Draft Memorandum

To: URGWOM Technical Team Members

Date: November 13, 2024

Subject: Notes of November 12, 2024 URGWOM Technical Team Meeting

These notes summarize the items discussed during the November 12, 2024 meeting of the Upper Rio Grande Water Operations Model (URGWOM) Technical Team. The meeting began at 10:00 am (MST) and was conducted as a virtual meeting hosted by the Corps of Engineers using MS Teams. All those participating in the meeting introduced themselves and their names and affiliations are listed on the last page of these meeting notes.

The November, 2024 meeting agenda includes general updates on ongoing URGWOM related activities from the NM Interstate Stream Commission, the Corps of Engineers (report on Abiquiu Reservoir operation due to Rio Chama sediment plug), the Bureau of Reclamation, and their contractors, an update on RiverWare enhancements including a new data extraction tool and account viewer, and an introduction and report from the USGS on snowfall runoff modeling in the San Juan Mountains watershed.

Lucas reported on behalf of the Bureau of Reclamation on model updates and script development. The Otowi gage 30-year average flow record has been updated to the most current 30 year period ending in 2020. This is used for determining wet, average or dry runoff conditions. Reclamation, with the assistance of Hydros Consulting, also completed script modifications including the deletion of scripts not frequently used and the development of master scripts that can be used to call on subscripts that would be applied to specific modeling projects to simplify the process of running the simulations, such as planning or operation model runs.

Prakash reported on behalf of the Corps of Engineers about model simulations of Abiquiu Reservoir operations during the 2025 spring runoff taking into consideration the sediment plug restricting capacity in the river channel below the Dam. The current channel capacity is approximately 100 to 200 cfs and the Corps anticipates that the work underway by Interstate Stream Commission contractors could increase the channel capacity to 500 cfs by the end of 2024 so that the Prior and Paramount storage in Abqiuiu can be released before December 31, 2024. The model simulation indicates that under above normal runoff scenario and channel capacity of between 100 and 200 cfs, storage in Abiquiu Reservoir could exceed elevation 6283 which is the top of the flood control pool. In this event the Corps may have to pre-evacuate storage to free up capacity for flood storage in Abiquiu Reservoir. Flood control storage in Abiquiu due to the sediment plug could also impact San Juan-Chama project operations.

David Neumann reported on the development of model upgrades for the Bureau of Reclamation including data extraction tools and a new version of the account viewer. The data extraction tool is useful for the compilation and retrieval of data from multiple model runs with many traces, such as in multi-year planning or multiple daily operation model runs. The current data extraction tool was implemented in RiverWare version 9.3 and will be updated in version 9.4 which will be released by the end of 2024. The updated data extraction tool is a more flexible process and uses scripts to allow extraction of data based on the choice of the modeler. The extraction tool will open the model, run the script then close the model and send the extracted data to a location specified by the user. David demonstrated with a simple model how this process works. The extractor tool can also extract data into excel spreadsheets. David thinks that this extraction tool has lots of potential to extract plots, reports and other data. David will send these model updates to Lucas for his review.

David also demonstrated improvements to the account viewer that can be used to open and edit accounts. The account viewer has been simplified to allow direct access to the accounts to set up accounts or adjust methods used in the accounting model. CADSWES is working on other model improvements under their contract with the Corps of Engineers which will be discussed at the next Technical Team meeting

Kiara introduced Dave Moeser of the Geological Survey, NM Water Science Center, who is rejoining in Technical Team and will be participating in Team activities. David introduced Stephanie Roussel and Andre Ritchie who will be developing expertise in the use of the URGWOM model. David also reported that the Geological Survey has received funding for continue development of snow modelling in the San Juan Mountains of southern Colorado and northern New Mexico.

There will be no Technical Team meeting in December, 2024. The next meeting of the Technical Team will be January 14, 2025 beginning at 10:00 am. The meeting will be an online meeting.

There being no additional matters to be brought before the Team, the meeting was adjourned at about 10:40 am.

ATTENDANCE LIST

URGWOM TECHNICAL TEAM MEETING

November 12, 2024

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| NAME | REPRESENTING |
| Prakash Kaini | USACE, Albuquerque District |
| Kiara Takacs | USACE, Albuquerque District |
| Zachary Grader | USACE, Albuquerque District |
| Breanna Chavez | Tetra Tech/USACE Contractor |
| Yining Bai | NM Interstate Stream Commission |
| Cindy Stokes | NM Interstate Stream Commission |
| William Miller | Southwest Water Design/USACE Contractor |
| Brian Westfall | Keller Bliesner Engineering / BIA contractor |
| Kyle Shour | Tetra Tech/USACE Contractor |
| Lucas Barrett | Bureau of Reclamation |
| Stephanie Roussel | NM Water Science Center, USGS |
| Andre Ritchie | NM Water Science Center, USGS |
| Dave Moeser | NM Water Science Center, USGS |
| David Neumann | CADSWES |
| John Carron | Hydros Consulting |