

**Notes from URGWOM Steering Committee Meeting; June 8, 2000;
10:00 AM; Bureau of Reclamation Rio Grande Conference Room;
Albuquerque**

In attendance:

Ellen Dietrich, SAIC	Gail Stockton, Corps
Rhea Graham, NMISC	Doug Strech, MRGCD
Walter Hines, CH ₂ M Hill	Leann Towne, Bureau of Reclamation
Conrad Keyes, Jr., EWRI of ASCE	Tim J. Ward, UNM
Bill Miller, WJM Engineering, Inc.	Dave Wilkins, USGS, URGWOM Technical Team

- ❖ Dave Wilkins chaired the meeting and updated the group on Technical Team activities and URGWOM progress. His summary is attached to the end of these notes.
 - The rules, when completed, will make development of the Annual Operating Plan (AOP) quicker and easier. The AOP is usually updated at least three times a year, but ideally would be updated monthly or weekly, if URGWOM can be used to help with daily operations.
 - Conrad Keyes asked if there are any plans for the Bureau of Reclamation to put the AOP on a web site. Leann Towne responded that there are no plans at this time, but using the web would help to make updates to the AOP available to the public quickly.
 - URGWOM has helped modelers and managers to identify opportunities for data collection that would improve the model and their understanding of the system. Some of these data needs could be addressed outside of URGWOM through proposals for research.
 - Doug Strech asked why San Juan-Chama water is calculated separately from (carried on top of) Rio Grande water for determining losses. Rhea replied that this is based on policy and the enabling legislation for the San Juan-Chama Project.
 - The San Juan-Chama losses are calculated by determining the difference between losses of Rio Grande water without San Juan-Chama water and the losses of only San Juan-Chama water.
 - The loss rates are derived from data from the last twenty years, since the construction of Abiquiu Dam, but the research to determine the method is based on the earlier physical stream system. URGWOM could be used to help to reevaluate the loss rates.
 - Forecast model enhancements
 - The model now uses similar runoff volume forecasts to select similar years' hydrographs that are matched with current forecast volumes.
 - An improvement on this would use watershed modeling, such as MMS, using actual snowpack and watershed characteristics to more accurately predict runoff volumes and timing.

- Another future enhancement discussed would involve using probabilities to determine similar hydrographs.
- The forecast model has historical data like evapotranspiration, diversions, and leakage, and the historical hydrographs that it matches up.
- Hydrographs can also be selected manually.
- Bill Miller discussed the quality control plan, which is close to final. The plan discusses the Steering Committee, the Technical Team, and the Technical Review Committee, and the procedures and schedule for review of documentation. When it is final, it will be signed by the agencies cooperating in URGWOM and the Steering Committee.
- Documentation for the entire mainstem, including the reaches below Elephant Butte, will soon be complete.
- Bill discussed his evaluation of local inflows above Cochiti. Local inflow represents gage error and the inflow into each reach. He has been correlating local inflows and other unmeasured inflows in each reach, comparing actual flows with those predicted by URGWOM.
 - This provides an opportunity to check the model.
 - There is a reasonably good correlation in the Chama and with streamflow in the mainstem or in tributaries, by aggregating daily data into monthly data, except in the Otowi to Cochiti reach.
 - Gail Stockton pointed out that the losses from Cochiti Dam will soon be measured, to help in the understanding of that reach.
 - Tim Ward recommended that Bill use seasonal flows instead of monthly flows to improve the correlation.
 - Tim asked if there are differences between historical data and the modeled data. Bill responded that there are significant differences in some reaches, especially from La Madera to Chamita, but they do not yet know why. Bill plans to check this by running the test case with 1998-1999 data.
 - Tim asked if the major differences between measured and modeled flows could be perceived as a major problem with URGWOM. Bill felt that the total local inflow correlates with flows of the tributaries, and that this process is helping to identify problems with URGWOM while it is still in the testing phase.
 - Dave Wilkins suggested that Bill identify the reaches with problems so the Technical Team can address them or determine where more data are needed.
- Dave is having difficulty in obtaining the groundwater data below Caballo. If the Technical Team does not get these data, model calculations on this 108 miles of the river will be gross. Thinking on how to model this reach may need to be revised. Other discussion on this:
 - The channel capacity in some reaches is 3500 cfs or less, not the 11,000-cfs capacity listed at American Dam.
 - The Upper Rio Grande Basin Water Operations Review will be considering only flood control below Caballo, using URGWOM for this purpose.

