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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In This Issue

URGWOM, short for the Upper Rio Grande Water Operations Model, is a computer model capable of simulating water storage and delivery operations on the Rio Grande from Colorado to Texas. The primary purpose of URGWOM is to facilitate more efficient and effective water management in the Upper Rio Grande Basin. In the March 1999 newsletter we discussed progress on model design and development for the Rio Grande. We have several progress updates in this issue, including information on the first draft of URGWOM that is now being tested.

First Draft of URGWOM Being Tested by Water Managers

The first draft of a working URGWOM was submitted to water managers for testing at the end of January 2000. This basic "backbone" version models Rio Grande and San Juan-Chama flows and storages from the Colorado-New Mexico border to Elephant Butte Reservoir. Flood control modeling from Elephant Butte to American Dam in El Paso is expected to be completed this spring.

This first version of URGWOM is being tested against current water operations and accounting methods. At this stage of its development, it is not intended to replace other models or decision-making tools currently in use. The primary functions of URGWOM involve daily water accounting and forecasting of river flow. Output from the URGWOM model can provide more up-to-date information to water managers to help them make timely operational decisions.

URGWOM is composed of four distinct models (**see graphic on page 2**).

- Accounting Model—a complete physical model designed to solve for reservoir inflows, given outflows, water elevations, weather, and other reservoir data. It deals strictly with the past, calculating all flows and storages through midnight of the previous day.
- Water Operations Model—the forecasting version of the Accounting Model, uses updated historic data from the Accounting Model, along with other short-term forecast data, to predict flows and storages for the future. It uses rules, as needed, to determine outflows.
- Planning Model—designed to carry out long-term forecast runs, using less detailed data and rules.
- Forecasting Model—takes monthly spring runoff forecasts and uses historic inflow hydrographs to create daily forecast hydrographs for each of the inflow points in the Water Operations Model. It does not involve much of the physical model, but feeds the Water Operations Model with forecast data.

Staff from the Corps of Engineers, the Bureau of Reclamation, and the U.S. Geological Survey comprise the URGWOM Technical Team, which has primary responsibility for developing the model. They have been assisted by staff from the U.S. Fish and Wildlife Service, International Boundary and Water Commission (IBWC), Bureau of Indian Affairs, outside contractors, and many other state, federal, tribal, and local organizations in developing different aspects of the model for specific river reaches, or stretches of river between control points. These include gain and loss computations, variable timelag routing, sets of rules to describe water operations, and evaluation and compilation of historic data.

Final Documentation To Be Completed

Final documentation of the draft URGWOM model is expected to be completed by the end of September 2000. The Technical Team has been updating documentation as model development has progressed. The documentation describes the data, methods, and assumptions that are used in the URGWOM model and will be available to anyone who is interested.

The following Steering Committee members manage the model development process:

