 2 Demonstration Watersheds (Western and Eastern Montana)

Total Project Costs: $135,320

Amount Requested: $101,490

Abstract:

Integrating wetlands into watershed planning is a demonstration project using the steps outlined by the Center for Watershed Protection to incorporate wetlands into comprehensive watershed restoration plans. It also serves to highlight the contribution of wetlands to the functions of the broader aquatic ecosystem and how wetland restoration can be used to obtain watershed goals and objectives. The goals of the project are: 1) develop two comprehensive watershed restoration plans; 2) increase the capacity of local governments and watershed groups to develop comprehensive watershed restoration plans; 3) demonstrate the steps, techniques and tools necessary for incorporating wetlands into watershed planning; 4) demonstrate how the incorporation of wetlands into watershed restoration plans can contribute to reducing pollutant loads identified in the TMDL planning process; and 5) expand the incorporation of wetlands into other watershed restoration plans through the transfer the knowledge gained in the demonstration watersheds. Montana Department of Environmental Quality's Wetland Program staff, the Montana Wetlands Legacy Partnership and others would accomplish these goals through: 1) Actively participating in the watershed restoration planning process, 2) providing technical and financial assistance to watershed groups for the incorporation of wetlands into the watershed restoration plan, 3) mapping wetlands to inventory and assess wetland function and condition, for use in prioritizing wetlands for protection and restoration sites to accomplish watershed goals; 4) providing technical trainings to watershed groups; and 5) developing a step-by-step guidance and provide training on the process of incorporating wetlands into watershed restoration plans.

EPA-REG8-09WPDG

Project Title:
Montana In Lieu Fee Aquatic Resource Mitigation Program Development.

Regional Priority Area/National Priority Area:
Wetland Protection and Restoration / Improving the Effectiveness of Compensatory Mitigation

Name of Applicant: **Montana Department of Environmental Quality (MDEQ)**

Key personnel and contact information:
Lynda A. Saul, PWS, Wetland Program Coordinator
(406) 444-6652; lsaul@mt.gov

Geographic Location: **Montana Statewide**

Total project cost and dollars requested:
$110,834 Total project cost. $83,126 EPA funds requested.

Abstract:
This proposal's main objective is to increase the amount of wetland, riparian, and stream restoration and protection in Montana through development of a new program to increase compensatory mitigation for 404-related impacts. More specifically, through this grant, we propose to create the Montana In Lieu Fee Aquatic Resource Mitigation Program (ILF) that will provide a viable third-party compensatory mitigation option for 404-permit applicants whose projects will impact not only wetlands, but also streams, riparian areas, and other regulated aquatic resources. Currently, the only umbrella mitigation bank in Montana offers credits in a limited service area of western Montana. The proposed ILF program will complement this and any future banks by consistently offering mitigation credits in watersheds where banks do not exist or where banked credits are not available. Overall, co-existence of banks and ILF in Montana will represent a healthy competition which will help to keep mitigation crediting affordable and reliable for those needing to purchase credits. In developing this ILF program, MDEQ will: 1.) identify an existing entity as sponsor or create a new 501c3 entity to administer the program; 2.) complete an ILF MOA with Army Corps of Engineers and other regulatory agencies; and, 3.) establish an Interagency Review Team to review and provide guidance for ILF projects once implementation begins following the close of this grant. The final product for this grant will be a statewide ILF program for Montana that in all aspects is ready for immediate implementation. An ancillary benefit expected from this project will be increased avoidance of aquatic impacts in Montana as a result of project sponsors interest in avoiding costly mitigation.

EPA-REG8-09WPDG

Project Title: **Enhancing MDEQ 401 Certification and CWA Integration.**

EPA National Priority Area:
1) Wetland program planning based on the regulatory core element.
2) Regulation: enhancing wetland protection.
3) Regulation i) improving the effectiveness of compensatory mitigation.

EPA Regional Priority Areas:
1) Evaluation and planning of mitigation in a watershed context
2) Data management.

