The Oxbow

FROM THE NORTH DAKOTA STATE WATER COMMISSION

2009 Flooding Sparks Interest in Red River Watershed Institute

The Project WET watershed education program moved its 2009 Institute to the Red River Valley this past July. The 2009 Red River flooding made it quite timely for the institute to be held in the valley as its last stop on the statewide watershed circuit.

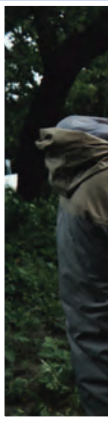
In past years, watershed institutes have covered the central, northwest, and southwest Missouri River watershed areas, Devils Lake, the James and Sheyenne Rivers, and the Mouse River. By moving the institute around the state, and by providing more localized watershed issues and concerns, educators are given a greater opportunity to learn about watershed issues that are important in their own "backyard." There have been a handful of educators over the years who have followed the "watershed circuit" to fully understand the differences and similarities of watershed management throughout North Dakota.

The 2009 Institute gave 28 educators from all grade levels and subject areas insight into Red River watershed issues and concerns. The 2009 flooding dilemma brought an abundance of educators from the Red River Valley to the institute, with nearly two-thirds of the participants from the Fargo area.

The institute included tours of the flood protection works on the Red, Sheyenne, and Maple Rivers in the Fargo, West Fargo, Wahpeton, and Grand Forks areas. In addition, some of the other timely topics covered at this year's institute included:

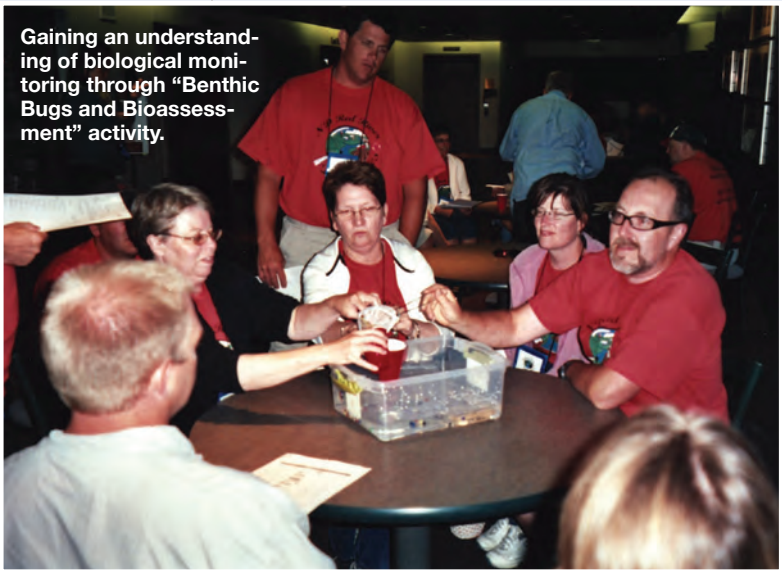
- Flooding, flood control, and flood protection;
- Greenways;
- Rural and urban best management practices;
- Service learning;
- Stream, wetland, and river environmental investigations;
- Water quality assessments;
- Riparian restorations;
- Water and wastewater treatment;
- Wetland management;
- Watershed health;
- Water use, supply, and distribution; and
- Ecological and recreational health.

The institute also included environmental assessments via several rivers and a wetland. A brief water chemical and bioassessment were completed on the Red River and Kelly's Slough. Participants conduced a more complete assessment on the Goose River northwest of Mayville. This assessment con-



Learning about non-point source pollution through "Sum of the Parts" activity.

Making "kick nets."



Gaining an understanding of biological monitoring through "Benthic Bugs and Bioassessment" activity.

sisted of measuring stream flow and discharge; collecting and analyzing macroinvertebrates (bioassessment); analyzing chemical water quality (chemical assessment); and conducting a stream reach survey (habitat, ecosystem, and physical characteristics assessment).

(Left) Participants completing a stream reach survey on the Goose River. (Below) ND Red River Watershed Institute participants.

