



# California GIS Council Progress Report

<b>Workgroup: National Hydrography Dataset (NHD)</b> Workgroup page*: <a href="http://cgia.org/cagiscouncil/workgroups/hydrography/">http://cgia.org/cagiscouncil/workgroups/hydrography/</a> Workgroup Chair: Jane Schafer-Kramer ( <a href="mailto:jane.schafer-kramer@water.ca.gov">jane.schafer-kramer@water.ca.gov</a> ) NHD pages on the CNRA Open Data site: <a href="https://data.cnra.ca.gov/dataset/national-hydrography-dataset-nhd">https://data.cnra.ca.gov/dataset/national-hydrography-dataset-nhd</a> and <a href="https://data.cnra.ca.gov/dataset/nhd-major-features">https://data.cnra.ca.gov/dataset/nhd-major-features</a> NHD Stewardship Program page on the Department of Water Resources website: <a href="https://water.ca.gov/Programs/All-Programs/National-Hydrography-Dataset-Stewardship">https://water.ca.gov/Programs/All-Programs/National-Hydrography-Dataset-Stewardship</a>	Report Date: December 8, 2022
---	----------------------------------

\*See the workgroup page for workgroup charter, members, contact information, and prior reports.

Members of the NHD workgroup regularly interact as part of the ongoing work of the California Department of Water Resources (DWR) NHD Stewardship Program. (Stand-alone CA GIS Council NHD Workgroup meetings have not been held.) Our primary partners are the **Geographical Information Center at CSU Chico** and the **Center for Geospatial Science and Technology at CSU Northridge**. Current and past stewardship partners are **Redwood National Park**, **Los Angeles County Public Works**, the **Marin County collaborators**, and the **US Forest Service**. New partners are always welcome.

## Requests for Council Action

None

## Status Update

### NHD and WBD to become static in 2023

USGS posted on their website <https://www.usgs.gov/national-hydrography/stewardship-and-community> the timeline for the phase-out of updates and maintenance of the current National Hydrography and Watershed Boundary Datasets. Only two states - California and Washington - have been granted extra time to edit the NHD; we will lose access to editing on April 1, 2023. We will edit the WBD from April 1 to June 30, 2023. The final static version of both datasets will be published by USGS on September 30, 2023.

Markups are no longer being accepted in the USGS [Markup application](#). All valid errors reported through the markup will be addressed before the NHD becomes static. The California steward will accept requests for edits directly through December 15, 2022, at [nhd\\_stewardship@water.ca.gov](mailto:nhd_stewardship@water.ca.gov).

We recently learned that USGS plans to incorporate the static NHD into the 3DHP as 3DHP gets built out over the next eight years. As new elevation-derived hydrography is accepted into 3DHP it will replace the NHD data for those extents. USGS will continue to host the static NHD and WBD on its website for the duration of the 3DHP and beyond as legacy datasets.

### More on the 3D Hydrography Program

Background on the 3DHP Program is available at <https://www.usgs.gov/national-hydrography/3d-national-topography-model-call-action-part-1-3d-hydrography-program>



You may view a recording of a November 29, 2022 USGS presentation “Governance, Partnerships, and Data Acquisition to Support the 3D Hydrography Program” at this link:

<https://www.usgs.gov/media/videos/governance-partnerships-and-data-acquisition-support-3d-hydrography-program>

Acquisition of the elevation-derived hydrography that will be the basis for the 3DHP will be accomplished through public-private partnerships and is modeled on the [3D Elevation Program \(3DEP\)](#) for lidar acquisitions. USGS expects to release a Broad Agency Announcement (BAA) for 3DHP cost-sharing proposals early in 2023, but that depends on action by Congress on the federal budget. USGS has said that in the first year, USGS funds will only be available for projects managed through the [Geospatial Products and Services Contracts](#) process. The California Hydrography Stewardship team is interested in applying for funding through a [cooperative agreement](#) process and creating the elevation-derived hydrography (EDH) in-house. Federal funds for cooperative agreements will not be available the first year (2023). The California team plans to focus on our EDH pilot project for a portion of Los Angeles County in the second half of 2023. We are considering where to test our tools and workflow elsewhere in the state (where 3DEP lidar already exists) to see how the workflow performs across various landscapes. **We’d be glad to meet with interested parties who can contribute reference data such as culverts and major stormwater infrastructure points for their areas. We’re also eager to meet with anyone considering submitting a proposal to the BAA once that is released.**

The team (Jane Schafer-Kramer (CA DWR), Erik Fintel (CSU Chico), and Joel Osuna (CSU Northridge)) gave a presentation on our current work at the Esri Pacific Users Conference in Sacramento on November 16. The slides are posted on our California Natural Resources Agency Open Data site page at <https://data.cnra.ca.gov/dataset/national-hydrography-dataset-nhd> (scroll down to the end of the list.)

### **Derogatory Names Removed from the NHD**

With a few exceptions, the downloadable NHD datasets for California no longer contain feature names that contain the derogatory term “squaw”. Approximately 80 names were removed and most have replacement names, per Department of Interior Secretary’s Order 3404. Here is a related media release:

<https://www.doi.gov/pressreleases/interior-department-completes-removal-sq-federal-use>

USGS is in the process of updating the remaining sq\*\*\* names and the changes will be reflected in the next posting of the staged extracts from the national database. It will take longer for the changes to be reflected in the USGS web map services.

The datasets may be downloaded from these linked cloud hosting sites:

[Download the NHD by 8-digit Hydrologic Unit \(HU8\)](#)

[Download the NHD by 4-digit Hydrologic Unit \(HU4\)](#)

[Download the NHD by State](#)

### **Ongoing Work**

**Our Interagency Agreements** with the Geographical Information Center at CSU-Chico and the Center for Geospatial Science and Technology at CSU-Northridge will allow for us to continue a portion of our work plan, but amendments will be needed to cover new work more closely aligned with 3DHP. Our stewardship team meets regularly to discuss next steps and longer-range plans. We aim to have an updated work plan scoped out in Q1 2023.

**Maintenance on the California NHD and WBD at the 1:24,000 scale** will continue until we are cut off from editing. HU 8 subbasins that were first edited by these centers up to six years ago are being updated using recent NAIP imagery and new reference data sources. We are actively updating the NHD in US Forest Service lands – which were excluded from our own



editing work until now by request of USFS - but we will not be able to complete this task for the entire state before the deadline.

### **Streamgages Added to the NHD**

All stream gage locations that collect flow data from the California Data Exchange Center (CDEC) <https://cdec.water.ca.gov/> have been added to the NHD directly as NHDPnt features. We are finishing up the join tables that will enable users to connect the CDEC information to the NHD.

### **Redwood National Park**

NHD improvement work within Redwood National and State Parks has been completed. The work was done by USGS-trained editors in the National Park Service under the direction of David Best. The editing work referenced lidar that had been collected in 2007.

Action	Key Date
Continue NHD Update work through 3/31/2023 and WBD work through 6/30/2023	Q1&2 2023
Scope out future work under interagency agreements with CSU partners	Q1 2023
Complete elevation-derived hydrography pilot for Los Angeles County	Q3 2023

### **Other Notes**

None

### **Appendix**

Contact Information:

Jane Schafer-Kramer

[Jane.Schafer-Kramer@water.ca.gov](mailto:Jane.Schafer-Kramer@water.ca.gov) or [nhd\\_stewardship@water.ca.gov](mailto:nhd_stewardship@water.ca.gov)

Department of Water Resources, Division of Planning

916-902-7152