

To: URGWOM Technical Team Members
Date: January 14, 2022
Subject: Notes of the January 11, 2022 URGWOM Technical Team Meeting

These notes summarize the items discussed during the January 11, 2022 meeting of the Upper Rio Grande Water Operations Model (URGWOM) Technical Team. 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 includes an update on the URGWOM Five-year Plan, a demonstration of model script enhancements, discussion of the migration and cataloging of Technical Team data from myUSGS to SharePoint, and general updates on ongoing URGWOM related activities from the Corps of Engineers, the Bureau of Reclamation and the Interstate Stream Commission.

Cindy reported to the Team that this would be the last Technical Team meeting hosted by the NMISC, as the Corps' URGWOM Project Manager position has been filled. Marc introduced Mr. Gannon Price who will be serving as the Corps' URGWOM Project Manager and will host the next meeting.

Miller presented to the Team an update of the URGWOM Five-year Plan (2022-2027). He presented slides showing the list of URGWOM tasks and the task completion schedule in the form of a Gantt chart. In addition to the Gantt chart, the Plan also includes a narrative description of the URGWOM activities and an estimate of the cost to complete each task. The general purposes of the Plan include serving as guidance for prioritizing and budgeting for agencies, demonstrating the need for funding for development and maintenance of the model, and assisting the Technical Team by directing the focus of work efforts to improve model efficiency and reliability. The Five-year plan is broken out into three categories including on-going and regular activities, model development and enhancements and planning model applications.

As a result of comments on the Five-year plan received during the meeting, the schedule for completion of the Lower Rio Grande update and implementation of the deep groundwater objects will show these tasks completed by the end of calendar 2022. Also, the completion date for work on climate change impact studies (Planning Support Task 3.2) will be changed to the end of 2022. Andrew reported that Reclamation is discussing the priorities of the Five-year plan internally and that Reclamation would be submitting comments, including the need for additional model documentation. Miller stated that he would incorporate the changes received to date into the Five-year plan.

David briefed the Technical Team on URGWOM scripting enhancements recently completed by CADSWES that will automate processes in the model, including improvements to script editors and improved file search capability. David demonstrated the use of the new script manager which will be made available in Version 8.4, which is to be released soon. In response to a question from Marc, David reported that the conditional logic development work will be funded under a FY23 Task Order.

Lucas reported on the status of the migration of URGWOM files from the myUSGS depository site to the Microsoft SharePoint site. He reported that URGWOM files for the 2017-2021 period have been copied to the SharePoint site and all that remains to be copied are the archived files on the myUSGS web page. Following discussion with Reclamation's IT personnel, Lucas reported that he had been advised that the Corps would not be able to obtain full access to the SharePoint site due to security protocols. The Team discussed alternative access possibilities for the Corps or another depository site but none were identified. Nabil reported that he will look into the ability of the Corps to gain access the SharePoint site.

Dave reported that the deadline for discontinuation of the myUSGS repository site has been extended by one year to January 2023.

The Team agreed to use the SharePoint site going forward to serve as the URGWOM file repository. The archive file on the myUSGS site can be downloaded to the SharePoint site at any convenient time within the next year.

Lucas presented a draft format for use in cataloging the Technical Team files from the myUSGS site on the SharePoint site. The format would be based on the topic of the file; the current myUSGS site catalog is based on the date of the particular file. Lucas requested that Technical Team members submit comments or suggestions on the proposed catalog format to be used for URGWOM files in the SharePoint site.

John reported that Hydros Consulting has been reviewing the UGWOM model functionality for the NMISC and during the course of this work he identified some objects in the model that are not located in the correct physical location. The current model shows the location of the Atrisco Riverside Drain and the Albuquerque Riverside Drain outfalls as discharging to the Rio Grande upstream of the Isleta Lakes streamgage on the Rio Grande. The actual location of the outfalls of these drains is located downstream of the Isleta Lakes streamgage. John presented hydrographs of flow at the Isleta Lakes gage before and after the change in the location of the gage which shows that the relationship between the recorded flow and the simulated flow is improved by moving the gage location. Nabil reported that the Isleta Lakes gage object is a relatively recent addition to the model and is not located in the correct location. He also stated that because the Isleta Lakes gage is a new gage, it is not used in the model calibration.