INSTITUTE FIELD TOURS

- Fargo Water Treatment Plant
- Fargo, West Fargo, Wahpeton, and Grand Forks flood control works
- SS Ruby pontoon ride on the Red River
- Red River headwaters
- Drain 39
- Kelly's Slough
- Red River Riparian Project
- Grand Forks Wastewater Treatment Plant
- Grand Forks Greenway
- Goose and Red River investigations
- Turtle River State Park

GUEST PRESENTERS

Concordia College
Fargo Water Treatment Plant
Grand Forks Greenway
Grand Forks Wastewater Treatment Plant
International Red River Water Institute
Moore Engineering, Inc.
ND Forest Service
ND Parks and Recreation
ND State Water Commission
River Keepers
U.S. Fish and Wildlife Service
U.S. Natural Resource Conser. Service
Wahpeton City Engineer

In addition, institute instructors conducted nine hands-on activities from four major Project WET educator curriculum guides that correlated to the field tours, environmental investigations, and presentations. Several of the activities were "make and take," where the materials were provided for the educators to construct and take back to their own classroom. Participants were also provided with a comprehensive stream investigations field guide, and dozens of other North Dakota water resource and Project WET water education materials.

Carissa Smith, a Fargo ninth grade science teacher said, "I'm already thinking about taking this class next year. It is interesting, educational, and fun. I have been recommending it to colleagues already."

Sherry Heilmann, a second grade teacher from Minot commented, "The watershed institutes are great courses. This one was no exception. It was even better with the high quality individuals involved. . . I knew very little about the Red River watershed, but now I feel I can discuss their issues with more facts rather than opinions."

Jon Gossett, a secondary science teacher from Fargo said, "I did not have a wealth of knowledge in regard to the watershed my family and home are a part of here in the Fargo-Moorhead area. I walk away from this institute with much more knowledge and ready to teach my students about this watershed."

Great emphasis was placed on participant journaling of their institute experiences. Each day participants were required to journal different concepts and reflect on what they had learned during the daily activities, and how they could integrate their newly learned knowledge in their own classroom.

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Instructors at this year's Red River Watershed Institute were Project WET Director, Bill Sharff, and Project WET facilitators Kim Belgarde (Fargo elementary teacher), Angie Bartholomay (Bottineau science teacher), and Dave Marquardt (Fargo elementary teacher).

The institute was funded in part by an EPA Section 319 Non-point Source Pollution Grant, the North Dakota State Water Commission, and local county water resource districts and soil conservation districts.

The Red River Watershed Institute was offered to educators for four graduate credits through Minot State University, North Dakota State University, or the University of North Dakota.

YOU Can Help Shape Missouri River Recovery Efforts

The U.S. Army Corps of Engineers (Corps) and U.S. Fish and Wildlife Service (Service) are conducting a collaborative long-term study and planning process called the Missouri River Ecosystem Restoration Plan (MRERP). The overall purpose of the MRERP is to identify actions that will: restore Missouri River ecosystem functions, mitigate habitat losses, and recover native fish and wildlife on the Missouri River.

As part of this process, the Corps and Service are looking for input from you to help shape the restoration plan – thus, providing a sense of what the Missouri River means to individuals, and what their hopes are for its future.

More specifically, comments are needed regarding the draft study purpose and need statements. In addition, the Corps and Service are looking for people to identify potential drawbacks or benefits to specific natural, social, or cultural resources that might be affected by a restoration plan.

A first round of public meetings was already held last August and September, but there is still time to provide input, as the comment period will remain open through Dec. 1, 2009.

If you would like to be a part of this effort to help shape the future well-being of the Missouri River ecosystem, please visit the MRERP website at www.mrerp.org to review information and to provide comments. If you do not have Internet access, you can also contact the Corps by writing:

U.S. Army Corps of Engineers
MRERP Project Manager
601 East 12th Street
Kansas City, MO 64106

State Water Commission Studying Beaver Creek Watershed

In response to significant flooding at Linton earlier this spring, and at the request of the Emmons County Flood Recovery Task Force, the State Water Commission is conducting a watershed investigation, in cooperation with the Emmons County Water Resources Board. This investigation will consider the hydrology of the Beaver Creek watershed in an attempt to find opportunities to provide flood storage above Linton.

Spring 2009 flooding at Linton.

It will also include a hydraulic analysis of Beaver Creek through Linton, extending for some distance upstream and downstream of the city. This effort will attempt to identify measures, especially non-structural, that may be undertaken to reduce flooding from both a planning and emergency standpoint.

The hydrologic model was previously developed and is ready for use, and survey work for the hydraulics is in progress.

In addition, to determine if there is potential for a federally supported flood control project, the Emmons County Water Resource Board has requested a U.S. Army Corps of Engineers, Section 205 flood control study for the Linton area. The Corps' Section 205 program focuses on solving local, site-specific flooding problems in urban areas, towns, and villages.

North Dakota State Water Commission
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