



California GIS Council Workgroup Report

Workgroup: National Hydrography Dataset (NHD) Workgroup page*: http://cgia.org/cagiscouncil/workgroups/hydrography/ Workgroup Chair: Jane Schafer-Kramer (jane.schafer-kramer@water.ca.gov)	Report Date: March 12, 2020
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*See the workgroup page for workgroup charter, members, contact information, and prior reports.

Requests for Council Action

None at this time

Status Update

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.)

Training Events and Other Recent Work

Stewardship partners led a one-day workshop: "Getting to Know the National Hydrography Dataset" at CalGIS 2020 in Long beach on February 9. Two one-day workshops are planned in the next month for DWR staff. A two-hour presentation on the NHD is tentatively planned for #maptimedavis on April 14, 10-12 at the DataLab classroom (Shields Library 360) at UC Davis. Staff is available to present a workshop for any organization that is interested in hosting. Please contact Jane.Schafer-Kramer at water.ca.gov to make arrangements. (Subject to COVID 19 directives)

A new derivative product – Major Lakes and Reservoirs - is now available for download on the NHD page of the California Natural Resources Agency Open Data site:

<https://data.cnra.ca.gov/dataset/national-hydrography-dataset-nhd>

The derivative products are updated quarterly after USGS posts its statewide data update.

Planned Future Work

Planning is underway for NHD improvements to be done over the next two years by our partners at the Geographic Information Center at California State University-Chico and the Center for Geospatial Science and Technology at California State University-Northridge. These tasks include:

- Updating the Coastline features to align with the most recent NOAA data and expand the Estuaries features to represent more of what our user community considers to be estuaries.
- A pilot project on LiDAR-derived hydrography
- Development of training resources on the NHDPlus High Resolution
- Updating selected HU8 subbasins at 1:24,000 scale.
- Linking [CDEC](#) flow gaging stations to the NHD

Ongoing work

Work continues with representatives of the Golden Gate Parks Conservancy, the County of Marin, Quantum Spatial, Inc. and others who are interested in incorporating "local resolution" hydrography derived from a new (2019) countywide LiDAR collected as part of the 3DEP program into the NHD. This is the first effort of its kind in California.



DWR's partners at California State University-Chico (CSU-C) and California State University-Northridge (CSU-N) continue to make progress on updating the 1:24,000 scale NHD. Interagency agreements are in preparation for work to be done over the next two years. Local Resolution (1:4,000 scale) edits within the Legal Delta are expected to be available for download this summer.

We review suggested corrections to the NHD received via the [USGS Markup Application](#) and resolve as best we can.

USGS has incorporated the 1:24,000 scale NHD data into NHDPlus. NHDPlus High Resolution has been released in beta for all of California; DWR is participating in the QC review of the dataset. More information on NHDPlus may be found at <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/nhdplus-high-resolution>. The "User's Guide for the National Hydrography Dataset Plus (NHDPlus) High Resolution" has just been published on the USGS website <https://pubs.er.usgs.gov/publication/ofr20191096>

The stewardship program is working on adding water feature names to the NHD. Names must first be accepted by the USGS' Geographic Names Information System (GNIS) before they can be added to the NHD, and program staff have established a streamlined process with GNIS staff to accomplish this. Suggestions for missing names of NHD features may be sent to Jane or may be entered in the NHD Markup application <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/tools#Markup>.

DWR has begun to archive the California extracts of the NHD on the Natural Resources Agency Open Data site <https://data.cnra.ca.gov/dataset/nhd-archive> each time the dataset is refreshed on the USGS website, which happens four times each year. Also on the CNRA Open Data site are quick links to the various NHD websites and two derivative datasets: NHD Major Rivers, and NHD Major Rivers and Creeks.

Errors in the NHD may be brought to the attention of DWR and USGS using USGS' Markup Application: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/tools#Markup> or by contacting Jane directly: Jane.Schafer-Kramer@water.ca.gov

Legislative/Policy Update

The Memorandum of Understanding between DWR and USGS has been approved by DWR and is still in USGS internal review.

Action	Key Date
Finalize MOU (awaiting action by USGS)	open
Continue NHD Update work	ongoing
Formalize pilot projects with CSU partners	Early 2020

Notes

Organizations can participate in California's NHD Stewardship Program by contributing reference datasets and/or becoming NHD editors. Contact Jane at jane.schafer-kramer@water.ca.gov or at 916-653-4441 for additional information. Any questions on NHD stewardship in California may also be directed to Jane. The California NHD Stewardship Program website is: <http://www.water.ca.gov/waterdatalibrary/NHD/index.cfm>

Documents and Attachments

None for this quarter