

Notes from URGWOM Steering Committee Meeting; May 11, 2006; 10:00 AM; Corps of Engineers Conference Room, Albuquerque

In Attendance:

Hal Cardwell, IWR, Corps (telecom)	Garret Ross, Reclamation
Conrad Keyes, Jr., Consultant to Corps	April Sanders, Corps
Lesley McWhirter, Corps	Nabil Shafike, NMISC
William J. Miller, WJM Engineering, Inc./Corps Contractor	Zhuping Sheng, TAMU
Shengweh Qi, Institute of Geology and Geophysics, Peoples Republic of China	Valda Terauds, Reclamation
Michael Roark, USGS	Vince Tidwell, Sandia National Labs
	Tim J. Ward, UNM
	Edie Zagona, CADSWES (telecom)

- ❖ April Sanders opened the meeting and requested that everyone introduce themselves.
- ❖ Mike Roark distributed a handout describing Technical Team activities since the last meeting. The handout is included at the end of these notes and additional discussion and questions raised at the meeting are briefly summarized below.
 - Development of URGWOM enhancements in the middle valley to improve surface water/groundwater interactions
 - Mechanisms and objects needed for enhancements will not be in new release, but the Technical Team goal is to lay the groundwork so they can be used when available.
 - URGWOM now splits the east and west canals in each reach of the middle valley and added new infrastructure, primarily between San Felipe and Central. Crop acreage will be split by east and west sides. ET Toolbox staff (Steve Bowser) will provide data using IKONOS.
 - The Technical Team needs to determine how to apply deep percolation information from cropland.
 - Testing for surface water/groundwater updates will be done by Mike and Nabil Shafike. RiverWare updates are expected by late May or early June. The MODFLOW interface should be fixed next.
 - **Question:** Is the Technical Team considering preparing a decision document to describe the approach for modeling surface water/groundwater interactions? Possibly, but not soon. The team needs to know how long it will take to implement the enhancement as this is a consideration for funding. The Technical Team focus will be on testing RiverWare objects first, then the design document will include the interfaces to be used in the south. The major limits to develop the documentation are staff and time.
 - The update of HEC-DSS will be completed within a few months.
 - The Technical Team is thinking about using a web page for users to report bugs and notify the team about needed fixes. This was originally scheduled for March (in last meeting notes), but now is anticipated by end of June.

- **Question:** Are targets being met by changes in model? Yes, for the most part.
- **Question:** Did the Technical Team receive any information from southern coordination efforts, such as feedback on next steps and did CADSWES review data? Not yet. The Technical Team decided to finish the surface water/groundwater interaction data first, but will look at it sometime this month.
 - Zhuping Sheng needs to know if the southern information is acceptable, and whether the southern modelers are considering issues and data correctly.
 - He will follow up to develop a schedule for communication with the Technical Team.
- ❖ Valda Terauds provided an update on coordination with Sandia National Labs regarding the testing and use of PowerSim.
 - Valda requested a detailed cost proposal with information on licensing and staff needs. Reclamation's funding is already allocated for this fiscal year, but the detailed cost proposal will help determine future funding needs.
 - Vince Tidwell of Sandia National Labs provided funding details, but they do not include licensing the software. The funding estimate for all labor costs for URGWOM Technical Team involvement is \$36,000. Valda requested a cost breakdown by person.
 - There are two different products—a reader and complete software to enable making changes.
 - The license for the full software costs approximately \$2,500. Vince promised to look into costs for agency use on a short-term basis.
 - Reclamation and Corps staff met with Senator Domenici's staff on May 9 and discussed the uses of URGWOM for water planning and daily operations. They will develop a 5-year plan to showcase URGWOM and ensure funding as the primary flow model for the basin. The 5-year plan will be a multi-agency steering committee effort with a strategy of trying to ensure future URGWOM funding by Congress and recognition of URGWOM development.
 - Zhuping stressed that collaboration is important due to other basin projects under development.
 - Because the southern projects are geared towards data collection, not water management, the Sandia National Labs proposal may not fit into southern basin plans. The Paso del Norte Watershed Council is willing to pull all projects together that are relevant to the southern Rio Grande reaches.
 - The Transboundary Initiative will utilize the USGS as the primary federal agency, then use state universities to cooperate on groundwater movement research, without any water management decisions or decision-making models. The Senate passed language, currently under consideration in the House, to support funding approximately \$50 million over 10 years, with a primary objective to collect data from transboundary aquifers in order to increase scientific knowledge on the behavior of aquifers.
 - The Steering Committee needs an estimate of Technical Team time needed to review the ability of PowerSim to mimic URGWOM output and evaluate its flexibility. Mike Roark pointed out that they may have some time in the near future while they are waiting for CADSWES to provide updates, but they are not likely to have time later in the year, so a Steering Committee decision is needed today.
 - The informal Scope of Work that was provided by Sandia National Labs generated questions.
 - The Steering Committee agreed that a detailed Scope of Work that documents costs, staff hours, and in-kind contributions should be provided. The Scope of Work will address developing a monthly hydraulic model at a coarser scale than URGWOM uses.
 - The federal agencies want to see what they will get from the URGWOM Technical Team collaboration because they have concerns over the transparency of the PowerSim model. The

