

Notes from URGWOM Steering Committee Meeting; August 9, 2001; 10:00 AM; Corps of Engineers Conference Room, Albuquerque

In attendance:

Steven Bowser, USBR

Ellen Dietrich, SAIC/Corps

Rhea Graham, NMISC

Tim J. Ward, UNM

Conrad Keyes, Jr., EWRI/Corps

Art Martinez, BIA

Bill Miller, WJM Engineering

Willem Schreüder, Principia
Mathematica/RCAA

Nabil Shafike, NMISC

Gail Stockton, Corps

Jack Veenhuis, USGS

Dave Wilkins, USGS/ URGWOM Technical
Team

Mark Yuska, USBR/URGWOM Technical
Team

- ❖ Gail Stockton led off with introductions and told the group that the Technical Team has been working on getting data organized and developing the metadata.
- ❖ Mark Yuska followed with a slide presentation showing the current metadata files and the type of information that has been recorded for each set. The metadata is organized into spreadsheets, grouped by data type, that list all data used by URGWOM. Eventually, the intent is to have these files in a relational database. The metadata reflects the current state of the data. The discussion and questions about the metadata are summarized below.
 - Metadata files reviewed by Mark include reservoir data, surface ice cover, wastewater, San Juan-Chama contractor accounting, stream gage data, river leakage, ET toolbox data, diversions, and agricultural evapotranspiration.
 - Information in the metadata files includes the source, notes on data quality, and comments on how the data are used in URGWOM.
 - These **files will be sent to the originating agencies** for their review and approval before they are made available to the public. They will **accompany a letter** requesting approval to post the data on the URGWOM web site and inviting them to the October 11 URGWOM Steering Committee meeting when these data will be presented. Suggestions on the format and method of access will be entertained. The letter (a draft was distributed for comments) to the agencies will be sent by the Corps within the next few weeks.
- ❖ Gail noted that she will **send a letter and a copy of the Technical Review Committee notes to those who attended the meeting. Those committee members who did not attend will receive an e-mail** message indicating that they can download the notes from the web site.
- ❖ Mark Yuska reviewed Technical Team activities and the status of URGWOM. His handout is attached to the end of these notes. The discussion is summarized below.
 - Mark was asked if they are noticing seasonal effects from calibrating the model using irrigation and non-irrigation season flows. Mark responded that, while there can be wide swings in flows on a daily basis, there is less overall variation between modeled and historic flows using different loss equations for each season, however, the benefits of seasonal calibration are significant.

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- The definitions of irrigation and non-irrigation seasons vary depending on the location in the system, but generally, March through October is used to define the irrigation season.
 - The URGWOM Technical Team could consider doing monthly flow calibrations instead of seasonal adjustments, but Mark thought that there would be less overall benefit to the model than the significant change resulting from the use of two seasons.
 - Changes to URGWOM for the Planning Model include using 25 years of historical data, lumping smaller contractors together under a generic SJ-C account, updating the rules in the Water Operations Model, and calculating river leakage on the fly.
 - ❖ Conrad Keyes distributed a draft scope of work for development of a database management program for the Rio Grande and URGWOM data. He used the 36-page draft database management document distributed at the last Steering Committee meeting and condensed it to a 6-page SOW. **The document needs to be updated with current information.**
 - Conrad recommended encouraging the 6 agencies currently involved with URGWOM to buy into this effort and promote its use to other interested agencies.
 - Steve Bowser estimated that it would take \$150,000 to get the database effort started.
 - The funding should also take into account long-term operation and maintenance.
 - ❖ Willem Schreüder, representing the Rio Chama Acequias Association (RCAA), presented his client's concerns about the use of URGWOM as the basis for studies and water operations actions that they oppose. He distributed a handout containing copies of sections of recent environmental documents stating that they used URGWOM to evaluate impacts.
 - Willem stated that if, as the Steering Committee and the Technical Team have expressed, URGWOM is not yet ready for use, then it should not be utilized by agency staff for decision-making. If there are imperfections in earlier versions of URGWOM, then the RCAA wants to know how valid the decisions were that were based on them. If changes have been made in the model, it is more difficult to accept these prior decisions.
 - The RCAA has three requests for the Steering Committee:
 - Authorize the immediate release to the RCAA of the URGWOM versions used to support the decision documents.
 - If simulations were completed other than those done by the URGWOM Technical Team, the RCAA wants to know what restrictions were placed on its use by the Steering Committee.
 - Instead of retaining total control of the program, the Technical Team should use open source programming and get help from users of preliminary versions (beta testing).
 - Several Steering Committee members responded that although the environmental documents state that they used URGWOM for analysis, this was incorrect. They may have used RiverWare, but the group of models that comprise URGWOM have not been made available for these analyses.
 - RCAA should request the specific simulations and RiverWare versions that were used to support the decisions from the agencies that produced the documents.
 - The Steering Committee does not have control over the release of the other simulations done in the Rio Grande basin using RiverWare, only over the release of URGWOM.

