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# NEWS & VIEWS

RED RIVER WATERSHED MANAGEMENT BOARD

## Red River of the North Basin: Basin-Wide Watershed Management Planning

### Location/ Description

The Red River of the North basin covers 45,000 square miles and occupies substantial portions of North Dakota, northwestern Minnesota, southern Manitoba and a very small portion of northeastern South Dakota. The river flows from south to north, bringing water and nutrients to Lake Winnipeg in Manitoba. Flooding and loss of native habitat are significant issues in the Red River basin.

Water resource management in the Red River basin is an international effort. The hydrologic system of the basin is complex, and the multiple-jurisdictional approaches to addressing resources in the basin are numerous.

The proposed Basin-Wide Watershed Management Planning study would integrate several ongoing planning efforts. Study efforts would be guided by and build on International Red River Board and Red River Basin Commission initiatives.

Study tasks include collecting basin-wide LIDAR data, refining hydrologic and hydraulic models, developing a basin-wide flood storage strategy and assessing the potential for restoring aquatic ecosystems and improving water quality throughout the basin.

The study will facilitate local officials' efforts to set reasonable and attainable flood storage and natural resource enhancement goals that would provide both local and regional benefits

### Status

The feasibility cost share agreement was executed on June 4, 2008, with the Minnesota Red River Watershed Management Board and the North Dakota Red River Joint Water Resource District. LIDAR collection of the entire basin began in spring 2008 and was completed in spring 2009. Data delivery will be completed by July 2010.

It is currently available for the mainstem of the Red River including Fargo, ND, Moorhead, MN, and part of the Devils Lake, ND Basin. The U. S. Geological Survey is posting data at: http://lidar.cr.usgs.gov/.

Phase 2 (hydraulics and hydrology) has been initiated and includes the development of a HEC-RAS model for the entire Red River that will be used for project planning and flood forecasting. Scoping of Phase III has been initiated and development of the decision support system will begin in fall 2009.

THE RED RIVER OF THE NORTH IS AN INTERNATIONAL WATERSHED.

### Authority

The study is authorized by a resolution of the Senate Committee on Public Works, Sept. 30, 1974.

### Fiscal

Total study cost is estimated to be $6.6 million. Costs are to be shared 50-50 between the federal government and non-federal sponsors.

Fiscal year 2008 appropriation $2,600,000.

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## U.S. Army Corps of Engineer's Red River Basin Feasibility Study

### Project Description

The Red River Basin is located in North Dakota, South Dakota, Minnesota and Manitoba. The project area consists of the entire United States portion of the basin an area of approximately 39,400 square miles. The basin includes all or portions of 45 counties and includes the metropolitan areas of Fargo-Moorhead and Grand Forks-East Grand Forks. The Red River flows north and is approximately 550 miles long. The US portion of the river is approximately 395 miles and the remaining 155 miles is in Canada. The watershed includes natural resources of significant value including tillable lands, lakes, wetlands, rivers, forests, and native prairies. The Red River basin includes 19 major watersheds with numerous streams and lakes. The sub-watersheds contain a variety of land use, however the area is mostly rural with specific areas experiencing rapid development.

The Basin Wide Feasibility Study is divided into three phases. Phase 1 is Digital Elevation Data Collection, Phase 2 is Red River Basin Modeling effort, and Phase 3 is Decision Support System (DSS). The scope of work for Phase 3 focuses on work in all 3 Phases of the feasibility study. This work will review existing reports and documentation for various agencies, incorporate work that has already been and is anticipated to be completed as part of the study including but not limited to Mike-11, HEC-RAS, LIDAR, and DSS components.

The primary purpose of this scope of work will be

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## Watershed District Developments

### MIDDLE SNAKE TAMARAC RIVERS WD

The Middle Snake Tamarac Rivers WD reported on the Agassiz Valley Water Resource Management Project. Construction is completed and the impoundment will be operational next spring (2010).

