

URGWOM News

A newsletter devoted to informing the public of the status of the Upper Rio Grande Water Operations Model (URGWOM)

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What is URGWOM?

In 1996, six federal agencies - the Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, Bureau of Indian Affairs, the International Boundary and Water Commission (U.S. Section), and the U.S. Army Corps of Engineers - recognized the need for a unified water operations model for the Upper Rio Grande Basin and entered into a Memorandum of Understanding (MOU) to develop such a tool to assist water managers. The intent of this cooperative effort is to develop a numerical computer model capable of simulating water storage and delivery operations in the Rio Grande from its headwaters in Colorado to Fort Quitman, Texas. The model will be used in flood control operations, water accounting and evaluating water operations alternatives. Additional entities signing the MOU in 1997 were the cities of Albuquerque and Santa Fe, Rio Grande Restoration, Sandia and Los Alamos National Laboratories. Many other entities, although not yet signatories, are involved in the effort through technical review and outreach support.

As a result of model scoping and coordination activities with other basin interests in early 1997, the cooperating federal agencies **Steering Committee** finalized a plan for development of an Upper Rio Grande Water Operations Model (URGWOM).

Plan for Development

This plan identified the computer software, **RiverWare**

RiverWare is a generic reservoir and river system modeling software tool that can be readily customized to fit specialized modeling needs. It has been in development since 1993 and is the result of a continuing collaborative effort by the Center for Advanced Decision Support for Water and Environmental Systems (CADWES) at the University of Colorado, the Bureau of Reclamation and the Tennessee Valley Authority.

(formerly called PRSYM in the plan) and associated hardware to be used in developing the water operations model and outlined the tasks and schedule required for the model's development. The plan also selected a segment of the system, the Rio Chama, as a test case for model development to demonstrate the feasibility and practicality of using Riverware before committing to a full basin modeling effort.

The following steering committee members manage the model development process :

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Where are we Now?

The Rio Chama test reach contains reservoirs with full water budget computations, different water ownerships, release criteria and other reservoir attributes, as well as diversions, return flows, tributary inflows, stream gages and complex operational criteria. Therefore, this segment should be a good test of Riverware.

Throughout 1997, the **Technical Team** has been hard at work developing the conceptual model of the test case reach, beginning with the physical system. The conceptual model is a document that describes, both graphically and in text, the existing physical operational and water accounting systems. Part I, the physical model, is currently undergoing public technical review through the efforts of the **Technical Review Committee**.

Recently, the **Technical Team** began construction of parts of the actual test case model using the conceptual model as a guide. As a clear understanding of the test reach evolves, model construction continues one step at a time.

Members of the Technical Team are working on URGWOM river and reservoir simulation and researching the requirements for developing a long-term database for URGWOM. The next issue of URGWOM News will feature these and other hard working folks.

What's Next?

The Rio Chama test case models will be thoroughly reviewed and evaluated before extensive development of models to simulate water operations in the entire Upper Rio Grande Basin. If results of the test case are acceptable, modeling of the full basin will follow the same process as the one for the test case.

The Technical Review Committee are representatives and observers from agencies or entities that have an interest in the model's development. Participation is open and voluntary and provides all parties the opportunity to review each development phase of the model.

Upcoming Events

URGWOM meetings are open to all interested parties. Please call any Steering Committee Member or 505-342-3348 to verify meeting dates, time or place. Unless otherwise indicated, all meetings are scheduled to take place at the U.S. Army Corps of Engineers Headquarters Building, 4101 Jefferson Plaza NE, Room 119, Albuquerque, NM 87109.

December 18, 1997, Steering Committee Meeting

(Usually 3rd Thursday of each month)

9:30 a.m. to Noon

January 22, 1998, Steering Committee Meeting

(tentative date)

9:30 a.m. to Noon

Also coming soon: URGWOM web site - www.swa.usace.army.mil/urgwom.