Name of Applicant: **Montana Department of Environmental Quality**

Key personnel and contact information:
Lynda A. Saul, PWS, Wetland Program Coordinator
(406) 444-6652; lsaul@mt.gov

Geographic Location: **Montana Statewide**

Total project cost and dollars requested:
$214,369 Total project cost. $160,777 EPA funds requested.

Abstract/project summary:
This two year project seeks to enhance wetland protection in Montana by strengthening the State's Clean Water Act (CWA) Section 401 Water Quality Certification program for 404 permits. A second objective is to increase coordination and integration of CWA programs at Montana Department of Environmental Quality (MDEQ) to improve the protection of wetland and streams in Montana. The main tasks to be accomplished and final products include: 1) develop formal written guidance for Clean Water Act Section 401 Water Quality Certification conditions for 404 permits, 2) develop more comprehensive conditions to the Corps of Engineers for 5-year re-issuance of Nationwide Permits and for the Yellowstone Special Area Management Plan, 3) evaluate federal and state databases and develop recommendations on databases that could be used or expanded to track 401 certification for 404 permits, and 4) research CWA Section 401 and 404 wetland related complaints and enforcement actions to determine trends and impediments to timely and appropriate enforcement for 401 and 404 violations, and provide recommendations for program improvement and identify outreach opportunities to increase wetland compliance. This proposal is in response to recommendations from a report prepared for MDEQ titled "Increasing Protection for Montana's Wetland and Riparian Areas: Challenges and Opportunities" (ASWM, February 2009). MDEQ management supports the report findings which identify numerous steps to leverage exiting authority and strengthen the 401 certification program in Montana and increase Clean Water Act integration at MDEQ.

Applicability, Demonstration and Research on the Use of Treatment Wetlands in Region 8

Priority Areas:
a) Wetland Program Planning: Core Element C
b) Regulation: approaches 4 and 5
c) Monitoring and Assessment: extent and effects of pollution and development of monitoring surveys
Regional: Montana Strategic Direction 4, 5, and 7

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Missouri River Basin (HUC Code 100200 -- Missouri Headwaters)

Total Project Cost (including matching) $298,152
Federal (EPA) cost $198,152 (66%)

Abstract:
Treatment wetlands (TWs) are ecologically-based "green" water treatment systems offering many ecological services to a watershed. Though thousands of TWs are presently treating contaminated water worldwide, rapid advancements of this relatively new technology have rendered the majority of these systems obsolete and effluent water quality from the newest generation approaches the quality of the most advanced municipal treatment systems at a fraction of the cost. Nonetheless gaps in current knowledge, and more importantly popular and regulatory perception, impede use of this technology in cold-climate areas such as EPA Region 8. We propose to construct a state-of-the-art research and demonstration TW system, develop and implement a monitoring plan to determine both its treatment and ecological efficacy, and disseminate the resulting information through formalized channels. The system will be monitored for performance criteria over a minimum two full years of operation to characterize system start-up and seasonal variation effects. Additional monitoring will focus on the ecological services by applying and verifying use of accepted ecological assessment tools to treatment wetlands. Thus, outputs include development of pilot treatment wetland to demonstrate feasibility of TW systems in the region, monitoring of performance data, verification of the applicability of existing ecological assessment methods to TWs, and development of information that will contribute to a broader understanding of wetland resources across a state or tribal nation. Long term outcomes include development of design guidelines leading to improved decision-making by state and local officials, facilitation of the TW permitting by regulatory agencies in the region, and providing a learning center through which the general public can witness the benefits of wetlands.

