Coalition Supporting USGS Streamgage Networks & Modernization

Congresswoman Chellie Pingree, Chair
Congressman David Joyce, Ranking Member
House Appropriations Subcommittee on Interior, Environment & Related Agencies
2363 Rayburn House Office Building
Washington, D.C. 20515

April 14, 2021

Regarding: WATER DATA & SCIENCE PROGRAM FUNDING
Interior Department Appropriations for FY-2022

Summary of Coalition's Requests for FY 2022:
Federal Priorities Streamgages is $28.7 M
Cooperative Matching Funds for Streamgage Network is $33.0 M
NGWOS and Data Delivery Modernization is $28.1 M

Dear Congresswoman Pingree and Congressman Joyce:

As leaders in the undersigned organizations, we urge your support to enable the US Geological Survey (USGS), an agency in the Department of Interior (DOI), to fully support its streamgaging networks. These vital networks, managed within the USGS Groundwater and Streamflow Information Program, provide critical, life-saving information and serve the national interest with continuous streamflow information at over 8,400 locations. Due to inadequate funding, gages supported by these necessary USGS programs are being discontinued annually, and our coalition is particularly concerned with the impact of the lack of resources over many years on the Federal Priority Streamgage network (details below). Maintaining and adding to the streamgaging networks is paramount to adequately quantify and manage the nation's critical water supplies and infrastructure. The members of our organizations rely on the streamgage data and science that USGS produces and many of us represent active, cost-share partners in funding the data collection that Congress and the federal agencies require. Data from streamgages provides necessary trend information and is the basis for understanding climate science and for making modeling and forecasted predictions about how climate change may impact our nation's total water supply and timing of its availability. Streamgage information is also critical for natural resource decisions made on U.S. Indian Reservations and for determining environmental impacts to disadvantaged communities throughout the nation.

Data and information from these valuable streamgages are utilized by emergency responders, water supply managers, water quality administrators, recreationists, consulting engineers, and many others in forecasting and response during floods, droughts, and other extreme events, design of bridges and other infrastructure, energy generation, management of federal lands, design and operation of federal reservoirs and navigation infrastructure. These networks provide critical information to other agencies of the DOI and to the U.S. Army Corps of Engineers, NOAA, FEMA, EPA, USDA, and other federal agencies, as well as providing information essential to Congressional oversight and revision of many federal laws, including the Clean Water Act, Safe Drinking Water Act, Endangered Species Act, and many interstate river basin compacts and international treaties.

Federal Priority Streamgage (FPS) Network (formerly referred to as the National Streamflow Information Program, "NSIP"): Authorized by Congress in 2009, to operate and maintain a stable "federal backbone" network of streamgages to meet five specific national needs for streamflow information at (1) interstate and international boundaries, (2) National Weather Service flood forecast sites, (3) outflows of major river basins, (4) "sentinel watersheds," needed to evaluate and anticipate the potential consequences of ongoing changes in American land use, water use, climate etc., and (5) national priority water-quality monitoring sites. Our national ability to collect sufficient water data at the needed locations to answer the necessary federal, state, tribal, local, business and NGO questions is seriously compromised by the insufficient funding for the FPS Network.

The budget for the FPS Network has been flat since 2016, yet operational costs of the network nationwide have grown by approximately 1%-3% per year since 2016 due to increases in salary, travel, equipment, and communication costs. Historically, these cost increases have been covered by 1) USGS partners, where gages are jointly funded, or 2) delaying planned network enhancements. Network enhancements include cyclical upgrades to equipment (e.g. for monitoring, telecommunication, and data transmission) to ensure sites meet requirements for successful data collection and transmission, as well as activities to flood-harden existing FPS sites. However, after 5 years of flat funding, the USGS reached a tipping point where network enhancements could no longer be delayed and operational costs continued to increase another 1%-3%. With these considerations in mind, the shortfall of approximately $0.5M between the FPS funding needed to cover costs in 2021 ($25.2M) over what was available in the enacted 2021 funding levels ($24.7M) resulted in 29 gages being discontinued. If no increase is made in the program's budget for FY2022, another 33 additional gages (62 total) will be at risk for being discontinued. Of our requested amount for the FPS, $1.25 M is based on the need to re-instate these lost gages ($20K/gage x 62 gages lost).