John also brought up the location of the Albuquerque Bernalillo County Water Utility Authority water user object. This matter was discussed during the July, 2021 URGWOM Technical Team field trip. The current object location in the model is downstream of the Paseo del Norte Bridge gage. The object should be located upstream of the Paseo del Norte Bridge gage. The Team agreed to proceed with the change to the model configuration that would move the ABCWUA water user object to a location upstream of the Paseo del Norte Bridge gage object and to move the location of the Isleta Lakes gage object to a point upstream of the locations of the Atrisco and Albuquerque Riverside Drain outfalls. Mike suggested that the object description include text that describes the date and the reasons for the changes in the locations of these two objects.

Nick reported that the work to disable the Colorado portion of the model for use in planning runs is on hold due to priority of other work tasks.

Dave reported on the release of a USGS report on research he has been conducting and he sent a link to the report to Technical Team members. The report is entitled “Streamflow Response to Potential Changes in Climate in the Upper Rio Grande Basin” Scientific Investigations Report 2021–5138, 2021.

Lucas reported to the Technical Team that he will be sending out invitations in the near future to the appropriate individuals to attend a pre-AOP meeting to begin planning for the development of the 2022 AOP model.


The next meeting of the Technical Team is scheduled for February 15, 2022, beginning at 9:00 am. The Corps (Gannon Price) would serve as host for the meeting.

There being no additional matters to be brought before the Team, the meeting was adjourned at about 10:15 am.

ATTENDANCE LIST
URGWOM TECHNICAL TEAM MEETING
January 11, 2022

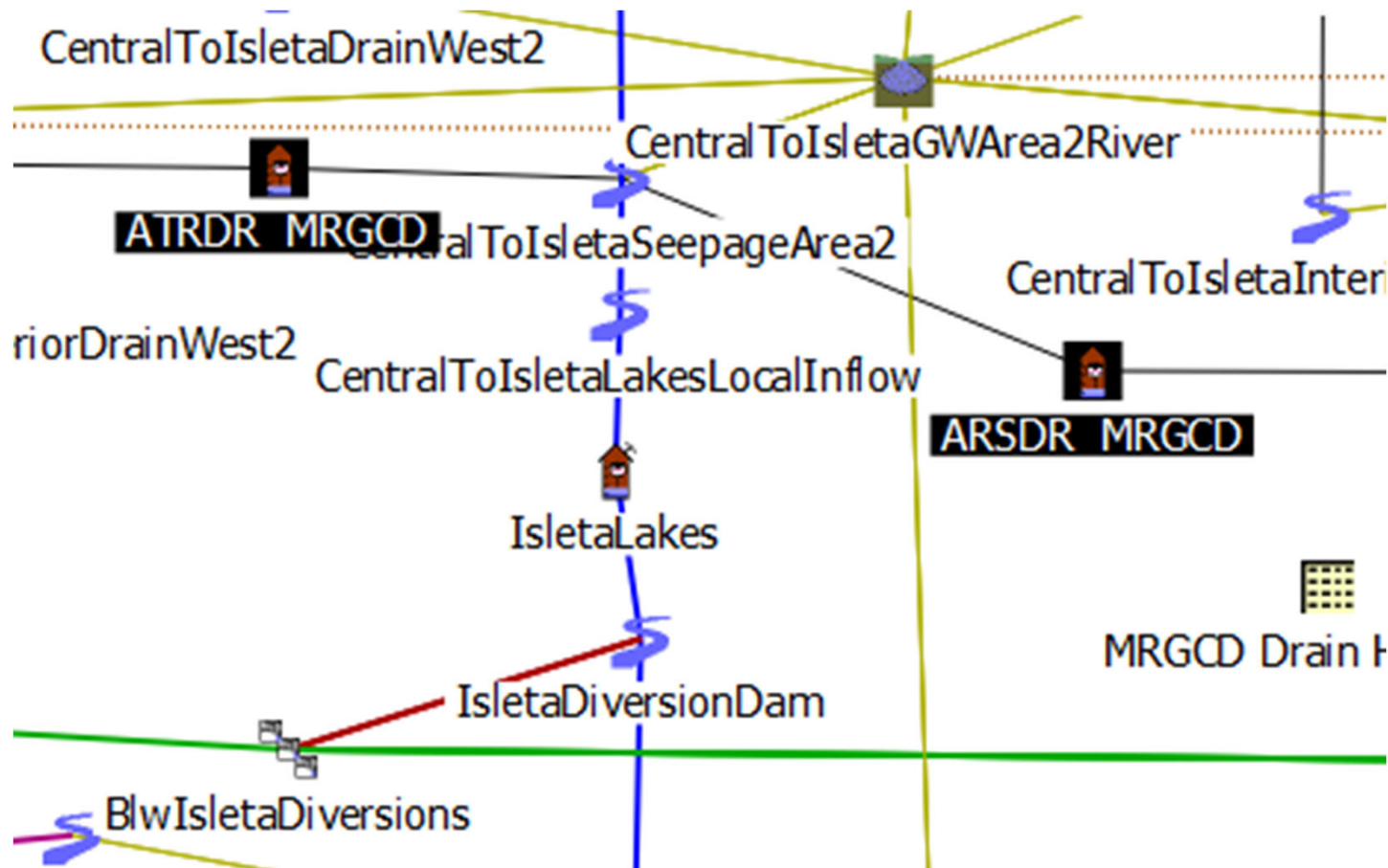
<u>NAME</u>	<u>REPRESENTING</u>
Reynalden Delgarito	USACE, Albuquerque District
Marc Sidlow	USACE, Albuquerque District
Prakash Kaini	USACE, Albuquerque District
Nabil Shafike	USACE, Albuquerque District
Gannon Price	USACE, Albuquerque District
William Miller	Southwest Water Design/USACE Contractor
Mike Brown	Tetra Tech/USACE Contractor
Walt Kuhn	Tetra Tech/USACE Contractor
Lucas Barrett	Bureau of Reclamation
Andrew Gelderloos	Bureau of Reclamation
Jerry Melendez	Bureau of Reclamation
David Neumann	CADSWES
Nick Mander	Hydros Consulting
John Craven	Hydros Consulting
Cindy Stokes	NM Interstate Stream Commission
Dave Moeser	NM Water Science Center
Diane Agnew	Albuquerque Bernalillo County Water Utility Authority
Mark Kelley	Albuquerque Bernalillo County Water Utility Authority
Zhuping Sheng	Paso del Norte Watershed Council
Sandra Lucero	Bureau of Indian Affairs

