

Notes from URGWOM Steering Committee Meeting; May 13, 2004; 10:00 AM; Corps of Engineers Conference Room, Albuquerque

In Attendance:

Steve Bowser, USBR	Jesse Roach, Sandia National Labs
Tim Darden, NMDA	D. Michael Roark, USGS
Ellen Dietrich, SAIC/Corps	Nabil Shafike, NMISC
Ed Fierro, EPWU	Zhuping Sheng, TAMU
William J. Miller, WJM Engineering, Inc./Corps	Gail Stockton, Corps
	Valda Terauds, USBR

- ❖ Steve Bowser chaired the meeting and, after self-introductions, turned the meeting over to Mike Roark to discuss plans for URGWOM testing.
 - The model testing subcommittee met to develop plans for two phases of testing. The subcommittee is composed of Marc Sidlow, Dave Wilkins, Tim Ward, Bill Miller, Gail Stockton, and Mike Roark.
 - Letters were sent to the MOU signatories and cooperating agencies on the day of this meeting to invite participation in URGWOM testing. The letter said that **the scenarios to be tested and the testing plan will be discussed in detail at the June 10 URGWOM Steering Committee meeting (later postponed to Oct. 14)**. Other interested people received copies of this letter to inform them of the proposed testing plan.
 - Phase I testing
 - Testing would be conducted by representatives of the agencies who signed the MOU for URGWOM and possibly one external tester, depending on the response to the letters of invitation. The purpose of this phase is to allow reviewers to look at the model results and focus on points of interest, such as changes in river flows, storage in Abiquiu and other reservoirs, or evaporation losses.
 - Testing would consist of running scenarios with (a) target flows at the Central Street gage, (b) flows with Abiquiu conservation storage, and (c) a combination of both.
 - The model would be run only using the RiverWare viewer. No changes to inputs would be allowed during this phase, but the user can look into how the model functions and view the details of each scenario.
 - Phase II testing
 - This phase of testing will provide an opportunity for representatives of the cooperating agencies to participate.
 - Those testers with the full RiverWare license will be able to modify the scenarios as they wish.
 - A training session for the Phase II testers, but open to anyone interested in attending, will be given by the URGWOM Technical Team on October 14. A tutorial will be developed to guide Phase II model testing (Following this meeting Phase II was delayed; Phase I to be described on Oct. 14).
 - **Question:** Can other agencies participate in the Phase II testing if they purchase RiverWare?
 - **Answer:** The total amount of participation will depend on the response to the letters sent out.

- **Question:** How will you control changes to the scenarios, especially rule changes, during Phase II testing?
 - **Answer:** The Technical Team needs to figure out in advance how to lock out certain parts of the model. It may require some discussions with CADSWES.
- **Question:** Is the purpose of testing to obtain approval from the MOU signatories?
 - **Answer:** Yes, as well as to determine whether URGWOM is working as it should, and to identify problems or needs.

❖ Mike Roark then reviewed the Technical Team activities since the last Steering Committee meeting in March. He distributed a list of activities that are attached to the end of these notes. Additional information not addressed in Mike's list, questions, and discussions are briefly summarized below.

- Mike requested some guidance from the Steering Committee to address a potential problem with posting URGWOM on the website. The Technical Team would like to know if the rules should be posted with the model on the website before testing has been completed. Putting URGWOM on the website without the rules would allow people to view all objects and data without enabling them to change the rules and run it before it is ready. There will be disclaimers on the website regarding the use of the model.
 - Gail Stockton pointed out that the rules are not fully documented at this time. The lack of rules documentation would generate questions to the Technical Team, which would be time-consuming. She recommended not including the rules until the documentation is completed and the Phase I testing is done.
 - Included on the website will be a link and instructions for downloading the RiverWare viewer, with a description of how to use the model output. The viewer allows the model output to be exported to Microsoft Excel so it can be used in other programs or analysis.
 - The Water Operations model to be posted is based on the April and May NRCS forecasts and includes the actual data used in this year's Annual Operating Plan runs.
 - ➔ **The final decision in response to Mike's question was that the URGWOM rules will not be made available with the model unless the Technical Team can find a way to lock them so they cannot be modified until URGWOM is fully released.**
- The new version of MMS (Modular Modeling System) used Digital Elevation Models at a finer resolution (30 meters) than previously (100 meters). MMS links snowmelt and rainfall runoff models and will be used as part of the URGWOM forecast.
 - Desert Research Institute is calibrating the snowmelt/runoff part of MMS, using forecast points at gage locations within each watershed.
 - NRCS, who generates the forecast data now used by URGWOM, has expressed an interest in using MMS.
- In working on the groundwater/surface water model for the San Acacia reach, Nabil Shafike noticed that URGWOM creates losses when the Low Flow Conveyance Channel is operating. Nabil is using the ISC's groundwater/surface water model to establish relationships between flows at San Marcial and the Low Flow Conveyance Channel. Mike has written new rules and tables to use these relationships to adjust URGWOM flows in this reach.
 - **Question:** Are you considering coupling the groundwater/surface water model with URGWOM?
 - **Answer:** Yes, the tables are a short-term fix. The Technical Team is waiting for CADSWES to develop a way to link the two models.

