

West Virginia Flood Warning and Streamgaging Network Enhancement

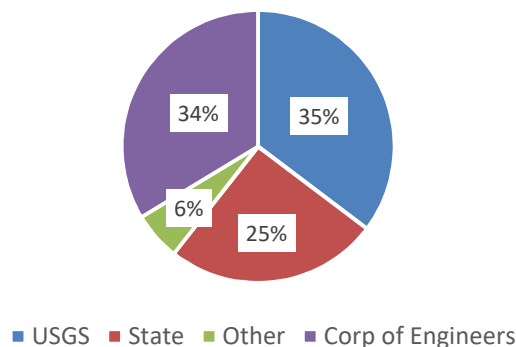
How can the state improve its flood warning system?

This proposal provides a better flood warning and prediction system through gaining operational efficiency, expanding information access and delivery, and stabilizing funding of the West Virginia streamgaging network. It is recommended that a single line item for funding of streamgages be created and changes in state code be made to allow state agencies a streamlined mechanism for entering into Cooperative Agreements with the U.S. Geological Survey (USGS) for water science related monitoring and studies.

What are the roles of streamgages?

Streamgages are a vital resource in providing information for issuing flood warnings and predictions, mapping flood plains, designing and operating water-management systems, designing highways and bridges, monitoring water-quality, and for recreational uses. The current West Virginia streamgaging network is funded by multiple partners and supports the needs of state, local, federal, private, and public users. This network consists of 149 sites and is operated by the U.S. Geological Survey at a total annual cost of \$1,644,070. The State of West Virginia currently contributes \$415,850 towards the network through eight (8) different state agencies (see Table 1).

Current Streamgaging Network



State Agency	Network Funding
Conservation Agency	\$51,000
DEP, Water and Waste Management	\$105,000
DEP, Mining and Reclamation	\$82,850
DEP, Oil and Gas	\$31,000
DEP, Abandoned Mine Lands	\$31,000
Dept. of Health	\$40,000
Dept. of Highways	\$40,000
Divn. of Natural Resources	\$35,000
Total	\$415,850

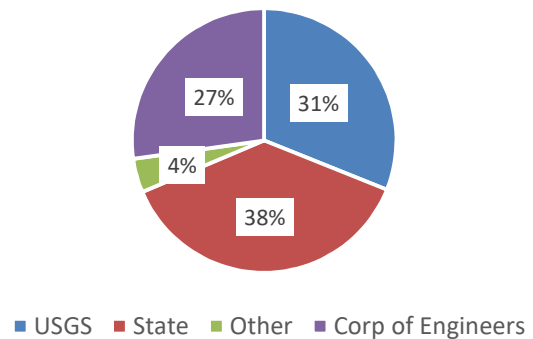
What enhancements are included?

- Addition of 39 priority sites, with 15 sites serving as NWS forecast points for better flood warning and prediction across the state.
- Uniform data delivery through the USGS National Water Information System.
- Publically accessible real-time data allowing for text and email notifications through the USGS WaterAlert System
- Consistent data quality and elimination of redundancy between USGS and state flood warning sites.

How are the costs the enhanced network shared?

The total proposed enhanced network would consist of 188 sites and be operated by the U.S. Geological Survey at a total annual cost of \$2,033,520. Cost for the initial network upgrade would be \$480,000 that would be split between the USGS and State of West Virginia. The State of West Virginia would contribute \$764,300 annually towards maintaining the network through one (1) state agency as a single line item to that agencies budget. The remainder of funding would be shared across USGS, Corps of Engineers, and other sources (see Table 2).

Proposed 2019 Streamgaging Network



Network Cost Comparison		
Funding Source	2018	2019
USGS	\$580,390	\$631,390
State	\$415,850	\$764,300
Other	\$94,200	\$84,200
Corps of Engineers	\$553,630	\$553,630
Total	\$1,644,070	\$2,033,520

West Virginia Water Gaging Council (WVWGC)

This proposal is being put forth by the WVWGC, made up of federal, state, and private industry members, tasked with ensuring availability, viability, and understanding of the state's streamgaging network.

West Virginia Flood Warning and Streamgauge Network Enhancement



WV Flood Gauge Locations

