



Montana Department of Environmental Quality  
PPA/WQP/WPS  
Attention: Kristy Zhinin  
1520 East Sixth Avenue  
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Helena, MT 59620-0901

*For Department Use Only:*

Received By: \_\_\_\_\_

Date: \_\_\_\_\_

Application Number: \_\_\_\_\_

Budget Submitted: \_\_\_\_\_

## **Montana DEQ 319 Mini-Grant Application**

*Please limit your application to 5 pages total.*

*Notice : Applicants **must** submit both a hardcopy and electronic application to DEQ NPS Outreach and Education Coordinator, Kristy Zhinin. [kzhinin@mt.gov](mailto:kzhinin@mt.gov) 406-444-7425. Please refer to mini-grant call for applications for more information. Make sure to **address all 13 items** in this application, in this format, to be eligible for the grant. If the item does not apply (example # 12- no site event) write N/A.*

### **Contact Information:**

*Applicant name, organization & contact information (address, phone, email, fax)*

Debra Earl  
Montana Watercourse / PO Box 170575 / Bozeman, MT 59717

*Tax ID number for fiscal sponsor organization (Fiscal sponsors can be a school, community group, non-profit or other organization. Individuals cannot apply for this grant)*

816010045

### **Project Requirements:**

#### *1. Project title & location*

Montana Watercourse Annual Water Summit  
Lubrecht National Forest  
May 3-4, 2010

#### *2. What nonpoint source pollution or water quality issue does this project address?*

This project addresses education and support for student water quality monitoring programs. The Annual Water Summit, led by the Montana Watercourse, is a unique and powerful opportunity that empowers students and teachers from around the state with water monitoring skills and resources that enable them to play a key role in keeping

Montana's water clean. Without funding for this event, these students and teachers would not have this valuable opportunity.

3. What education and/or outreach activity is planned to address the above issue?

The Water Summit addresses watersheds and water quality by teaching and encouraging students to monitor the biological, chemical and physical properties of water. Educators and students enhance their knowledge of water quality monitoring, local watershed topics, and are able to learn from their peers' experiences. The Summit attracts approximately 50 educators and students from both urban and rural communities. It provides two days of intense, hands-on, in-the-field training focused on water quality, monitoring, river restoration, conservation, land-use, economic impacts, and classroom connections to local watershed projects, which can be used directly in the classroom. This "place-based learning" provides a service to the community by collecting local water quality information, applying science and math knowledge to real world situations, tying students to the community, and demonstrating how to engage students in meaningful learning experiences. The ultimate goal is to create knowledgeable watershed stewards.

In summary, the Water Summit:

- Creates empowered, knowledgeable and skilled students and teachers who perform volunteer water monitoring activities across the state
- Brings together student monitoring groups to share ideas, data, monitoring techniques and more
- Provides expert training sessions to build monitoring capacity
- Partners new and experienced monitoring groups to form self-sustaining mentorships
- Offers presentations led by: natural resource non-profits, academics, public officials, and private professionals
- Is funded exclusively by grants to Montana Watercourse

4. How does the project fit into larger watershed efforts in the region?

The Summit attracts approximately 7-10 student monitoring groups. An example of the Summit fitting into the larger watershed efforts of one region is the ongoing monitoring and restoration work on Fleishman Creek in Livingston. This creek originates in the Bangtail Mountains runs through Livingston and eventually empties into the Yellowstone River. The urban portion of this stream has been modified, straightened and receives polluted urban runoff. A local consulting group, Oasis Environmental and the Curriculum Director, Todd Wester are coordinating education with restoration activities on this stream. The Water Summit will support this group with curriculum, resources and a networking opportunity that will broaden their understanding and options to connect the restoration project, student activities, and the community. Educators and students involved with monitoring Fleishman Creek will meet others who have similar

experiences, learn new monitoring techniques and practice using MTWC's statewide water quality database.

5. Who are the collaborating partners and how will they contribute to the project?

Collaborating partners include the Bureau of Land Management, Environmental Protection Agency, Bluewater Task Force, MSU Water Quality Extension, Livingston School Districts 1&4, Lubrecht Experimental Forest and others that may include Rhithron Technologies, The Blackfoot Challenge, Clark Fork Coalition and Watershed Education Network.

<b>Objectives, Goals &amp; Outcomes</b>
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6. What is the overall goal of the project? What are the specific objectives and tasks for your project?

