

Draft Memorandum

To: URGWOM Technical Team Members
Date: November 17, 2025
Subject: Notes of November 12, 2025 URGWOM Technical Team Meeting

These notes summarize the items discussed during the November 12, 2025 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 12, 2025 meeting agenda includes general updates on ongoing URGWOM related development activities from the NM Interstate Stream Commission, the Corps of Engineers, the Bureau of Reclamation, the US Geological Survey, the Center for Advanced Decision Support for Water and Environmental Systems (CADSWES) and the National Weather Service West Gulf River Forecast Center.

Lucas reported that he will soon have a new URGWOM model ready for release that includes:

- Changes to the simulation of the operation of Platoro Reservoir;
- The removal of approximately 60 unused slots previously identified as redundant by Hydros Consulting (Lucas will circulate the list to Team members for their review); and
- Fixes to how the model calculates the Colorado Rio Grande Compact Credit Water status.

David reported that CADSWES has been working on scripting improvements that will include allowing for the movement of slots and changes that will allow the activation of unit schemes.

Prakash reported that the Corps is working with Hydros Consulting on reservoir water control manual updates.

Cindy reported that the NMISC did not have any matters to bring before the Team at this meeting.

Nick reported that Hydros Consulting is working with the Corps of Engineers on studying the flood frequency of the flow of the Rio Grande at the Otowi Bridge gage and a review of the sediment deposition at Cochiti Lake. The current model methods of simulating sediment deposition at Cochiti Lake assumes that the sediment will be deposited within the reservoir, however most of the sediment is being deposited in the reservoir delta at the head of the reservoir.

Lucas introduced Will Maddox, a hydrologist with the National Weather Service West Gulf River Forecast Center (WGRFC) who gave a PowerPoint presentation on the processes used in the development of the ESP (ensemble streamflow prediction) traces prepared by the WGRFC. Mr. Maddox described the 13 River Forecast Centers in the U. S. and he introduced some of the Team who work on the development of the ESP traces.

Will described the water supply workflow which involves the use of observed data and historic precipitation and temperature data. These data are input to the Snow-17, a model that simulates snowpack and soil moisture conditions at different elevations, which are used along with snow melt and rainfall data in a hydrologic model to produce the streamflow ensembles.

The “observed forcings” include the compilation of precipitation and temperature data (1991-2020) to prepare surface grids of snowpack and soil moisture across different elevation zones for use in the Snow-17 model. The three elevation zones used in the model are below 9,500 ft., 9,500 ft. to 11,000 ft., and above 11,000 ft.

The Snow-17 model determines if precipitation is falling as snow or rainfall based on temperature, adiabatic lapse rates and area-elevation curves. The density of the snowpack and its aspect and aerial extent are also input to the model. The amount of liquid runoff and a time lag with on-going precipitation are introduced into the hydrologic (runoff forecast) model. The first official forecasts are issued on January first of each year, but the models are run each day. Will displayed hydrographs of data used by the model and how the data interrelate. The SWE (snow water equivalent) may be adjusted based on judgement and use of data from (SNODAS) (SNOW Data Assimilation System). In estimating runoff, percolation into the soil zones using the Sacramento Soil Moisture Accounting Model (SAC-SMA), along with evaporation and transpiration are incorporated. The forecast implements a unit hydrograph and is adjusted based on current USGS gage data flow.

Thirty traces of flow data each 365 days long are produced, along with percentile rank for each forecast point, including reservoir inflow forecasts. New forecast points have been added to match the NRCS forecast points. Will displayed the historic WGRFC data compared to NRCS forecast data for use in model verification.

Will described ongoing efforts to improve the calibration process, including the use of data from the NWS Airborne Snow Survey Program. This program collects data on gamma radiation absorbed by the snowpack which are used to produce integrated SWE values.

Nick asked Will how the local inflow forecast values are prepared. Will said he did not know the answer to that question but would look into that and get back to Nick with a response.

Lucas thanked Will and his Team for an interesting and informative presentation. Will said he would provide a copy of his PowerPoint presentation to Lucas.

There will not be a December meeting of the Technical Team. The date for the next meeting of the Technical Team is January 13, 2026, 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 11:15 am.

ATTENDANCE LIST
URGWOM TECHNICAL TEAM MEETING

November 12, 2025

Prakash Kaini	USACE, Albuquerque District
Kiara Takacs	USACE, Albuquerque District
Betsy Summers	USACE, Albuquerque District
Breanna Chavez	Tetra Tech/USACE Contractor
Jade Allen	NM Interstate Stream Commission
Cindy Stokes	NM Interstate Stream Commission
Carolyn Donnelly	Bureau of Reclamation
William Miller	Southwest Water Design/USACE Contractor
Lucas Barrett	Bureau of Reclamation
David Neumann	CADSWES
Cibi V. Chinnasamy	Hydros Consulting
Nick Mander	Hydros Consulting
Jason Johnson	
William Watson	WGRFC
James Maddox	NOAA
Anna Grimes	WGRFC
Shawn Carter	National Water Center
Justin Louen	National Weather Service
Andrew Mangham	National Weather Service
Carrie Oiheisern	National Weather Service