Your abstract submission has been received

Print this page

You have submitted the following abstract to 2019 CERF Biennial Conference. Receipt of this notice does not guarantee that your submission was complete or free of errors.

National Water Center NERTO Experience: Low flow reservoir release predictions for the National Water Model

Elizabeth A Del Rosario, MS, Harte Research Institute Gulf of Mexico Studies, Texas A&M University-Corpus Christi, Corpus Christi, TX and Trey Flowers, PhD, PE, NOAA/NWS/Office of Water Prediction-National Water Center, Tuscaloosa, AL

Abstract Text:

The National Oceanic and Atmospheric Administration (NOAA) Experiential Research & Training Opportunities (NERTO) provides EPP/MSI Cooperative Science Center-supported students with a valuable NOAA mission-aligned internship. The National Water Center (NWC) in Tuscaloosa Alabama enables NOAA to deliver water information and services to the nation. The National Water Model (NWM) is a hydrologic model that simulates observed and forecast streamflow over the entire continental United States (CONUS) using the network of USGS stream gages. The NWM simulates the water cycle with mathematical representations of the different processes and how they fit together. The NWM complements current hydrologic modeling which is done in a simplified manner for approximately 4000 locations across the CONUS by providing information at a very fine spatial and temporal scale at those locations, as well as for locations that don't have a traditional river forecast. The purpose of this NERTO project is to develop data-driven correlations to predict reservoir releases under low flow conditions. This will be done by investigating datasets; the identification of watersheds that have a long record of reservoir releases and other data sets (irrigation demand, soil moisture, etc.); and the development of correlations between thresholds in the data sets and reservoir releases. The correlations will then be used as a predictive measure for the triggering of a release. A minimum of two watersheds that exhibit low flow conditions will be identified and analyzed; additional watersheds will be investigated as appropriate. Reservoirs will be selected and primary purposes for withdrawals determined. This project will look at release requirements, the releases that were made, and then correlate the releases to other datasets to determine what prompted the release decision. The correlations determined will then be used to construct a predictive model that can be used to inform the NWM.

First Topic Selection:
Education partnerships in coastal and marine science

Second Topic Selection:
Ecosystem-based management: Challenges and opportunities for regional implementation

Title:
National Water Center NERTO Experience: Low flow reservoir release predictions for the National Water Model

Submitter's E-mail Address:
elizabeth.delrosario@tamucc.edu

Preferred Presentation Format:
Traditional Oral preferred, Poster is acceptable (no Lightning)

Release of Abstract:
I agree to the publication of my abstract and other related information.

Keywords:
NERTO, National Water Model , freshwater inflow, hydrologic modeling and watershed management

First Presenting Author

Presenting Author
Corresponding Presenting Author

Elizabeth Del Rosario, MS
Email: edelrosario@islander.tamucc.edu

Harte Research Institute Gulf of Mexico Studies, Texas A&M University-Corpus Christi
6300 Ocean Dr, HRI 311
Corpus Christi TX 78412
USA

Second Author

Trey Flowers, PhD, PE
Email: trey.flowers@noaa.gov

NOAA/NWS/Office of Water Prediction-National Water Center
205 Hackberry Lane
Tuscaloosa AL 35401
USA

If necessary, you can make changes to your abstract submission

- To access your submission in the future, use the direct link to your abstract submission from one of the automatic confirmation emails that were sent to you during the submission.
- *Or* point your browser to /cerf/reminder.cgi to have that URL mailed to you again. Your username/password are 5360/775977.

Any changes that you make will be reflected instantly in what is seen by the reviewers. You DO NOT need to go through all of the submission steps in order to change one thing. If you want to change the title, for example, just click "Title" in the abstract control panel and submit the new title.

When you have completed your submission, you may close this browser window.

Tell us what you think of the abstract submission process

Home Page