

USGS National Streamflow Network Funding and Modernization

For many decades, the U.S. Geological Survey (USGS) Groundwater and Streamflow Information Program has provided accurate and reliable scientific information critical for Texas water management.

USGS data is used by water supply managers, water quality administrators, emergency responders, recreationists, and many others to forecast and respond to flooding, drought, and other extreme events. This data is also used in the design and operation of bridges, reservoirs, flood infrastructure, flood warning, energy generation, fisheries, and recreation. The USGS groundwater and streamflow networks also provide information critical to the function of U.S. Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), and other federal and state agencies. The information these networks provide is also essential to congressional oversight and the necessary revision of many federal laws.

Much of the nation's current streamgaging network is based on outdated technology. Some technology is as much as 70 or 80 years old. Innovation is needed to effectively measure, monitor, and understand national water resources. The Next Generation Water Observation System (NGWOS) uses innovative data collection and delivery, which will ease decision making for emergencies and daily water operations.

Adequate and Continued Funding for the National Streamflow Network. An important function of many water providers and entities is to protect their communities from flood and drought which threaten both life and property. The USGS, in partnership with state and local government, can help mitigate these natural disasters. Flooding occurs throughout Texas coastal and inland, as well as in rural and urban, parts of the state.

These entities rely on the National Streamflow Network which provides real-time measurements of the water level and flow of rivers and tributaries. This information is vital to make timely and critical water supply decisions daily. When streamgages are coupled with mapping and other data sets, they can also save lives by producing a much needed and highly effective Flood Early Warning System (FEWS).

However, the USGS Federal Priority Streamgage (FPS) Network (formerly referred to as the National Streamflow Information Program or NSIP) lacks complete funding. From 2022-2023, the USGS solicited feedback from Federal agency stakeholders that have historically benefited from the FPS network to confirm the continued utility of the network and understand how it can better serve their needs in the next decade. Feedback confirmed the criticality of the FPS network and provided guidance that USGS will use modify the original network priorities and eligibility criteria. In FY2024, to achieve the directive for the FPS specified in the 2009 Secure Water Act and install the remaining 1,318 currently inactive gages, of which 272 gages are in Texas, and flood harden the entire network, the cost would be **\$130M** with ongoing operation and maintenance being **\$87M/yr**. The FY23 Omnibus Bill included **\$25.7M** for FPS, substantially less than needed.

The USGS Cooperative Matching Funds (CMF) also needs complete funding so Texas can return to a 50-50 cost-share match. Recently, this match increased to 65% for Texas and others. This creates a much heavier burden on local resources, despite many other entities who benefit from the data. The federal cost for matching 50/50 cost-share investments in the CMF would be approximately **\$120M**. The FY2024 budget is **\$66.5M**, which is substantially less than needed.

Budget	FY 2023 Enacted	FY2024 House Mark	FY2024 Senate Mark
FPS	\$25.7	\$32.0	\$ 25.7
CMF	\$66.5	\$66.5	\$66.5
NGWOS	\$29.5	\$30.9	\$29.5

Modernization of the National Streamflow Networks and Data Delivery. The build-out of Next Generation Water Observing System (NGWOS) will focus monitoring in 10 basins nationwide to improve estimations and forecasting of the water supply in many ungauged areas. The FY2024 Omnibus Bill budget for NGWOS is **\$29.5M**. Based on the NGWOS 10-year plan and funding received in 2018 - 2024, TWCA estimates **\$42.5M** is needed in **FY2025** for NGWOS to continue to add additional planned pilot basins, operate and maintain the existing NGWOS sites and monitoring activities, and to continue the modernization of USGS data management, integration, and delivery infrastructure. In FY2024 monitoring began in the Trinity and San Jacinto river basins in Texas and is currently underfunded.

Requests of Congress:

- Support full funding for the Cooperative Matching Funds to **\$120M**. This will restore the federal cost share back to a 50/50 match not only in Texas, but nationwide, as the program was intended.
- Support full funding for USGS Federal Priority Streamgages to **\$130M** to increase the number of federal priority streamgages from 158 to 430 in Texas. Continue funding increases for the USGS Groundwater and Streamflow Information Program to support a stable federal streamgage backbone as outlined 2009 Secure Water Act.
- Support full funding for the NGWOS plan at **\$42.5M** to enhance data collection and data base modernization of the data delivery system.