URGWOM MRGCD Drain Return Flow Locations near the Isleta Lakes Gage

A horizontal bar spanning the width of the slide, divided into two sections: a dark blue section on the left and a light teal section on the right.

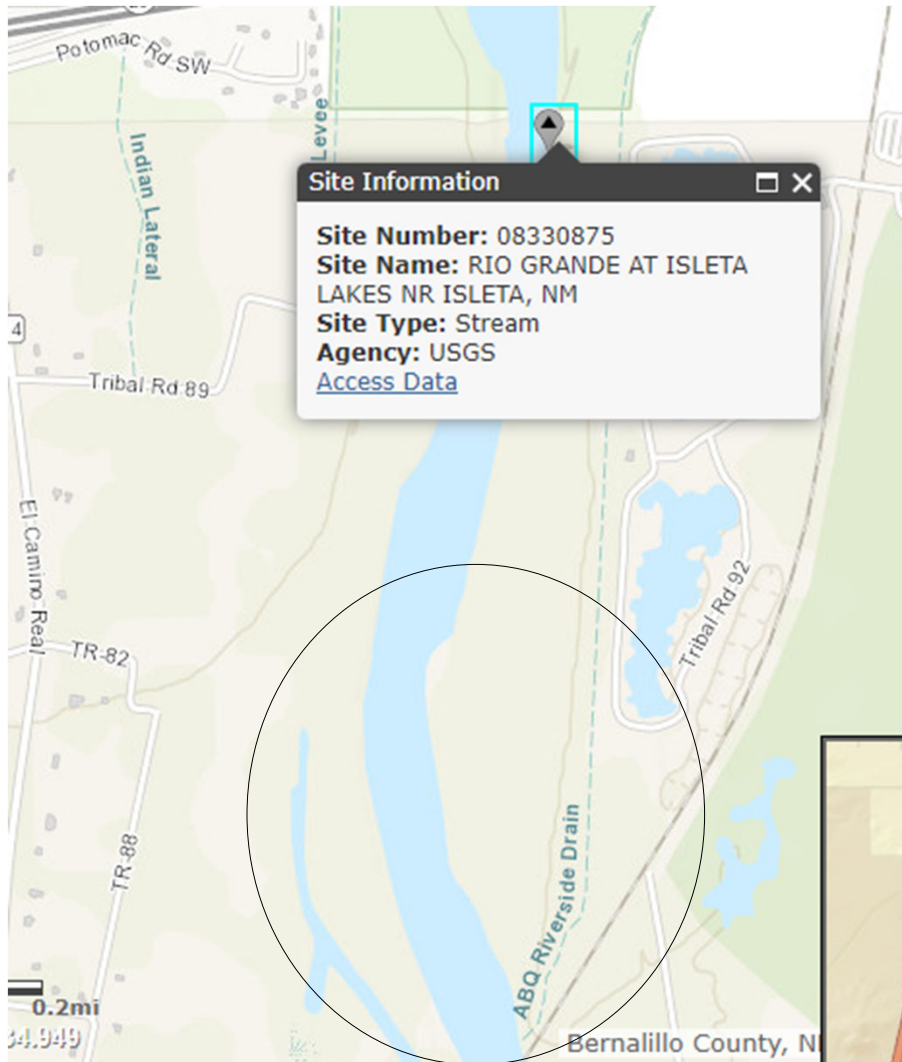
Hydros Consulting, Inc.
January 11, 2022

URGWOM: Current Model Network



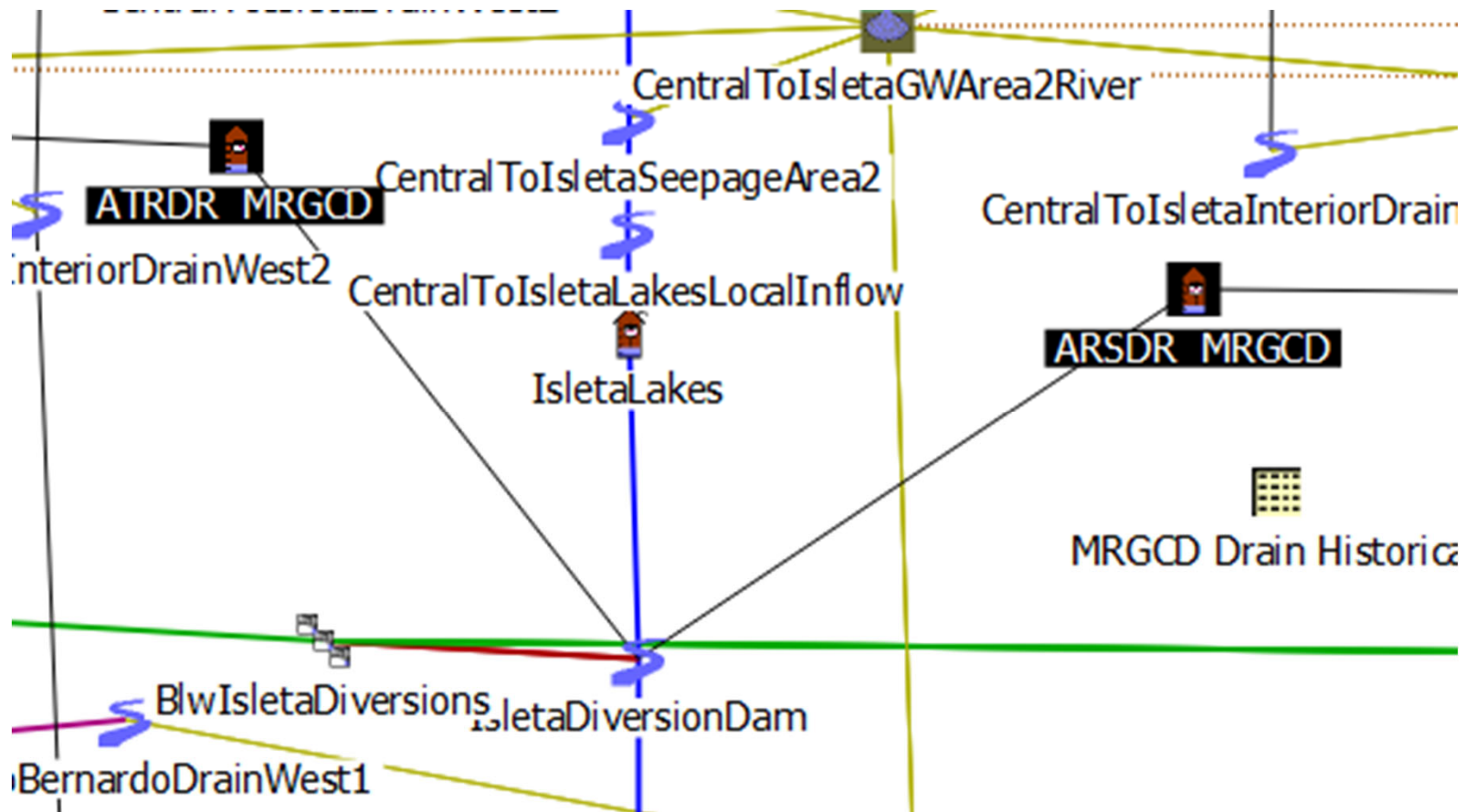
ATRDR MRGCD and ARSDR MRGCD return ABOVE the Isleta Lakes gage