Montana Wetland Grant Proposal

2009 Wetland Program Development Grants - EPA Region 8
Montana Water Center/Montana Watercourse
June 2009

Project Title: ***Building Wetland Professional Capacity in Montana***
Priority Areas: National Priority Areas 1b (regulation) and 1c (monitoring and assessment); Region 8 Priority: Evaluation and Planning of Mitigation in a Watershed Context; Montana Wetlands Strategic Framework Direction #2: Professional Training.
Name of Applicant: Montana Water Center, Montana State University.
Key personnel: Principal Investigator - Gretchen Rupp, MS, PE, Director, Montana Water Center, 101 Huffman Building, MSU-Bozeman, Bozeman, MT 59717-2690.
grupp@montana.edu, (406)994-6690, fax (406)994-1774, http://water.montana.edu/
Geographic Location: Montana (statewide).
Total project cost and dollars requested: $87,930; $65,930
Abstract: Montana natural-resource professionals in positions ranging from watershed manager to university professor seek in-state wetland training opportunities. *The goal of this project is to build professional capacity regarding wetland science, engineering and regulation within Montana.* The objective that supports this goal is to initiate a semi-annual training series that will become self-sustaining. Two audiences – wetland professionals and less specialized natural-resource professionals – will be served. The main tasks to be accomplished are to 1) conduct a training needs assessment; 2) identify appropriate trainers within and outside the state, and potential in-state training sites and facilities; 3) work with Montana State University's Extended University to establish a procedure for granting continuing-education credits for wetland professional trainees, and with the Society of Wetlands Scientists to assure Professional Wetlands Scientist credit for courses; 4) plan and conduct two trainings; and 5) conduct outreach in-state to inform natural-resource professionals regarding training availability, and convey project findings and recommendations to peer organizations outside Montana. The medium-term outcomes of the project will be new institutional capacity to provide continuing education, and better understanding among Montana professionals regarding wetland characteristics, the tools available to assess and manipulate them and the rules that govern them. In the longer term, Montana wetland delineations and mitigation projects will have an increased likelihood of success, land development will be more sensitive to wetland benefits, university students will be exposed to richer curricula in wetland science and policy, and Montana wetlands will be conserved.

a. Project Title: Development of a Restoration Handbook for Wetlands and Riparian Areas in North-Central Montana

b. National and/or Regional Priority Area(s): 1) National Priority 1.a.d. Wetland Protection and Restoration Plan; 2) National Priority 1.b.i and ii: Improving Effectiveness of Compensatory Mitigation and Protection of Vulnerable Wetlands and Aquatic Resources; 3) Regional Priority Evaluation and Planning of Mitigation in a Watershed Context; 4) Montana Strategic Direction 4, Restoration

c. Name of Applicant: The University of Montana (a state-chartered university under Section 20-25-201 of the Montana Statutes Annotated), Montana Natural Heritage Program

d. Key personnel and contact information: Linda Vance, Ph.D., Senior Ecologist, livance@mt.gov; 406-444-3380; Tara Luna, Restoration Ecologist, tluna@3rivers.net 406- 226-4659 Address for both: Montana Natural Heritage Program, 1515 E. 6th Avenue, Helena, MT, 59620.

e. Geographic Location: The project covers the following USGS hydrologic basins:

North-Central Montana:
1001 Saskatchewan River within Montana
1003 Missouri-Marias River, MT
1005 Milk River, MT

f. Total project cost and dollars required: $83,126 total, with $62,244 requested

g. Abstract:
Although there are several print and electronic resources available to managers and stakeholders wishing to undertake voluntary or mitigation-based restoration activities, they do not provide comprehensive guidelines for the restoration of specific wetland ecological communities and systems endemic to particular areas. This purpose of this project is to develop, publish and distribute a wetland and riparian area restoration handbook for north-central Montana. This publication will be the first in a series of regionally-specific handbooks that will provide a comprehensive framework for innovative technologies to enhance restoration results of degraded natural wetlands and newly created wetland mitigation sites. The output will be a wetland restoration publication specifically geared toward the north-central ecoregion of Montana. It will include a narrative of ecological reference sites, a restoration site suitability screen to support decision making about success potential, specific restoration guidelines developed for north-central Montana wetland systems and an overview of restoration activities.