

The U.S. Geological Survey National Water Quality Network – Surface Water

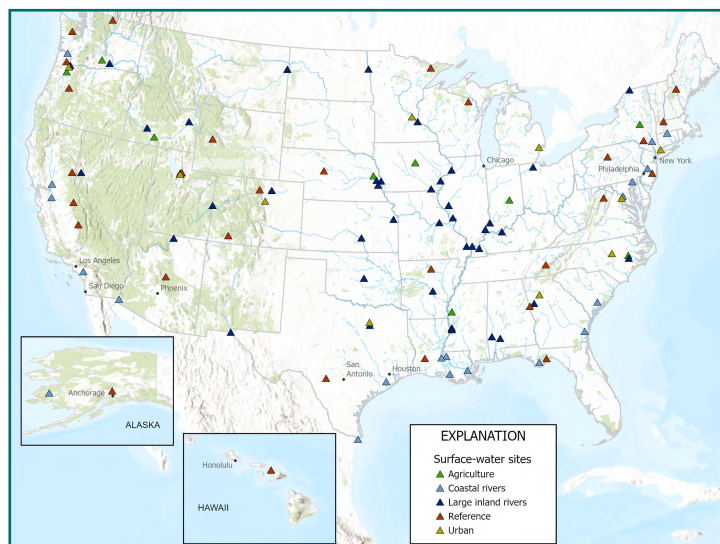
2023

The U.S. Geological Survey (USGS) National Water Quality Network for surface water (NWQN-SW) was established in 2013 to develop long-term, comparable assessments of surface-water quality in support of national, regional, state, and local needs related to water-quality management and policy. Water-quality samples are collected at each site and measured for a variety of parameters. In 2023, the NWQN-SW consisted of 109 sites, each of them paired with a streamgage, operated by the USGS or other agencies that provide continuous information on streamflow conditions. The water-quality data and the streamflow information from the NWQN-SW is then used to assess the status and trends of water-quality conditions and potential impacts on human and aquatic health.



U.S. Geological Survey (USGS) hydrologic technicians collecting samples at the Mississippi River above Vicksburg at Mile 438, MS (USGS station 322023090544500). Photograph by Scott Dennis, USGS.

Surface water-quality sites within the NWQN-SW are sampled between 12 and 22 times per year. All the samples are analyzed for physical properties, major ions, and selected trace elements and nutrients. At select sites, samples are also analyzed for suspended sediment, pesticides, and perfluoroalkyl and polyfluoroalkyl substances (PFAS).



USGS NWQN-SW network in 2023. [Surface-water sites: Sampling site types in the NWQN-SW represent the predominant land use in the watershed for agricultural, urban, and reference indicator sites and mixed land use in the watershed at coastal and large inland river integrator sites.]



U.S. Geological Survey (USGS) hydrologic technician processing samples from Delaware River at Trenton, NJ (USGS station 01463500). Photograph by Pamela Reilly, USGS.



For more information about the U.S. Geological Survey Water Monitoring Networks:

Visit <https://www.usgs.gov/mission-areas/water-resources/observing-systems-division>

Contact the [National Water Quality Network Coordinator](#)