To: URGWOM Technical Team Members

Date: November 11, 2021

Subject: Notes of the November 9, 2021 URGWOM Technical Team Meeting

These notes summarize the items discussed during the November 9, 2021 Upper Rio Grande Water Operations Model (URGWOM) Technical Team meeting. The meeting began at 9:00 am and was conducted as an on-line collaboration hosted by the Interstate Stream Commission using Microsoft Teams software. All those participating in the meeting introduced themselves and their names and affiliation are listed on the last page of these meeting notes.

This month's meeting agenda topics include a discussion on options for alternative depository/archive internet host site for the Tech Team files and general updates on ongoing URGWOM related activities from the Corps of Engineers, the Bureau of Reclamation, the US Geological Survey and the Interstate Stream Commission.

Lucas introduced two separate archive and depository alternatives to the myUSGS site he has investigated that could serve as the web-based depository for the URGWOM Tech Team models, reports, data, etc. The existing my USGS host site will cease to be available on January 28, 2022. The alternatives are the "Git" system and the other is Microsoft SharePoint. Lucas introduced David N. who briefed the Team on the Git system.

David reported that CADSWES has been using the Git system for a number of years. Git is an open source "version control system". The system consists of a local depository on the user's desktop which is a clone of the remote depository that would be set up on a local server or an internet based server. Users would have to maintain a copy of the entire depository on their desktop, however if an individual did not want to maintain a local depository, individual files could be downloaded from the remote depository but not uploaded.

David presented a demonstration of the use of the system by showing RiverWare model files of Klamath River basin that CADSWES is working on with Reclamation. David reported that the experience has been "seamless" and CADSWES has integrated RiverWare models into Git. This system is best used for model development and versioning control and not as an archive as the total file storage limit is 5 GB.

Lucas reported on his discussion with other Reclamation personnel regarding the use of the SharePoint software. He suggested that the Microsoft Teams and Microsoft SharePoint be maintained separately and not as a combined system to reduce complexity. The system would be set up to allow desktop users to use the system and no local depository is required. The system limitations are:

Maximum allowable upload: 15 GB

Maximum collection size: 25 TB

Dept. of the Interior file size limit: 300 GB (possibly expandable up to 1 TB)

For comparison, Lucas reported that the size of the 150 year URGWOM planning model and results is about 1.5 GB. Lucas demonstrated the SharePoint system that Reclamation uses for the Pecos River Basin Study.

Lucas volunteered to make a request through the Department of the Interior to determine the requirements to allow individuals to access the site, and special access requirements that may be in effect for those personnel outside of the Department of the Interior. Lucas would serve as the "owner" and distribute access permission to members of the Tech Team who are not Reclamation personnel. The Team will continue to explore the use of the Git system for use in version control and model development.

Marc reported for the Corps of Engineers that he has returned to work to assist with the URGWOM model program and that the Corps will be hiring a new Project Manager to fill the position previously held by Phil. The Corps has hired a RiverWare modeler but that person is on leave and could not attend today's meeting. That person should be able to attend the next Tech Team meeting.

Lucas inquired as to the status of the development and implementation of the Deep Aquifer Objects in URGWOM. Nick responded by saying that they are working on adding objects, rules, scripts, DMI's, etc., and completion of this work is still a few weeks out and that all work would be completed by the end of the year. Nick will keep the Tech Team apprised of the status of this work.

Hydros is working on the official URGWOM model which has been "out of service" for about one month while the DAOs are installed. The Model will have to be updated once the DAO work is completed. Lucas will undertake to update the model and Ed Kandl will review the updated model.

Cindy reported that the Interstate Stream Commission had no report to present to the Team at this time.

Dave M. was not able to attend this month's Tech Team meeting due to a scheduled conflict and therefore the USGS was not able to make a report to the Team at the meeting.

Zhuping reported that the Paso del Norte Watershed Council will be meeting in December and he requested that a representative from the Corps or Reclamation present a status report on URGWOM development to the Council. He stated that Phil Carrillo had made reports in previous years. Lucas indicated that he could be available to participate in the meeting and present a report.

The next meeting of the Technical Team is scheduled for December 7, 2021. The principal agenda item will be continued discussion about Tech Team document depository and archive. Cindy Stokes will host the meeting in the event that the new USACE Program Manager position has not yet been filled.

There being no additional matters to be brought before the Team, the meeting was adjourned at about 10:00 am.

ATTENDANCE LIST URGWOM TECHNICAL TEAM MEETING November 9, 2021

<u>NAME</u> <u>REPRESENTING</u>

Reynalden Delgarito USACE, Albuquerque District USACE, Albuquerque District

William Miller Southwest Water Design/USACE Contractor

Mike Brown Tetra Tech/USACE Contractor

Lucas BarrettBureau of ReclamationAndrew GelderloosBureau of ReclamationJerry MelendezBureau of ReclamationMichele Estrada LopezBureau of ReclamationCarolyn DonnellyBureau of Reclamation

David Neumann CADSWES

Nick Mander Hydros Consulting John Carron Hydros Consulting

Zhuping Sheng Paso del Norte Watershed Council

Aaron Beutler Keller-Bliesner Engineering

Cindy Stokes NM Interstate Stream Commission

Delbert Humberson IBWC

Ashenafi Madebo Colorado Division of Water Resources