- Doug Strech reported that MRGCD does have GIS coverage for 1995 crop acreage that could be used to correlate MRGCD reaches and URGWOM reach locations and acreage. They will also have crop acreage for 2000 from Otowi downstream in a GIS coverage.
- The meeting on the MMS model is intended to help USGS decide where to begin watershed modeling. The Technical Team would like to have Steering Committee input on this, so contact Mark Yuska or other Technical Team members if you have suggestions.
- Before considering the fiscal year 2001 budget, Gail Stockton needs to get a task list and schedule for developing the planning model from the Technical Team. The planning model will be funded from the Water Operations Review. **The Technical Team will try to have tasks and a schedule to review next month.**



- ❖ There has been no progress on database development, but the group discussed the draft letter that is to be sent to cooperating agencies and others with an interest in using the data.
 - Gail distributed a draft of the letter that incorporated the changes recommended at the last Steering Committee meeting.
 - The letter is planned now to go out under Michael Gabaldon's signature, from the Bureau of Reclamation.
 - It is intended to offer the opportunity to develop a regional database or coordinated databases. It was recommended that a sentence be added to state that the new team will determine the scope of the database and its uses.
 - Conrad Keyes told the group that a similar effort is being coordinated by the Texas Clean Rivers Office at IBWC. They recently formed, and got 25 groups to participate. Daniel Borunda at IBWC is heading the team.
 - Roberta Ball stressed that someone should represent URGWOM on the database team.
 - Conrad recommended that NMED be included in the list of letter recipients because they need the data for the TMDL program.
 - Leann will send out the letter by the next Steering Committee meeting.



- ❖ **The next meeting** of the Steering Committee will be held on **August 10** at 10:00 a.m. at the **Corps of Engineers** conference room. **The group requested that a monthly update from the Technical Team be distributed by e-mail in July, instead of the July 13 meeting.**

STEERING COMMITTEE MEETING - June 8, 2000 - STATUS OF URGWOM TECH-TEAM
ACTIVITIES

People:

- Dennis Romero, USBR has worked on the Annual Operating Plan and Accounting here. He has been called back to the USBR office temporarily, but is expected back full-time within a week or two.
- Danielle Migneco, USGS Stay-In-School doing data entry, is on summer break, but will keep her hours the same, as she got another part-time job in the University lab.

Activities:

- The Annual Operating Plan update for May went better than in April. Don Gallegos and Dennis Romero are reworking a previous version to hone the process for future use. Jaci Gould of USBR Water Operations presented the results and briefed the attendees on the use of URGWOM to develop it, at Truth or Consequences and El Paso. Marc Sidlow and Roberta Ball assisted greatly, and Mark Yuska did some accounting repairs.
- We are working on a document to identify opportunities for improvement in middle valley gain/loss methods, in response to recent interest in reviewing and possibly revising accepted San Juan-Chama loss rates, Cochiti to EB.
- Marc Sidlow enhanced the forecast model with abilities to use multiple year hydrographs and for the accounting model to select a similar year hydrograph shape. Smoothed local inflows for 85-96 using a centered moving average and 3 to 15 days are now available.
- Marc assisted Dennis in checking accounting for 1995 and 1996. 1995 now matches daily programs with the exceptions of Jemez and Elephant Butte.
- Marc has identified and CADSWES is correcting the accounting bugs with Jemez and Elephant Butte.
- Brad Vickers is coming June 12 through 16 to present completed rules and review rules with the tech team.
- Bill Miller is finalizing a quality control plan for URGWOM.
- Bill is assisting in documenting reaches below Elephant Butte.
- Bill has been relating local inflows to river flows in reaches above Cochiti and has found some good correlations.
- Dave Wilkins has written the first draft of Elephant Butte flood control rules - we asked for some SOP clarification from USBR Elephant Butte and El Paso Field Divisions
- Dave Wilkins and Mark Yuska began deciphering the Caballo flood control rules logic with Chuck Braden, Rong Kuo, and Jim Robinson of IBWC and Wayne Treers of USBR in El Paso.
- Dave is attempting to gather drain water-surface elevation data to develop groundwater interaction below Caballo.
- Carole Thomas is working with Al Brower and Curt Hartzell of USBR-Denver on a method to combine 1992 LUTA coverages/ET estimates with many other years of MRGCD reported crop acreage to develop one consistent and contiguous set of crop acreages and consumptive uses.

- Carole is beginning middle valley gain/loss enhancements by improving the canal seepage method.
- Carole is reviewing Chuck Braden's lag and loss work below Caballo to Leasburg reach.
- Chuck Braden of IBWC will be Albuquerque June 23 to review and document the below Caballo reach.
- Danielle is continuing to input reservoir data prior to 1985.

Meetings:

- We will meet with Chris Gorbach and Ed Kandl June 26 to discuss enhancing the model below San Acacia with detailed loss components as done from Cochiti to San Acacia.
- The Data management/coordination meeting in El Paso is still postponed, until word from El Paso USBR.
- George Leavesley's (of Denver USGS) Modular Modeling System demo (surface water runoff hydrology modeling) scheduled for the week of the May 22nd was postponed, probably until July.
- June 19th and 20th there's the 2nd Annual RiverWare Users' Group meeting in Boulder. Mark Yuska will present, and Marc Sidlow and Dennis Romero will attend and assist.

Issues requiring Steering Committee Considerations:

- **Budget for FY01** - We need to consider funding for next year and to plan for specific tasks and accomplishments
- **Enhanced Middle valley gain/loss modeling** is one desired and highly anticipated continuation of work
- **Obtaining daily drain stage data may not happen below Caballo** May not be able to include detailed analysis
- **Don't forget about the database**