Coalition Supporting USGS Streamgage Networks and Modernization

Senator Jeff Merkley, Chair
Senator Lisa Murkowski, Ranking Member
Senate Appropriations Subcommittee on Interior, Environment & Related Agencies
131 Dirksen Senate Office Building
Washington, D.C. 20510

March 31, 2022

RE: WATER DATA & SCIENCE PROGRAM FUNDING
Interior Department Appropriations for FY2023

Summary of Coalition's Requests for FY2023:
Federal Priorities Streamgages $30.0 M
Streamgage Support within the Cooperative Matching Funds Program $33.0 M
Total Cooperative Matching Funds Program $68.0 M
(Includes studies, analyses as well as Streamgage support)
NGWOS and Data Delivery Modernization $35.0 M

Dear Senator Merkley and Senator Murkowski:

As leaders of the 89 undersigned organizations, we urge your support to enable the United States Geological Survey (USGS), an agency in the Department of the Interior (DOI), to fully maintain its streamgaging networks. These vital networks, in addition to the direct water resource information gathered, also provide critical life and property saving information and serve the socio-economic well-being of our nation and national security. Due to repeated inadequate funding, gages in these national networks are being discontinued, putting our country's critical water supplies, infrastructure, environment, economy and safety at increasing risk.

Currently, 8,535 real-time streamgages collect continuous streamflow data to provide critical water availability and use data in rivers, lakes, reservoirs, canals and wetlands; data are also integral to estimating flows and water levels at ungaged locations.

Streamgage information supports critical activities across the nation, including:

- carrying out the mission and operations of federal agencies, including U.S. Army Corps of Engineers, NOAA, FEMA, EPA, USDA, Interior, NASA, DOD, Homeland Security, and other federal agencies
- forecasting extreme stream flow and water level events such as floods, droughts, and hurricanes
- tracking and forecasting climate change trends and projections,
- completing water-quality assessments of major rivers, lakes, reservoirs and estuaries, and other wetlands
- infrastructure design, operations and capacity for facilities such as roads, bridges, high-rises, dams and coastal development
- providing municipal, public and private water supply needs
- energy generation and exploration

- oversight and implementation of many federal laws including the Clean Water Act, Safe Drinking Water Act, and Endangered Species Act
- compliance and implementation of interstate and international compacts, court decrees, treaties, and other border water agreements
- determining environmental impacts to disadvantaged communities, and
- environmental mitigation including impacts to disadvantaged communities

The members of our organizations rely on these streamgaging networks to ensure our national ability to address necessary federal, state, tribal and local environmental and socio-economic issues. Insufficient funding seriously compromises this ability and our security, including the United States' ability to comply with international treaties. Resource increases needed in the Networks are detailed below.

Coalition's Requested funding level for Federal Priorities Streamgages (FPS) is $30.0 M for FY2023 to begin to address the critical shortfall for the FPS network and to reinstate gages discontinued as a result of flat funding since 2016.

Authorized by Congress in 2009 as the National Streamflow Information Program, the FPS is meant to comprise 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.

However, the FPS is anything but stable. The budget for the FPS Network has been flat since 2016, yet operational costs have grown by approximately 1-3% per year due to increases in salary, travel, equipment and communication costs. Historically, these cost increases have been covered by USGS partners, where gages are jointly funded, or by delaying planned network enhancements. Enhancements include, but are not limited to, cyclical upgrades to equipment and activities to flood-harden existing FPS sites.

Unfortunately, after multiple years of flat funding, the USGS reached a breaking point where network enhancements could no longer be delayed and operational costs continue to increase. Operations at some streamgages were discontinued and more are planned this year. Without increases to the stagnant FPS budget, gages will continue to be lost across the nation, and with those losses long-term data that cannot be re-created. We also recognize that contemporary water management issues such as ecological flows were not considered when the original national criteria were developed for the FPS Network. Additional funding would begin to meet these needs.

Today, only 26% of the network is fully funded by the federal government. The USGS is unable to complete its development as directed by Congress in 2009 without additional funding. Full implementation of the hardened network is estimated at $130 M.

President Biden's FY2023 budget was released Monday of this week as we prepared our support letter; we were pleased to see the Advances in Climate Science request in the DOI budget:

> ***Advances Climate Science.*** *The Budget invests $375 million at DOI to advance understanding of the impacts of climate change, unlock new opportunities to reduce climate risk through innovative mitigation and adaptation research, measure and monitor greenhouse gas emissions and sinks on Federal lands, and ensure that coastal, fire-prone, and other particularly vulnerable communities have accurate and accessible information to allow them to better respond to the climate crisis. The Budget also supports the development of a Federal climate data portal that would provide the public with accessible information on historical and projected climate impacts, inform decision-making, and strengthen community climate resilience.*

A robust USGS streamgaging network is critical to the implementation of the Climate Science envisioned in the President's Budget request.

Coalition's Requested funding level for Cooperative Matching Funds for Streamgage Network is $33M for FY2023. To support cooperative matching funds for streamgaging we request the total Cooperative Matching Funds program be funded at $68M.

The USGS works with more than 1,400 partners nationwide (federal, state, tribal, local and NGO) using Cooperative Matching Funds (CMF) to jointly support streamgages, many of which meet the criteria of the FPS network. This matching program began as a 50-50 share but has seen the federal cost-share contribution decrease to less than 30%.

