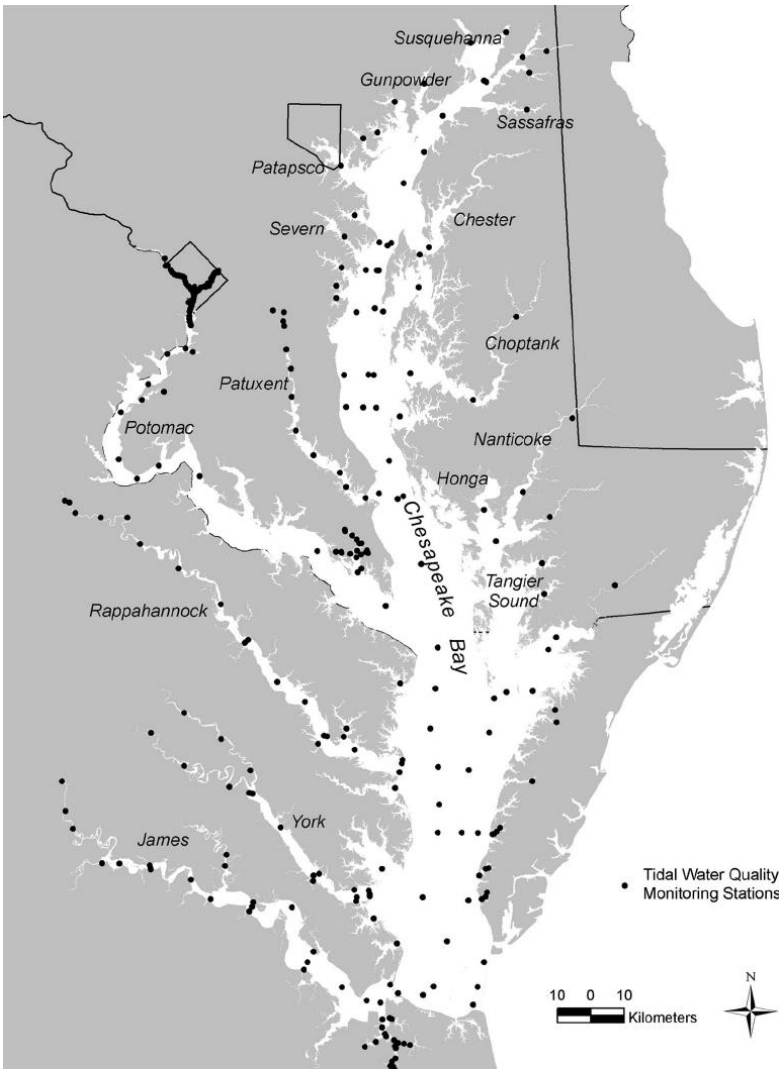
Tidal Bay and tributaries

The current tidal monitoring network was established in 1984, its first full year was 1985. There are 166 active stations sampled for physical, chemical, and biological measures throughout the water column with a consistent set of collection and analysis protocols. One or more monitoring sites are located in each of 92 Bay segments throughout mainstem Chesapeake Bay and its tidal tributaries. Stations are sampled in vertical profile 1 or 2 times per month depending on location and season. Targeted sampling occurs in shallow water in a limited number of Bay segments each year either mapping surface water quality measures or providing continuous (i.e., every 15 minutes) water quality measures at one depth for a fixed location in a season. Results are used to assess water quality standards attainment and evaluate the effectiveness of management actions through status and trends assessments for habitat conditions across space and through time. This program is supported under the federal Clean Water Act 117e program which includes 1:1 matching support from grant partners. A detailed reference of stations is found at: [Chesapeake Bay Open Data Portal : Tidal Water Quality Monitoring Stations in the Chesapeake Bay : Tidal Water Quality Monitoring Stations in the Chesapeake Bay (arcgis.com)]



Nontidal Network

Currently there are 121 nontidal network stations that have sufficient monitoring data to support load and/or trend analyses through water-year 2018. Additional stations have less than five years of monitoring data. A table is provided that defines each of the map numbers USGS Chesapeake Bay Trends Summary - Introduction.