Also, contemporary water management issues such as ecological flows were not considered when the original national criteria were developed for the Network. Additional funding would begin to meet these needs. Today, only 25 % of the Federal Priority Streamgages are fully funded by the federal government. The USGS is unable to complete development of the Network, as Congress directed in 2009, without additional funding. Full implementation of the Federal Priority Streamgage Network is estimated at $130M. **Requested Funding Level for Federal Priorities Streamgages is $28.7 M for FY 2022 to begin to address the critical shortfall for the FPS network and to reinstate gages discontinued since 2016.**

Cooperative Matching Funds: The USGS works with over fourteen hundred partners nation-wide (federal, state, tribal, local, and NGO) using Cooperative Matching Funds to jointly support USGS streamgages, many of which meet the criteria of the FPS Network. This matching program, which began as a 50-50 program, has seen the federal cost-share contribution decrease from 50 % to less than 30 %. Given the ability for this program to enable and encourage the expansion of vitally needed streamgages on a two for one (or greater) cost basis, an increase over the FY2021 level of $29.6 M will allow for an expansion beyond the 5,273 streamgages currently covered under this program. **Requested Funding Level for Cooperative Matching Funds for Streamgage Network is $33M for FY2022.**

Related Programs within the USGS Water Mission Area-- Next Generation Water Observation System (NGWOS) and Modernization of the Networks and Data Delivery: Our coalition very much appreciates Congress' recent support of NGWOS and modernization efforts. Build-out of this innovative program will provide focused monitoring in ten basins nationwide to better calibrate modeling, thus improving the ability to estimate water supply in the nation's many ungaged areas. Additional gaging stations added in the NGWOS basins supports the goals of increasing gages nationwide under the FPS Network and through Cooperative Matching Funds. We are supportive of the modeling and predictive analytical work being developed by the USGS. A robust network of physical gages is crucial to the calibration of many models (including NOAA's National Water Model and those developed by others); however, this coalition's primary support remains directed toward adequately supporting, invigorating and expanding the real-time stream gages across the U.S. A recent quote from USGS is illustrative on the continued need for physical streamgages to calibrate innovative modeling efforts:

> *"Looking nationwide, there are about 10,000 streamgages, but that is only about three one hundredths of one percent of the Nation's stream reaches. When we talk about groundwater, it is even more sparse. As models and predictive capabilities have advanced over the years, we're starting to exceed in the modeling what we have observations to support. The density of observations starts to get too low to calibrate and validate the new high-fidelity models that we need to project what water will look like in the next few weeks to the next few years."*

Requested Funding Level for NGWOS and Data Delivery Modernization is $28.1 M to enable additional pilot basins to be added to the NGWOS program and to allow USGS to continue to modernize water data delivery systems that benefit all water users across the nation. An increase of $3.6M in FY2022 over FY2021 amount of $24.5 would allow USGS to stay on the planned NGWOS implementation track – Operation &Maintenance for the Delaware River Basin network, complete capital monitoring investments in the Upper Colorado River basin, implement about 65% of monitoring investments in Illinois River basin, begin preliminary work in Basin #4 and continue critical NWIS modernization activities

For additional, independent analysis of the USGS' needs for supplying the nation's water science, we encourage you to review the recently released "U.S. Geological Survey (USGS) Streamgaging Network: Overview and Issues for Congress" Report (R45695) by Anna Normand at the Congressional Research Service (released March 2, 2021). The report provides many more funding details and ramifications in its 28 pages, including impacts to the streamgaging program budgets in nominal dollars. The full Report can be found at: https://crsreports.congress.gov/product/pdf/R/R45695

With your help and continued support, Congress can enable the USGS to fulfill its Water Resources Mission Area goals, including working toward full implementation of the Federal Priority Streamgage Network, adequately funding the Cooperative Matching Funds for streamgaging and moving water science into the 21st century through much needed modernization upgrades. Meaningful climate change and adaptation work cannot be completed without the hydrologic knowledge gained from our Streamgage networks.

We are happy to answer your questions or provide additional information; please contact any of us or Sue Lowry at the Interstate Council on Water Policy (Sue@ICWP.org or 307-630-5804).

Organizations Signing on to FY 2022 Streamgage Support Letter (April 14, 2021)