Drain Return Flow Locations



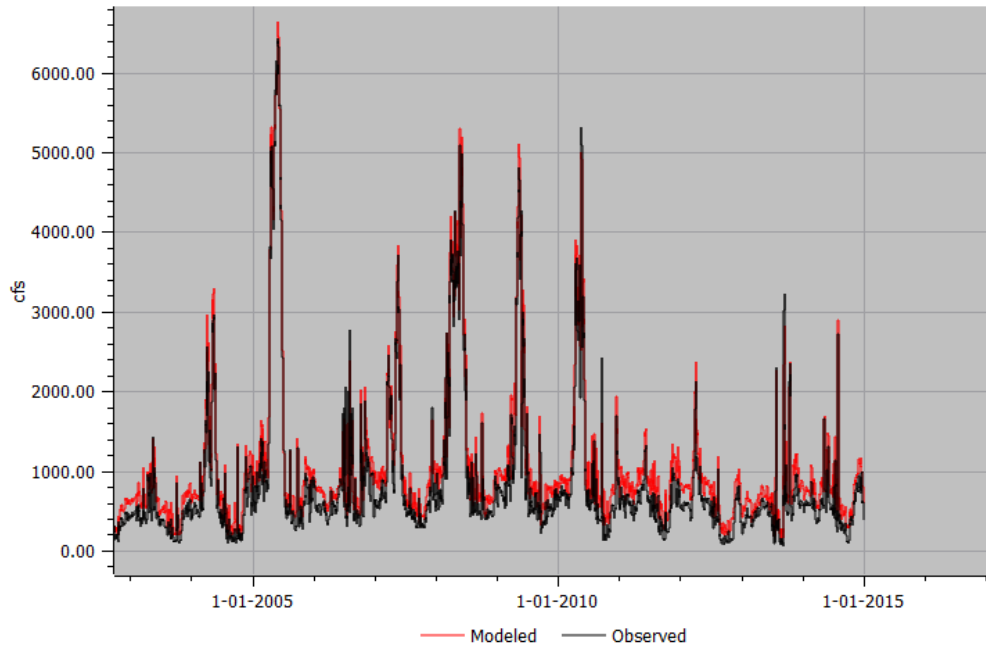
Topo map and GIS coverage show drains returning BELOW the Isleta gage

