



# CIROH is facilitating Community Contributions to the National Water Model



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## CIROH wants YOU to Improve the National Water Model

In version 4.0, slated for release in 2026, the U.S. National Water Model (NWM) will be transitioning to the NextGen Water Resources Modeling Framework. Engage with CIROH – the Cooperative Institute for Research to Operations in Hydrology – to make a difference in water forecasting for your basin.



NextGen needs you!

Come use our CIROH community versions of the NextGen tools to get started:

- NextGen in a Box (NGIAB): NextGen prepackaged execution environment.
- NGIAB Data Preparation Tool: Easy map-based tool to create CFE-based NextGen realizations with all necessary inputs.
- NextGen Datastream: Benchmark dataset for demonstrating model improvements. (Coming Soon!)

1 NextGen-In-A-Box Data Preparation Tool (run a NextGen-based simulation in just a few clicks!)

2 Selected Basins  
wb-416618 Select outlet basin from latest hydrofabric:  
<https://noaa-owp.github.io/hydrofabric/>  
tributary watersheds determined from topology

3 Catchments Successfully Subset!  
Subset

4 Retrospective v3.0 Range:  
Feb 1979 – Jan 2023  
Create Forcing From Zarrs Warning: This will take a while

5 Generates CFE basic simulation;  
PET and Snow coming soon!  
Realization.json Configuration Generated!

6 Point your NGIAB instance directly at the data package from the data preparation tool

Do hydrology!

Model Guidance  
Not Official Forecast

Black Warrior River at Oliver Lock and Dam  
NWSL: TODA1, Reach ID: 18229923

PAST FUTURE

Latest observed value: 22 kcfs  
5:38 PM CST 15-Feb-2024  
Flood Stage is 129 ft

Action: 122 ft

MBB: 114.5 ft / 30.71 kcfs  
SR: 114.3 ft / 30.15 kcfs

Site Time (CST)  
Graph Created: (06:49 PM CST Feb 15 2024) – Forecast Issued (07:47 AM CST Feb 15 2024)

Zoom 1d 2d 7d 14d All

How can I learn more about NextGen?



[dataaccess.ciroh.org](http://dataaccess.ciroh.org)

- Data Prep step-by-step instructions.
- NextGen-In-A-Box execution steps.
- NWM input and output links.
- Coming soon: Datastream access.

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