Organization	Signor	Title
American Fisheries Society	Drue Winters	Policy Director
American Rivers	Ted Illston	Senior Director-Policy
American Society of Civil Engineers	Thomas W. Smith	Secretary & Exec. Dir.
American Water Resources Association	Dresden Farrand	Executive VP/CEO
American Water Works Association	Tracy Mehan	Exec. Dir./Gov't Affairs
American Whitewater	Mark Singleton	Executive Director
Appalachian Mountain Club	Susan Arnold	VP for Conservation
Association of American State Geologists	Rich Ortt	President
Association of California Water Agencies	David Reynolds	Director/Federal Relations
Association of Clean Water Administrators	Tom Stiles	ACWA President
Association of Fish & Wildlife Agencies	Jennifer Mock Schaeffer	Gov't Affairs Director
Association of Metropolitan Water Agencies	Diane VanDe Hei	CEO
Association of State Dam Safety Officials, Inc.	Lori C. Spragens	Executive Director
Association of State Floodplain Managers	Chad Berginnis	Executive Director
Association of State Wetland Managers	Marla J. Stalk	Executive Director
Bear River Commission	Don A. Barnett	Engineer-Manager
Big Hole Watershed Committee	Pedro Marques	Executive Director
Big Horn River Alliance	Anne Marie Emery	Executive Director
California Sportfishing Protection Alliance	Bill Jennings	Executive Director
Cascade Water Alliance	Ray Hoffman	CEO
CDM-Smith	Timothy D. Feather	Vice President
Cobb County-Marietta Water Authority	Glenn M. Page	General Manager
Colorado Lake & Reservoir Management Assn.	Kate Dunlap	President
Colorado River Salinity Control Forum	Don A. Barnett	Executive Director
Delaware River Basin Commission	Steven J. Tambini	Executive Director
Environmental Defense Fund	Steve Cochran	Assoc. VP/Coastal Resilience
Fly Fishers International	Patrick Berry	President & CEO
Freshwater Mollusk Conservation Society	Jeremy Tiemann	President
Great Lakes Observing System	Kelli Paige	CEO
Henry's Fork Foundation	Brandon Hoffner	Executive Director
Hydrological Services America	Peter Ward	General Manager
Idaho Rivers United	Nic Nelson	Executive Director
Idaho Water Users Association	Paul L. Arrington	Executive Director
Interstate Commission on the Potomac River Basin	Michael Nardolilli	Executive Director
Interstate Council on Water Policy	Kirsten Wallace	ICWP Chair
Kansas-Oklahoma Arkansas River Compact Comm.	Earnie Gilder	Federal Chair
KISTERS North America, Inc.	Becca Emery	Business Develop. Mngr.
Madison River Foundation	Jonathan Malovich	Executive Director
Metropolitan North Georgia Water Planning District	Katherine Zitsch	Director
Missouri Department of Natural Resources	Jennifer Hoggatt	Director/Water Res. Center
Minnesota Department of Natural Resources	Ann Pierce	Director/Ecol. & Water Res.
Montana DNRC	Anna Pakenham-Stevenson	Director
Montana Trout Unlimited	David Brooks	Executive Director
Montana Watershed Coordination Council	Ethan Kunard	Executive Director
North American Lake Management Society	Lisa Borre	President
Nat'l. Assoc. Flood & Stormwater Management Agencies	Susan Gilson	Executive Director
National Assoc. State Boating Law Administrators	John Fetterman	Director/Law Enforcement
National Audubon Society	Julie Hill-Gabriel	VP/Water Conservation
National Drought Mitigation Center	Dr. Mark Svoboda	Director

Organization	Signor	Title
National Ground Water Association	Terry S. Morse	CAE, CIC, CEO
National Hydrologic Warning Council	Bruce Rindahl	President
National Hydropower Association	Malcolm Woolf	President and CEO
National Society of Professional Surveyors	Curtis Sumner	Executive Director
National Water Resources Association	Ian Lyle	Executive Vice President
National Water Supply Alliance	Dave Mitamura	Executive Director
National Wildlife Federation	Melissa Samet	Sr. Water Res. Counsel
Nebraska Department of Natural Resources	Thomas E. Riley	Director
New England Interstate Water Pollution Control Comm.	Susan J. Sullivan	Executive Director
Ohio R. Valley Water Sanitation Commission	Richard Harrison	Executive Director
Oklahoma Water Resources Board	Julie Cunningham	Executive Director
Oregon Water Resources Congress	April Snell	Executive Director
Phycological Society of America	Eric W. Linton	President
Red River Compact Commission	Sue Lowry	Chairman
Republican River Compact Commission	Thomas E. Riley	Nebraska Commissioner
Rivers Alliance of Connecticut	Alicea Charamut	Executive Director
Society of Wetland Scientists	Loretta L. Battaglia	President
Susquehanna River Basin Commission	Drew Dehoff	Executive Director
The Nature Conservancy	Jimmy Hague	Sr. Water Policy Adv
Three Rivers QUEST	Melissa O'Neal	Associate Director
Tri-State Water Resource Coalition	Gail Melgren	Executive Director
Trout Unlimited	Steve Moyer	VP/Gov't Affairs
Upper Colorado River Commission	Amy Haas	Exec. Director/Secretary
Upper Mississippi River Basin Association	Kirsten Wallace	Executive Director
Upper Missouri Watershed Alliance	Sherry Meador	Board Chair
Washington State Water Resources Association	Tom Myrum	Executive Director
Water Environment Federation	Walter Marlowe	Executive Director
West Virginia Rivers Coalition	Angie Rosser	Executive Director
West Virginia Water Research Institute	Paul Ziemkiewicz	Director
Western Landowners Alliance	Lesli Allison	Executive Director
Western States Water Council	Tony Willardson	Executive Director
Wild Salmon Center	Caylin Barter	Water Policy Pgm. Mngr.
Wyoming State Engineer's Office	Greg Lanning	State Engineer
Wyoming Water Association	Jodee Pring	President
Xylem Analytics	Timothy A. Grooms	Marketing Director

Attachments: USGS listing of Threatened gages due to budget shortfalls:
https://water.usgs.gov/networks/fundingstability/
Map of locations of USGS Streamgages across the nation:
https://maps.waterdata.usgs.gov/mapper/index.html

Copy: Appropriations Subcommittee Members
Secretary of the Interior
Director, OMB
Director, USGS