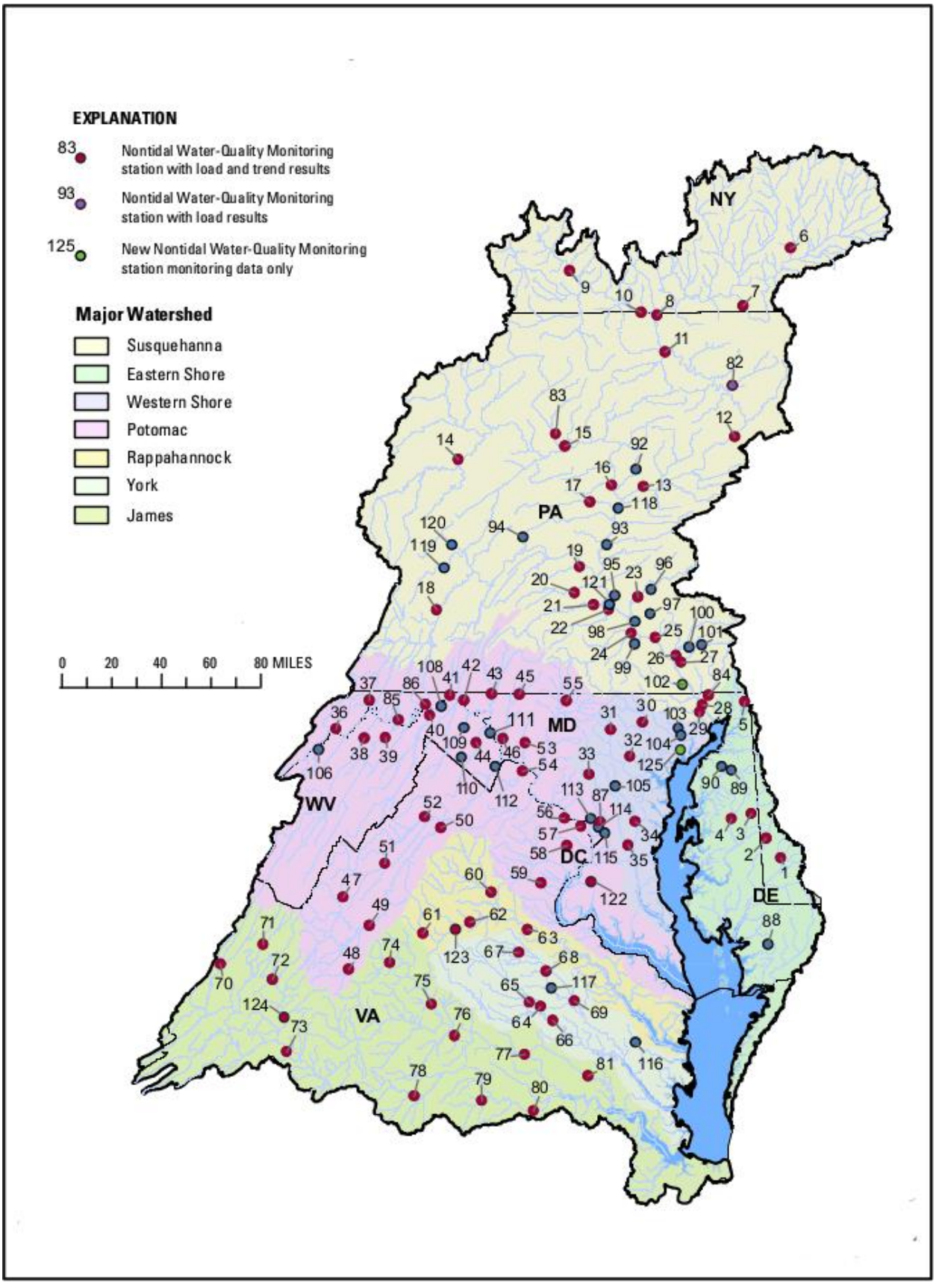
The U.S. Geological Survey (USGS), in partnership with the Chesapeake Bay Program watershed water-quality monitoring partnership, routinely reports monthly and annual constituent loads, as well as trends in load, for water-quality monitoring stations across the Chesapeake Bay watershed. These reported loads and trends are developed based on

- continuous streamflow monitoring,
- extensive water-quality sampling, and
- advanced statistical analysis.

Data from the network help scientists and managers assess water-quality conditions and long-term trends as management practices are implemented to reduce the amount of nutrients (primarily nitrogen and phosphorus) and sediment reaching the streams in the watershed and the bay. Data is also used to help measure progress toward meeting the Chesapeake Bay Total Maximum Daily Load (TMDL; see https://www.epa.gov/chesapeake-bay-tmdl). The TMDL is a "pollutant diet" designed to reduce nutrients and sediment to improve water-quality conditions for fish and underwater grasses in the bay.

The current nontidal monitoring network is sampled in a coordinated manner by the Chesapeake Bay Program partnership. Water-quality monitoring is performed by the following partners:

- US Environmental Protection Agency (US EPA)
- Maryland Department of Natural Resources (MD DNR)
- Virginia Department of Environmental Quality (VA DEQ)
- Pennsylvania Department of Environmental Protection (PA DEP)
- West Virginia Department of Environmental Protection (WV DEP)
- Delaware Department of Natural Resources and Environmental Control (DNREC)
- New York State Department of Environmental Conservation (NYSDEC)
- Susquehanna River Basin Commission (SRBC)
- District Department of the Environment (DDOE)


EXPLANATION
83 Nontidal Water-Quality Monitoring station with load and trend results
93 Nontidal Water-Quality Monitoring station with load results
125 New Nontidal Water-Quality Monitoring station monitoring data only
Major Watershed
Susquehanna
Eastern Shore
Western Shore
Potomac
Rappahannock
York
James
0 20 40 60 80 MILES
NY
PA
MD
WV
VA
DC
DE