



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) NHD page on the CNRA Open Data site: https://data.cnra.ca.gov/dataset/national-hydrography-dataset-nhd	Report Date: September 10, 2020
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*See the workgroup page for workgroup charter, members, contact information, and prior reports.

Requests for Council Action

No formal action.

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.)

Ongoing Work

Comprehensive updates on the NHD at the 1:24,000 scale continue. All 140 HU-8 subbasins in California will have been updated by the end of 2020.

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

A collaborative effort to update the Marin County portion of the NHD to a scale of approximately 1:5,000 using LiDAR elevation data collected in 2018 is progressing nicely. **Lidar-derived hydrography** delineation is being performed by Quantum Spatial Inc, and the QC review will be done in the next five weeks by the local subject matter experts at the County of Marin, the Golden Gate Parks Conservancy, State Parks, and a few others. The group is working closely with USGS to ensure compatibility with the NHD data model and geo-conflation workflow. The extent of this work is the portions of two HU 8 subbasins that fall within Marin County's boundaries.

DWR has created a new GIS dataset representing the stream segments that are designated as **Wild and Scenic Rivers** by the California Public Resources Code. An attachment to this report describes this new dataset. A web map application is in the works; until that is published, the dataset may be obtained by contacting Jane.Schafer-Kramer@water.ca.gov

Planned Future Work

Interagency agreements with the Geographical Information Center at CSU-Chico and the Center for Geospatial Science and Technology at CSU-Northridge have been amended to allow for the comprehensive updates to the NHD and the Watershed Boundary Dataset (to the 12 digit) to continue for two additional years. HU 8 subbasins that were first edited by us five years ago will be updated using recent NAIP imagery and new reference data sources. A new task in the approved contract will bring all stream gage locations that collect flow data from the California Data Exchange Center (CDEC) <https://cdec.water.ca.gov/> into the NHD with supplemental join tables to allow users to link directly from the 1:24,000 scale NHD to the CDEC website for the latest flow data.

Legislative/Policy Update

No update since last report; 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
Publish Wild & Scenic Rivers map application	November 2020

Notes

Organizations are invited to participate in California's NHD Stewardship Program by contributing reference datasets (see Solicitation Summary below) and/or becoming NHD editors. Contact Jane at jane.schafer-kramer@water.ca.gov for additional information. Any questions on NHD stewardship in California may also be directed to Jane. DWR archives 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 two to 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. <https://data.cnra.ca.gov/dataset/nhd>

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

Documents and Attachments

Statewide NHD Update Local and Regional Reference Data Solicitation Summary

Solicitation Summary:

The Geographical Information Center (GIC) and The Center for Geospatial Science and Technology (CGST) are under contract with the California Department of Water Resources (CA DWR) to bring comprehensive updates to the National Hydrography Dataset (NHD) within the state of California. In the near future, GIC and CGST will also be implementing NHD maintenance on previously updated watershed throughout the state. This effort aims at making the NHD reflect current conditions in order to make it more reliable and accurate for end-users. While this process primarily uses the latest NAIP aerial imagery, it benefits from having additional supporting hydrographic data to be used as reference in the NHD update process. Accurate and vetted regional and local reference datasets can be useful in bringing comprehensive improvements to the NHD as they can provide additional detail that is not always accessible from readily available datasets. While the use of reference data does not necessarily result in the integration/migration of the data into the NHD, it often time does allow for the transfer of local knowledge into the NHD, resulting in an even more valuable and vetted NHD. This solicitation aims to help identify and eventually, collect local and regional datasets for potential use in the California NHD update effort.

Specifications:

Hydrographic reference datasets with the following specifications are desired:

- ▯ Scale: 1:50,000 or finer
- ▯ Primary Composition/Features of Interest:
 - River/Streams
 - Lakes/Ponds/Reservoirs
 - Washes

- Swamps/Marshes
 - Canals/Ditches
 - Canals/Ditches
- ▮ Attribution Composition:
- Seasonality/Periodicity of Rivers/Streams
 - Feature Types
- ▮ Currentness: Updated within last 5 years

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