- Bill Miller reported on a meeting between the Technical Team and the Water Acquisition and Management subcommittee of the ESA Workgroup to consider uses of URGWOM to evaluate changes in water operations in ways not currently authorized. The subcommittee proposed some rules changes that would help them review possible operations changes that would assist water managers.
- ❖ Steve Bowser reported on the status of URGWOM documentation.
 - Brad Vickers is making completion of the rules documentation a high priority.
 - The current version of the documentation will be updated as changes are made.
 - CADSWES has requested that their draft rules tree be reviewed and comments submitted as soon as possible. **It was agreed that the Technical Team would review it and discuss comments at the next Steering Committee meeting.**
- ❖ Ed Fierro reported on the Paso del Norte Watershed Council Coordinated Database project.
 - In the completed Phase I, they collected historic flow data for gages between Elephant Butte Dam and Fort Quitman, Texas. The data are available on CD from Gail Stockton. Data include some back to the early 1900s, but most are flow data, including diversions, from 1975 to present. It will eventually be used to model the lower reaches.
 - Phase II involves developing a conceptual river model between Elephant Butte and El Paso.
 - The return flows and groundwater/surface water interactions are more complex than north of Elephant Butte.
 - They intend to develop a GIS portal through the Paso del Norte Watershed Council website to allow real-time access to flow data, updated every 15 minutes.
 - The conceptual model is based on RiverWare. Dave Wilkins is working with the Watershed Council to assemble and describe URGWOM objects for eventual use in RiverWare so it links with the model above Elephant Butte.
 - The first step is to more fully describe the physical system and collect historic data in preparation for modeling.
 - Part of Phase II will include evaluating other models in use and under development. The Texas/New Mexico Water Commission is interested in these reaches.
- ❖ The groundwater and surface water monitoring data in the Albuquerque area is available on the website at <http://nm.water.usgs.gov/GroundWater/gwhome.html>.
- ❖ Steve Bowser reported that the development of HDB is in Phase 3, developing a method to eliminate the use of the current water accounting spreadsheet. Discussions are underway with CADSWES to connect HDB with URGWOM so there is a better connection with DSS that the Corps is currently using for data input/output.
- ❖ **The next meeting of the URGWOM Steering Committee will be held in the Corps conference room on June 10.**

Technical Team Activities—Mike Roark

Rule Improvements:

- Brad and Mark Sidlow working on revamping the Target flows for Central, Isleta, San Acacia, and San Marcial. Target flows rules have been redone for Central and Isleta but for the 4 other two sites model methods will have to be upgraded by CADSWES.
- Brad and Mark are putting together the documentation for the rule set.
- Brad and Mark are correcting some rules that control the release of storage of P&P stored water when MRGCD has run out of water.
- Brad and Mark corrected release rules for sediment pool water in Jemez Reservoir. Sediment pool water was not being released.

Water Ops Work:

- Preparing a web page to distribute the results of the Water Ops Model runs for April and May. Some discussion about if the rules should be put on the web page so that one can run the model until it is tested.

Development of the MMS Model for snowmelt-runoff:

- Mike and Jack Veenhuis worked with the USGS Denver development team to make sure that the forecast point watershed boundaries were correct. The last of these were tested and information passed on to the development team.

Model improvement of the Middle Valley Reaches:

- Nabil pointed out that the depletions in the San Acacia Reach of the model are extremely inaccurate and that it must be a high priority for the Tech Team to improve this reach.
- Nabil is now running ISC ground-water model to develop tables of gain and flow downstream in the San Acacia to San Marcial Reach. Mike with help from Brad is developing the necessary changes to the model to be able to use the tables.

Other Activities:

- Tech. Team met with member of the WAM Committee to discuss how URGWOM could be used in their study of the water supply in the Rio Grande.