

STATUS REPORT

These status report sheets describe projects and programs that are being implemented in the Red River Basin that assist in carrying out the mission of the Red River Basin Commission.

Project/Program: **MAINSTEM HYDROLOGY STUDY**

Project Sponsor: Red River Basin Commission
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Project Summary:

The Red River Basin Commission (RRBC), through its Flood Damage Reduction (FDR) and Hydrology Technical Advisory Committees (TACs) developed a Request for Proposals to develop a main-stem unsteady flow model from Lake Traverse to Emerson, MB. A contract was awarded to Water Management Consultants to develop the model using MIKE 11 and HEC RAS as model platforms. The Red River Basin Commission plans to use this model to develop flow management goals for sub-watersheds in the Red River Basin.

The modeling goal is to provide information for use in educating and informing the RRBC, agencies, and the public. In addition, the study will provide a uniform base of information to be utilized by agencies and organizations in their decision-making processes. The Board is interested in this information for use in educational and planning efforts. From a planning perspective, the Board would like to analyze the impacts of existing and proposed projects and programs and determine management alternatives needed to accomplish specific flow and consequent flood damage reduction.

The study will provide an understanding of the flood volumes, flows, and the contributions and timing of tributary and main stem flows at downstream points, including: Wahpeton, ND/Breckenridge, MN; Hickson, ND; Fargo, ND/Moorhead MN; Halstad, MN; Grand Forks, ND/East Grand Forks, MN; Oslo, MN; Drayton, ND; Pembina, ND; Emerson, MB; Morris, MB; the Winnipeg Floodway Inlet (at St. Norbert, MB).



The \$138K effort is being funded by numerous Red River Basin partners including the **Red River Basin Institute, the Red River Watershed Management Board, the ND Joint Water Resources Board and the ND State Water Commission.** The modeling effort will enhance Manitoba's ability to accurately forecast future flood events and will prove invaluable to decision-makers and residents of the basin. The effort is expected to be completed with a series of technology transfer meetings early in 2004.

Submitted to RRBC: May, 2001

Plan Management Action: None

RRBC Action: December, 2002

Follow-up Action:

December 20, 2002 - Contract was awarded to Water Management Consultants to complete the modeling.

July 9, 2003 - Hydraulic & Hydrology meeting was held to review progress and solicit input on the project.



Red River Basin Commission

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