URGWOM: Proposed Update to the Model Network

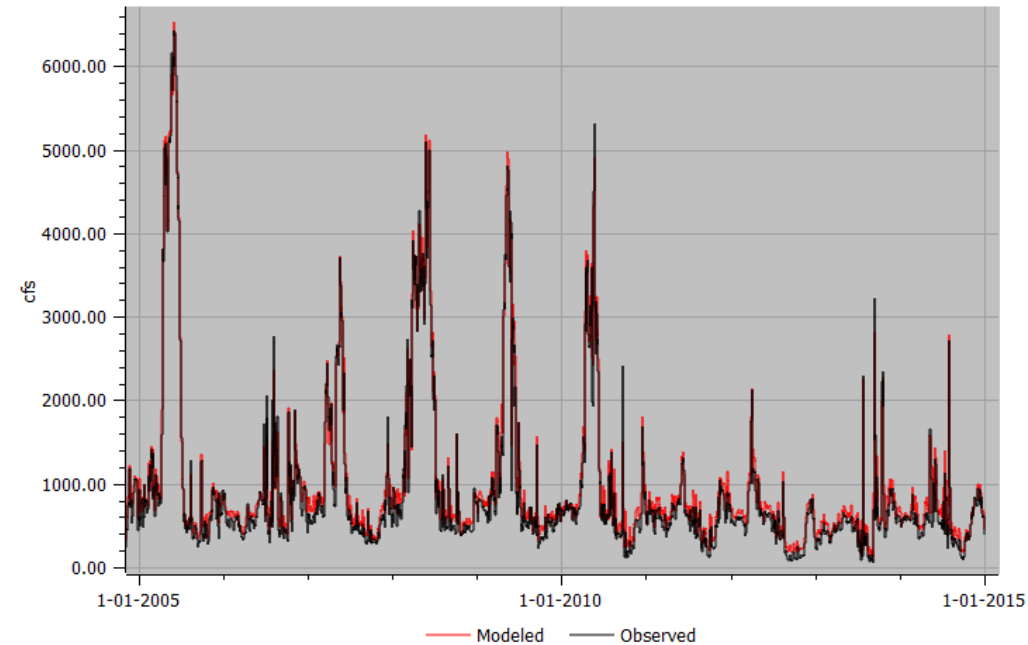


ATRDR MRGCD and ARSDR MRGCD return BELOW the Isleta Lakes gage

Changes to Modeled vs. Observed at the Isleta Lakes Gage



Before (drains above gage)
RMSE: 210 cfs



After (drains below gage)
RMSE: 115 cfs



Center for Advanced Decision Support for
Water and Environmental Systems (CADSWES)

UNIVERSITY OF COLORADO **BOULDER**

Scripting Enhancements

Presenters: David Neumann

URGWOM Tech Team Meeting

January 11, 2022

Multiple Levels of Subscripts

- 5 levels allowed
- Indented
- Overrides supported
- Progress
- Expand All / Collapse All

AOP Forecast Setup

This script allows changes of the forecast parameters for an annual operating plan (AOP) run.

▼ ☒ ☐ Execute Script Set Run Info

▼ ☒ ☐ Execute Script Set Run Range

This script sets the run range, synchronizes objects (if necessary), and

☒ ☐ Set the run range to: Jan 1, Start Year -- Dec 31, Finish Year

Use Start Date: ▼ ...