Many of the undersigned organizations bear the burden of increased contributions as active, cost-share partners in funding the data collection that Congress and federal agencies require. This, in turn, results in less resources being available for regional and local water management needs. Our organizations rely very heavily on the streamgage data and science that USGS produces under this network.

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 $29.6M will protect the approximately 5,275 CMF-supported streamgages already in place and allow for needed expansion.

Coalition's Requested funding level for related programs within the USGS Water Mission Area – Next Generation Water Observation System (NGWOS) and modernization of the networks and data delivery – is $35M.

Our coalition appreciates Congress' recent support of the Next Generation Water Observation System (NGWOS) and efforts to modernize the networks. Build-out of this innovative program will provide focused monitoring in ten (10) Integrated Water Science (IWS) basins nationwide to better calibrate modeling, thus improving the ability to estimate water supply in our nation's many ungaged areas. The IWS basins provide innovation incubators for water observing methods and instrumentation development to sufficiently mature them such that they can be transitioned to national networks to improve efficiency, accuracy and spatial and temporal-scales of data collection – all of which can lead to more information for stakeholders. The requested funding would enable additional basins to be added to NGWOS and allow USGS to continue to enact overdue modernization of data delivery systems.

Additional NGWOS gaging stations added in the IWS 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.

Support for DOI's Strategic Performance Goals

We noted with interest the Department of the Interior's Strategic Performance Goals which address measuring the progress related to the Integrated National Water Census, delivery of modern water prediction tools and implementation of NGWOS. Without the information we garner from a robust national streamgaging program, monitoring the progress of these important programs would be extremely difficult. Our coalition members are also supportive of the recent update completed by the USGS of the "Coverage, Resolution & Representation of National Interests by the USGS Streamflow Monitoring Network"—often referred to as "the Gap Analysis". By knowing where the spatial or resolution shortfalls of greatest concern lie across the nation, additional streamgaging resources can be directed to areas in greatest need. We support the continuous update of these analyses.

Congressional Research Service Report (R45695)

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 Streamgaging Network: Overview and Issues for Congress" report (R45695) by Anna Normand at the Congressional Research Service (released March 2nd, 2021). The report (link below) provides more funding details and ramifications in its 28 pages, including impacts to the streamgaging program budgets in nominal dollars.

With your help and continued support, Congress can enable the USGS to fulfill its Water Resources Mission Area goals, including its work towards full implementation of the Federal Priority Streamgage Network, by adequately funding the Cooperative Matching Funds to move water science into the 21st century. Understanding impacts of a changing climate and necessary adaptation work cannot be completed without the hydrologic knowledge gained from robust streamgaging networks.

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

Attachments:

USGS List of Threatened Gages:
https://water.usgs.gov/networks/fundingstability/
National Water Dashboard/Map of USGS Streamgages:
https://dashboard.waterdata.usgs.gov/app/nwd/?aoi=default
"U.S. Geological Survey Streamgaging Network: Overview and Issues for Congress"
https://crsreports.congress.gov/product/pdf/R/R45695

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

Organizations Signing on to FY 2023 Streamgage Support Letter (March 31, 2022)

Organization	Signor	Title
Alabama Office of Water Resources	Brian Atkins	Division Chief
American Fisheries Society	Dr. Douglas J. Austen	Executive 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	Interim President & CEO
Association of American State Geologists	Erin Campbell	President
Association of California Water Agencies	David Reynolds	Director/Federal Relations
Association of Clean Water Administrators	Andrew Gavin	ACWA President
Association of Fish & Wildlife Agencies	Kurt Thiede	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
ear 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	Cole Blackwell	General Manager
Colorado Lake & Reservoir Management Assn.	Trea Nance	President
Colorado River Basin Salinity Control Forum	Don A. Barnett	Executive Director
Delaware River Basin Commission	Steven J. Tambini	Executive Director
Environmental Defense Fund	Steve Cochran	Assoc. VP State Affairs
Fly Fishers International	Patrick Berry	President & CEO
Freshwater Mollusk Conservation Society	Steve McMurray	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	Drew Dehoff	ICWP Chair
Kansas-Oklahoma Arkansas River Compact Comm.	Earnie Gilder	Federal Chair
Kansas Water Office	Connie Owen	Director
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	DNR Deputy Director
Minnesota Department of Natural Resources	Katie Smith	Director/Ecol. & Water Res.
Montana DNRC	Anna Pakenham-Stevenson	Admin-Water Res. Div.
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 Association of Wetland Managers	Marla J. Stelk	Executive Director
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	Abby Tinsley	Assoc. VP Policy/Gov't
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
Tacoma Water	Scott Dewhirst	Water Superintendent
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	Chuck Cullom	Exec. Director
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	Jessica Helsley	Gov't Affairs Director
Wyoming State Engineer's Office	Brandon Gebhart	State Engineer
Wyoming Water Association	Jodee Pring	President
Wyoming Water Development Office	Jason Mead	Interim Director
Xylem Analytics	Randy Hadland	Senior Manager
Yellowstone River Compact Commission	Brandon Gebhart	Commissioner