Memorandum

To: URGWOM Technical Team MembersDate: March 19, 2018Subject: Notes of March 13, 2018 URGWOM Technical Team Meeting

These notes summarize the salient matters discussed during the March 13, 2018 Upper Rio Grande Water Operations Model (URGWOM) Technical Team meeting. The meeting began at 9:00 am in the NM Interstate Stream Commission Office in Albuquerque, NM. An attendance list is included on the last page of these meeting notes.

The principal meeting Agenda topics include a report on long-term (150-year) monthly and daily planning model runs, an update on the organization of URGWOM myUSGS web page, a report on model documentation, preview of the March 1, 2018 AOP model runs and the Technical Team Spring, 2018 field trip itinerary.

Jesse reported that he has successfully completed daily and monthly time step 150-year model runs and the daily time step run required a computer with 32 GB of RAM to complete the run. The model used was the URGWOM_7.0_09-05-17 and the URGWOM_7.2_02-14-18.rls.gz ruleset was used to drive the runs. Jesse described the changes to the model that were required, the runtimes and model sizes. He presented a series of plots of daily versus monthly time step hydrographs for streamflow data and reservoir storage data. Results look good except for differences at Platoro Reservoir, El Vado Reservoir (influenced by the application of Compact Art. VII storage restriction), and Cochiti Lake (sediment accumulates resulting in loss rates that exceed available supply of San Juan-Chama water). The daily versus monthly flow at San Marcial reflect, differences due to the effects of groundwater oscillation in the San Felipe to Isleta reach.

He concluded his report with the following recommendations: develop ACAPS adjustments for use at Cochiti Lake, address groundwater parameter dampening (CADSWES working on this), and review Platoro, El Vado and Caballo Reservoir operating rules to resolve discrepancies between daily and monthly values. After the discrepancies are resolved, the official model would be updated to reflect changes to rules, if any. The Team also discussed the need for a single data base for use with the merged model in lieu of the current three separate databases. The results of this investigation are presented in Jesse's March 9, 2018 Memo. Jesse requested comments on the draft memo be submitted by March 23, 2018.

Kyle updated the Team on recent enhancements to the myUSGS web page organization structure. He described the file architecture limitations imposed by the software and the work around solution that was developed. Folders were renamed starting with a date as the same file name cannot be duplicated for each year's files.

Miller reported to the Team on the status of model documentation. He reported that a preliminary draft physical model document had been assembled from previous model documentation of individual model areas, which were reformatted and compiled into a single document. Documentation prepared by Marc (operational policy) and Scott (water quality) will be added to the document. When these tasks are completed, the draft document will be circulated among the Team for additional review and comment. Documentation of rules, accounting, calibration model runs, etc. will be placed in separate volumes.

Marc presented the results of the March 1 forecast AOP model runs. He presented a series of hydrographs of streamflow and reservoir storage. This is not a record low forecast flow and the forecast actually improved slightly from the February 1st forecast. Team members thought that the computed El Vado Reservoir Prior and Paramount storage requirement was greater than the amount of forecasted inflow to El Vado during the runoff period.

The Team discussed the proposed itinerary for the spring Tech Team field trip and possible dates for the trip. This year's trip will be to the lower Rio Grande Valley. Miller will poll Team members to determine who is available on what dates so that planning for the trip might continue. The likely dates will be some time at the end of April or in early May.

Nabil reported on the recent URGWOM RiverWare training class held in El Paso, TX. Representatives of the irrigation districts and state and federal agencies were in attendance. About 25 people were in attendance and there was a high level of interest in the RiverWise application.

Scott briefly updated the Team on his recent review of model runs utilizing the soil moisture and the salinity functions. The consumptive use from the soil is a function of soil moisture and salinity levels may also influence the amount of consumptive use from the soil. This influence is most significant in the San Acacia to San Marcial reach. There are a number of supplementation groundwater wells in this reach of the river that are not included in the model.

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The impact of pumping these wells on the soil moisture / salinity interaction in the shallow aquifer cannot be readily determined at this time .

The next meeting of the Team has been scheduled for April 12, 2018.

The meeting adjourned at about 11:15 am.

ATTENDANCE LIST URGWOM TECHNICAL TEAM MEETING March 13, 2018

<u>NAME</u>

REPRESENTING

Marc Sidlow
Jesse Roach
Reynalden Delgarito
Kyle Douglas-Mankin
Scott Anderholm
William Miller
Lucas Barrett
Kenneth Richards
Nabil Shafike
Cindy Stokes

USACE Tetra Tech / USACE Contractor USACE USGS USACE Contractor WJM Engineers/USACE Contractor USBR USBR USACE NMISC

Those participating via telephone conference included:

Nick Mander	Hydros Consulting
Conrad Keyes Jr.	Paso del Norte WC / USACE Contractor
David Neumann	CADSWES
Brian Westfall	Keller Bliesner Engineering / BIA