- Gail suggested that the RCAA consider becoming a cooperating agency for URGWOM, through signing a Memorandum of Agreement, to help provide resources and contribute to model development.
- Mark Yuska told Willem that he or another representative of RCAA is welcome to look at the URGWOM models independently at the Technical Team office. The official policy is that no public release will be made until further in-house testing has been completed. The data used in URGWOM will be available to the public on the web site next year.



❖ **The next URGWOM Steering Committee meeting will be held on September 13 at 10:00 a.m. at the Corps in Albuquerque.**

August 8, 2001—STATUS OF URGWOM TECH TEAM ACTIVITIES

People:

- The team is back from vacations
- Danielle, our stay-in-school data assistant left July 27th for a permanent job
- USBR is trying to hire another hydraulic engineer to work on the team

Activities:

- 1-season calibration: 1145 cfs avg daily modeled San Marcial flow versus 1331 cfs historical: 14% error
- 2-season calibration 1294 cfs versus 1331 cfs: 3% error (1998-1999 validation period)
- Began creating DMIs and models for the purpose of validating 1997-99 and 1985-94 accounting data
- Revised monthly leakage regression equations for each of the six reaches consider diversions at Cochiti Dam and upstream gages on the low flow conveyance channel. Low flow conveyance channel data are not significant in the San Marcial to Elephant Butte reach for 11 of 12 months.
- RiverWare can now do log equations in an expression slot (used for river leakage)
- Added and tested a policy group with rules for monthly regression equations for the six reaches
- Still debugging/enhancing water operations model ruleset. 1995 runs look pretty good. Working on 1996 run. Modification to ruleset required to recognize and payback owed SJ-C water
- Implemented San Juan losses below Cochiti after bug fix.
- Implemented the Hypothetical Simulation function into ruleset to solve for constraint releases (minimum flows and channel capacity flows) below Cochiti. It passed the test for channel capacity constraint, but slows down performance of model. Asking CADSWES to improve performance

- Requesting river leakage and bosque ET methods in RiverWare to alleviate need for rules to do it
- Organizing data and models, and revising metadata files. This requires changes to dmi's (tedious and slow)
- Commented on tech review and other documents, along with Rio Chama Acequia Association questions
- Setting up the data and physical model in developing the Planning Model
- Prepared a response to comments from Tech Review
- Want to add to website a discussion/listing of upcoming changes to models
- Documenting the Water Operations Model Ruleset
- MRGCD 2000 irrigated acreage and gage data not available until checked by consultant

Meetings:

- Brad Vickers will be in Albuquerque August 20-23 to review latest WaterOps model and ruleset, planning model development and effects on ruleset, Platoro model/rules, and overall rules documentation.
- The tech team met to organize quality checkup and cleanup of database
- The tech team met to lay out tasks towards building the planning model
- Mark Yuska and Steve Bowser will attend the annual Water Management Conference in Boise next week. There will also be a HEC-CWMS demonstration, and discussion of database alternatives

Issues:

- USBR and the Engineer Advisors postponed the meeting for (among other things) conditions for acceptance of the Accounting Model
- USBR has ordered a new faster SUN computer for URGWOM for approximately \$16K
- Need to keep after funding for FY2002
- We look forward to receiving the URGWOPS operational alternatives to tailor the Planning Model