The Board of Managers established the Brandt-Angus Flood Control Project this summer after holding a hearing on May 18, 2009. An agreement has been reached with the principle landowner (640 acres of 800 total acres). The District is awaiting the authorization of a resolution to approve a funding advance from the RRWMB in order to proceed with land acquisition.

A meeting regarding the Comprehensive Watershed Management Plan Update is scheduled for December. Houston Engineering, Inc. is completing the hydraulic model this winter along with the draft plan. The date of completion for the plan update is scheduled for June 2010.

## EVENTS COMING UP

A meeting of the Red River Joint Water Resource Board and a sub-committee (John Finney, Dan Wilkens, Ron Osowski, Ron Harnack and Dan Thul) of the RRWMB has been scheduled for Monday, January 18, 2010 at 7:00 p.m. in the Alto's Garden Café, Canad Inn, Grand Forks, ND.

The next meeting of the RRWMB will be on January 19, 2010 from 9:30 a.m. to 12:30 p.m. in the Alto's Garden Café of the Canad Inn Destination Center (Attached to the ALERUS CENTER), 1000 South 42nd Street, Grand Forks, ND.

to develop, coordinate, and document basin wide goals pertaining to runoff for each of the sub-watersheds in the Red River Basin. This will require extensive coordination with the Corps of Engineers, local sponsors, Red River Basin Commission (RRBC), International Joint Commission, and the public. The information developed will assist in development of the DSS which will be completed either by the Corps of Engineers or under a separate contract. It is anticipated that a close working relationship will be necessary to ensure that the goals are obtainable within the basin.

The DSS will be incorporated with the existing Red River Basin Decision Information Network, www.rrbdin.org. This system will allow interested parties to work towards one common goal for the watershed focusing on the cumulative impacts that actions in the basin may have. This support system would be a collaborative effort and would be used as the basis for decision making in the future along with collaboratively developing a system to streamline the Corps regulatory permitting process for non-federal projects developed as a part of the DSS and the implementation of potential Federal projects.

The Red River Basin Decision Information Network (RRBDIN) was developed following the 1997 flood after numerous discussions regarding the need for better information and data, different types of data especially geospatial (GIS) data and improved tools for flood fighting. The International Joint Commission (IJC) recognized the need for easily accessible and seamless data useful to flood fighting and water management and began development of the Red River Basin Disaster Information System (RRBDIN). The IJC, cooperating with the Global Disaster Information Network, envisioned the RRBDIN as an internet-based decision-making support tool for flood related emergency management within the Red River Basin. The intent was to make data available to those responsible for solving these flooding problems, fostering international cooperation and strengthening inter-organizational ties.

The RRBDIN is currently maintained and operated by the International Water Institute.

## RRWMB Meeting Highlights

*At its regularly scheduled December meeting, the RRWMB:*

- *Received a report from Ron Harnack, Project Coordinator.*
- *Received an update from Lance Yohe, Executive Director, Red River Basin Commission (RRBC).*
- *Participated in a Drainage Systems Management, Education and Stakeholder Feedback Project with Ann Lewandowski, UMN Water Resources Center and Mark Dittrich, Minnesota Department of Agriculture.*
- *Received a report from Naomi Erickson, Administrator.*
- *Rescheduled the meeting of a sub-committee of the board with a contingency of the North Dakota Red River Joint Water Resource Board to coincide with the January 2010 board meeting.*
- *Received a report from Dan Thul, Red River Coordinator.*
- *Authorized the resolution regarding a funding advance for the Brandt-Angus Flood Control Project of the Middle Snake Tamarac Rivers WD.*
- *Approved the Step II submittal of the Redpath Project of the Bois de Sioux WD.*

*Your comments and contributions are always welcome. If you are receiving this newsletter and are not currently a member of a governing unit in the Red River Basin, please notify us and provide the name of the appropriate person to be added to our mailing list. News & Views, c/o RRWMB, P.O. Box 763, Detroit Lakes, MN 56502-0763, Phone: (218) 844-6166; Fax: (218) 844-6167.*

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