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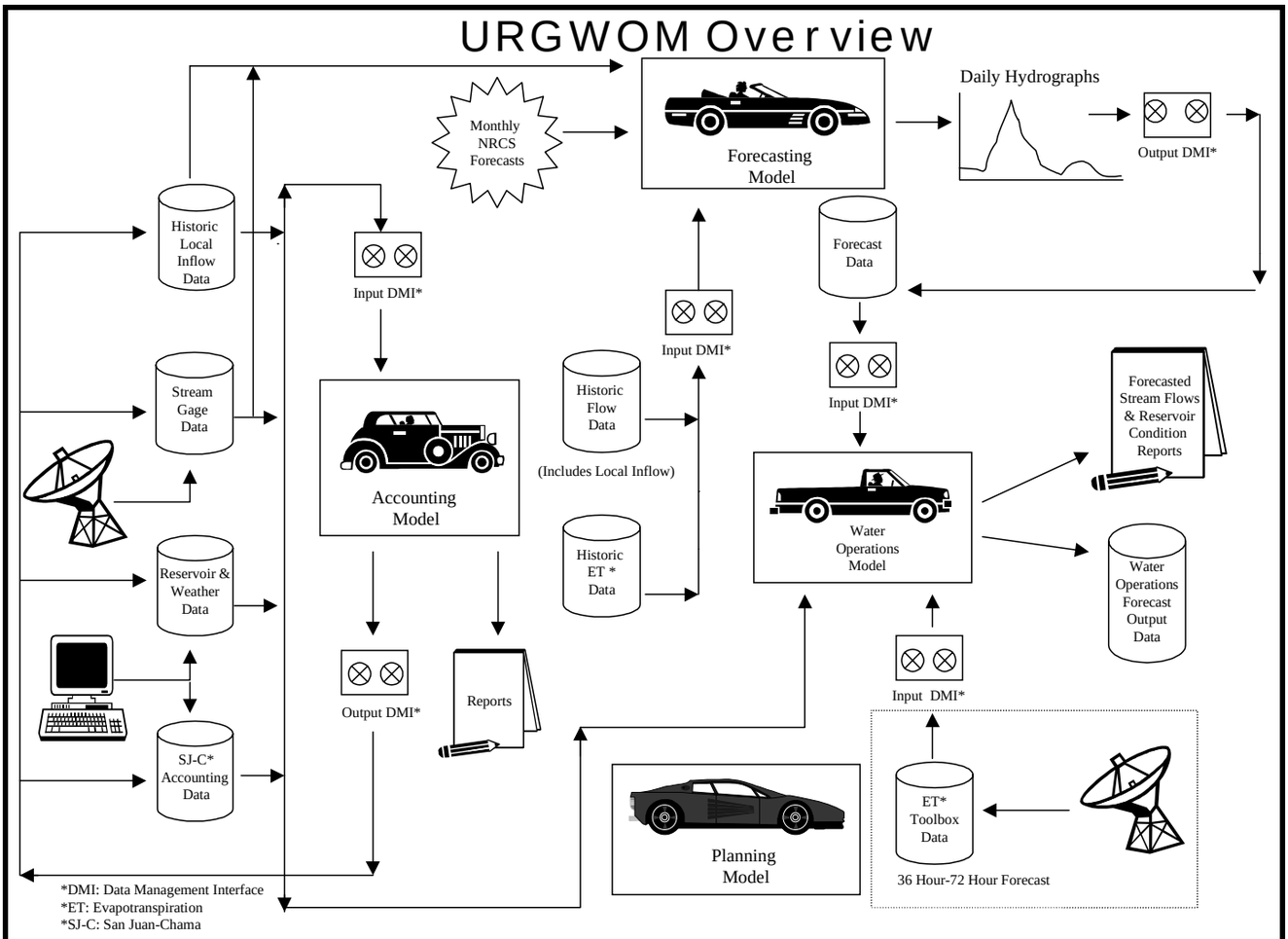
Informational Meeting for the Public

An informational meeting on URGWOM will be held to update the public on the status of model development and model documentation. The meeting will be held on March 22, 2000, second floor conference room of the IBWC, 4171 North Mesa Street, El Paso, Texas, starting at 1:30 p.m.



Technical Review Committee to Meet

The next meeting of the URGWOM Technical Review Committee on Tuesday, February 22, 2000, will focus on the calibration and documentation of the physical model for the middle Rio Grande reach, from Lobatos, near the Colorado-New Mexico border, to Elephant Butte Reservoir. Updates on the overall river model will also be presented.

The Technical Review Committee is composed of people with a strong technical background or an avid interest in the Rio Grande. The committee members and interested observers assist the URGWOM Technical Team by reviewing its work and by making recommendations to aid the modeling effort. Their comments will be evaluated and incorporated into the final documentation.

Draft model documentation that will be reviewed at this meeting is available from the URGWOM web site, *http://www.spa.usace.army.mil/urgwom/*.

Upper Rio Grande Basin Water Operations Review Begins

Watch for information on the Upper Rio Grande Basin Water Operations Review and Environmental Impact Statement (EIS) that will be gearing up this year. The Notice of Intent to begin this EIS will be published in February 2000. The Review and EIS will be managed under a Memorandum of Agreement among the three joint lead agencies: the Corps of Engineers, the Bureau of Reclamation, and the New Mexico Interstate Stream Commission. This project will use the URGWOM model as a tool to evaluate the impacts of changing water operations under different scenarios within the constraints of the joint lead agencies' existing water operations authorities. Information will be available through a newsletter, the news media, a web site, and public meetings beginning this summer.

URGWOM Web Site: http://www.spa.usace.army.mil/urgwom

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