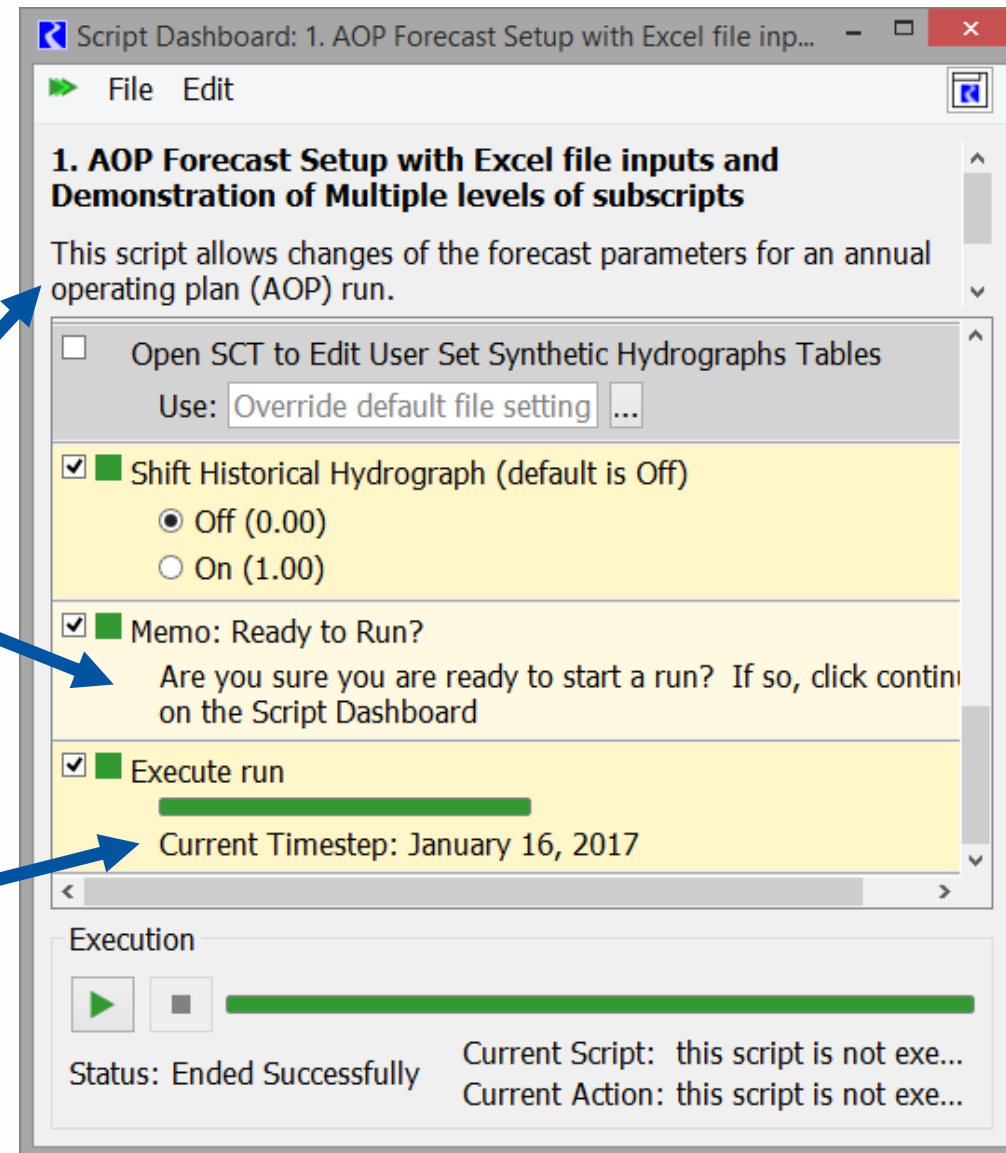
Use End Date: ▼ ...

☐ Synchronize objects to: Start Timestep - 1 -- End Timestep

☒ ☐ Set the controller to Inline Rulebased Simulation and Accounting

Dashboard Enhancements

- Paused Memo Action - Manager is no longer raised to top
- Memo, Title and Description text are wrapped better
- Timestep labels provided on Execute Run actions



Script Editor Enhancements

- Search

The screenshot displays the 'Script Editor' interface with a search functionality. At the top, there is a table with two columns: 'Text' and 'Type'. Below this table, there is a section titled 'Selected Action Settings (Set Scalar Slot Value)' which contains another table with 'Setting' and 'Value' columns. At the bottom, there is a search bar with the text 'NRCS' and a red box highlighting the search area. To the right of the search bar, there are checkboxes for 'Text', 'Type', and 'Value'.

Text	Type
<input checked="" type="checkbox"/> Select the NRCS Exceedance Probabi...	Set Scalar Slot Value
<input checked="" type="checkbox"/> User Set Synthetic Hydrograph Switc...	Set Scalar Slot Value
<input checked="" type="checkbox"/> Execute Script Prepare Input Data in ...	Execute Script

Selected Action Settings (Set Scalar Slot Value)

Setting	Value
Show in Dashboard	Yes
Display Text	Select the NRCS Exceedance Probability Forecast to run (defau...

☒ Search

NRCS

☐ ☐ ☒ Text ☒ Type ☒ Value

- Multiple selection Copy/Paste