- federal agencies are interested in this effort and see value in PowerSim, but they must ensure that the dollars spent allow them to have full access to the model.
- April Sanders spoke with a patent attorney who stated that if federal dollars are spent, there is a requirement that the federal agencies have full access under a royalty fee license, unless DOE has exceptions. This license does not cover state agency access, and the Steering Committee wants to ensure that cooperators are not precluded from model access. (Sandia National Labs is a signatory to the Memorandum of Agreement for URGWOM.)
 - Legal follow-up is needed to avoid misunderstandings in the future. The detailed Scope of Work is part of this follow-up.
 - **The Steering Committee agreed upon the need for Sandia National Labs and the URGWOM Technical Team to develop a Scope of Work including costs to be sent to April by next week. April will then review and send it out to the Steering Committee for review and will seek consensus before next meeting. If Steering Committee members do not respond by the deadline, then April will assume agreement.**
 - Conrad requested a copy of the MOA. Valda suggested that the current MOA could work to address collaboration, excepting the issues of licensing and copyright. A separate agreement for PowerSim may not be needed because the current MOA may cover the concerns identified in the March Steering Committee meeting, but the detailed Scope of Work is needed to determine this.
 - Vince agrees with the federal agencies' concerns and ensures that Sandia National Labs is committed to transparency to the agencies. They are currently consulting with lawyers to get the details worked out, but this may take more time than they have right now to get answers.
 - April will continue to work with Sandia National Labs to work out the above issues on licensing and other legal issues.
- ❖ Bill QA/QC Plan
- Update of 2003 version
 - Recommendation from Ping that need to change project description to include going down to Fort Quitman, not limited to American Dam. Add Ping to email list for Technical Team meetings. Add language that other efforts are ongoing below American Dam.
 - Bill will update and send out again with short turnaround by SC.
 - Recommend add date for Technical Review of southern portion of modeling effort or include in proposed October 2006 technical review meeting.
- ❖ EIS process
- Comment period ended. Meeting with technical teams to review comments and assign respondents.
 - Exec committee meeting set for June 14. Select preferred alternative, determine if ROD will be issues. On track for FEIS in August-September.
 - Water quality tech report has been revised and may affect selection of top-ranked alternative.

Technical Team Activities—Mike Roark

MIDDLE VALLEY DEVELOPMENT AND SW/GW INTERACTION

- Have started on the mockup of the new San Felipe to Central reach (test reach) using RiverWare 4.7 development. The reach will be used as the test for the new Surface-water/Ground-Water interaction methods. RiverWare 4.7 allows linking of objects without cluttering the workspace. Problems with the ability of importing Aggregate Diversion Objects in RiverWare 4.7 have led to mockup of test reach using RiverWare 4.6.8. When the release of RiverWare 4.7 is made the development of the test reach will continue in RiverWare 4.7.
- While developing the test reach, a problem with the simulation of crop deep percolation was noted. CADSWES will have to develop methods in the Aggregate Diversion Objects to allow the proper simulation of the crop deep percolation.
- With the rework of the Middle Valley, the irrigated acreage needs to be broken down to a finer detail. This task is being completed by the ET Toolbox team of the Bureau of Reclamation.
- Dave has finished mapping the crop types from the Ikonos designations to the set that is used by URGWOM.

TARGET FLOW CALCULATIONS

- Work has been complete and changes have been incorporated.

UPDATE OF DATA IN HEC-DSS DATABASE

- Technical team continues updating the model database with 2000 through 2004 data.
- Technical team is working with BOR to receive data from ET Toolbox since 2000 in a form that will allow entry into DSS database.

SANDIA COLLABORATION

- Vince Tidwell has attended the technical team meeting and answered questions. The technical team is still awaiting a decision by the Steering Committee on the collaboration with Sandia.

RULES AND LOGIC DEVELOPMENT

- Mark has finished moving the logic for the Rio Grande Compact from the Rules to expression slots in data objects. This will decrease the number of rules. He has made changes to the water ops model to work with the new rules and is in the process of changing the planning model to incorporate the new rules.

DEVELOP FORMAL PROCEDURE FOR MODEL AND RULES VERSIONING AND BUG FIXES

- Mark Sidlow has developed a draft procedure for the versioning of URGWOM models. He is currently writing a memo that explains the procedures and protocols which will be reviewed by the Technical Team.
- A concept for bug reporting and bug fix notification is the next task for the technical team