The project goal for this grant is the successful execution of the Spring 2010 Water Summit for teachers and students where participants can:

1. Identify and understand the methods and protocols (physical, biological and chemical) of water monitoring
2. Improve skills of monitoring
3. Understand the cause and complexity of water quality threats in the state of Montana
4. Explore how to integrate volunteer monitoring into the classroom curriculum using Montana Science Content Standards
5. Design an effective monitoring program for the classroom
6. Understand how to manage and analyze water quality data
7. Learn about careers in the area of water quality, land-use, economics, and more
8. Meet, network and learn from others who have monitoring programs
9. Become better stewards of their local water resources and inspire others in their community to do the same

7. What skills, abilities, and/or knowledge are to be gained from the project activities and how will pre & post-project participant skills, abilities, and/or knowledge be evaluated?

The skills and abilities are listed above in the goals of the project. Completion of each step will indicate successful incremental goal achievement. The Director of the MTWC will closely monitor the progress of each step using a timeline and past experience. Participants will be required to fill out pre and post evaluation questionnaires that assess: knowledge base of water quality monitoring aspects and watershed topics; attitudinal changes based on knowledge; and the success of the event. Comparison of pre / post levels of change will be shared with sponsors. If participants indicate low levels of knowledge in a particular subject, MTWC will provide targeted follow-up to address the knowledge gap. The information gathered on the questionnaire will guide future Water

Summits and other water monitoring trainings conducted by MTWC. The MTWC will follow up at least once with each teacher within six months after the event. MTWC will also monitor follow up activities and requests for monitoring support from Water Summit participants and share with the sponsor upon request.

8. What are the expected measurable outcomes and long-term impacts of the project?

The expected measurable outcomes and long term impacts include:

- Increased participant knowledge of water quality and monitoring techniques
- Stronger student volunteer monitoring network
- More involvement of students in water quality monitoring projects
- Increased student and educator involvement with local water quality restoration projects and water quality protection programs
- Increased data uploads to the MTWC Volunteer Monitoring Database
- Better informed citizens

9. What opportunities exist for project continuation or expansion?

MTWC strives to offer this valuable opportunity annually and will continue to offer the Summit in the future. Having a consistent and reliable program for the student volunteer monitoring network increases participation and ultimately will help expand the network. MTWC continues to request funding and support for this event from a variety of sources.

Project Logistics
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10. Who are the instructors/project leaders & what are their qualifications?

Kathryn Watson, Educational Outreach Coordinator, is in charge of the Water Summit. Kathryn has coordinated water quality and land use watershed management policies with environmental organizations, agencies and the general public, has helped the agricultural community develop best management practices, and has shared water education curriculum with student and adult audiences. Kathryn engages learners with interactive and reflective activities that touch their lives. Her educational background includes a BS in Biology and a Masters in Environmental Management, Economics and Policy from Duke University.

The final agenda will include presentations by experts from MSU Extension Water Quality, resource professionals from various agencies, and special topic experts.

11. If equipment is being purchased, where will it be housed & how will it be maintained?

MTWC will use some equipment that already is stored and maintained by MTWC staff at Montana State University. Other monitoring equipment may need to be purchased depending on the final agenda and the parameters which will be highlighted during the

Summit. This equipment will either be housed by MTWC or given to the student monitoring efforts depending on the need and the total amount of money raised.

12. If funding is needed for a specific site event: where is it, how will transportation be provided & what contingencies have been made for rain days or alternative locations?

Lubrecht Experimental Forrest Conference Center outside of Missoula will be the site of the 2010 Water Summit. Each teacher/student team will provide their own transportation. A portion of the transportation costs will be reimbursed by MTWC. The amount reimbursed is dependent upon the amount of funding raised for the Summit. No contingencies are made for rain dates. The Water Summit will continue in the event of rain, with modifications being made to move some activities indoors if necessary. If an alternative location is necessary, teams will be notified as soon as possible. Several possible alternative locations could be considered where past Water Summits have been held. Partnerships with the aforementioned groups allow MTWC to conduct the Summit without having to provide full compensation for expert speakers or daily activities.

## Budget

13. What is the cost of the project & where will the \$1000 local non-federal in-kind or cash match come from? List by line-item all of the anticipated expenses and match sources, using the following format as a guide:

In kind match will be acquired through participant time and travel to the event as well as presenter time.

	319 Mini-Grant	Other Grant*	Other Grant*	Other Grant*	In Kind	TOTAL
TASK 1: Food/Lodging/Venue expenses	500	1000	500	200	0	2200
TASK 2: travel costs & scholarships	500	1000	400	0		1900
TASK 3: Presenter fees		0	65	235		300
TASK 4: Substitute Fees	500	400		690		1590
<b>TOTALS</b>	<b>1500</b>	<b>2400</b>	<b>965</b>	<b>1125</b>		<b>5990</b>

### Other Funding

*	1	BLM	2400	Secure
*	2	Beim Foundation	965	Outstanding, submitted 1/11/10
*	3	Registration Fees	1125	

**TOTAL 4490**