



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

August 10, 2022

OFFICE OF THE
CHIEF FINANCIAL OFFICER

The Honorable Chellie Pingree
Chair, Subcommittee on Interior,
Environment, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, D.C. 20515

The Honorable David Joyce
Ranking Member, Subcommittee on Interior,
Environment, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, D.C. 20515

The Honorable Jeff Merkley
Chair, Subcommittee on Interior,
Environment, and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

The Honorable Lisa Murkowski
Ranking Member, Subcommittee on Interior,
Environment, and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Chairs and Ranking Members:

Enclosed is the U.S. Environmental Protection Agency's Report to Congress on the Mississippi River Basin Restoration and Resilience Strategy, as required in the Joint Explanatory Statement accompanying the FY 2021 Consolidated Appropriations Act (Public Law 116-260), as described below:

"House Report 116-448: The Committee recognizes that the Mississippi River basin from Minnesota to Louisiana is a vital American waterway. From funds within the Water: Ecosystems program area, the Committee directs the Agency to establish a Mississippi River Restoration and Resiliency Strategy, in coordination with the U.S. Army Corps of Engineers, the Department of Agriculture, the Department of the Interior, the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration, as well as state, local, and tribal governments, and business and non-profit stakeholders. The strategy will inventory existing federal and state investments in the Mississippi River basin, identify gaps, and make recommendations for policy actions focused on improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters. The Committee directs the Agency to report the findings, strategy, and recommendations not later than 270 days after enactment of this Act. The Committee provides \$2,000,000 to develop this strategy."

The EPA's development of the Mississippi River restoration and resilience strategy involved coordination with the U.S. Army Corps of Engineers, the Department of Agriculture, the Department of the Interior, the Federal Emergency Management Agency, and the National Oceanic and Atmospheric Administration. Also, there were stakeholder engagements with state, local, and tribal governments that contributed to the development of the strategy for improving water quality and building environmental resiliency in the Mississippi River Basin area.

If you have further questions or would like to set up a meeting to discuss this report, please contact Ed Walsh at (202) 564-4594 or walsh.ed@epa.gov.

Sincerely,

DAVID
BLOOM

Digitally signed by
DAVID BLOOM
Date: 2022.08.10
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for Faisal Amin
Chief Financial Officer

Enclosure

Mississippi River Restoration and Resiliency Strategy

Prepared for the United States Congress by the U.S. Environmental Protection Agency in coordination with: the U.S. Army Corps of Engineers, the Department of Agriculture, the Department of the Interior, the Federal Emergency Management Agency, and the National Oceanic and Atmospheric Administration.

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Summary

In response to Congressional direction, the U.S. Environmental Protection Agency (EPA) coordinated with federal partners and key stakeholders to develop a Mississippi River Restoration and Resiliency Strategy (MRRRS or “The Strategy”). The Strategy includes: a characterization of the watershed and resource concerns; a comprehensive inventory of relevant federal programs and investments in the Mississippi River Basin (“the Basin” or Mississippi/Atchafalaya River Basin (MARB)), including identification of program funding increases resulting from enactment of the Bipartisan Infrastructure Law (BIL); and identification of gaps and recommendations. MRRRS development has facilitated enhanced communication between federal partners and stakeholders, promoted consideration of how climate change, equity, and environmental justice (EJ) concerns in the Basin could be addressed by federal programs, and serves as a point of departure for future coordinated actions to address a range of environmental, economic, and social concerns in this vital American waterway.

Background

Congressional Direction to EPA

The House Report for the Department of the Interior, Environment, and Related Agencies Appropriations Bill, 2021 ([*Consolidated Appropriations Act \[P.L. 116-260\], described in House Report 116-448*](#)) directed EPA to work with the U.S. Department of the Interior (DOI), the U.S. Army Corps of Engineers (USACE), the U.S. Department of Agriculture (USDA), the Federal Emergency Management Agency (FEMA), and the National Oceanic and Atmospheric Administration (NOAA); state, local, and tribal governments; and other key stakeholders to develop a Mississippi River Restoration and Resilience Strategy. Per HR 116-448, the strategy should: “inventory existing federal and state investments in the Mississippi River basin, identify gaps, and make recommendations for policy actions focused on improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters.”

The Mississippi River Basin

The Mississippi River originates as a tiny outlet stream from Lake Itasca in northern Minnesota. During a meandering 2,350-mile journey south to the Gulf of Mexico, the Mississippi River is joined by hundreds of tributaries, including the Ohio and Missouri rivers. Water from parts or all of 31 states¹ and two Canadian provinces drains into the Mississippi River, totaling 41% of the contiguous United States and 15% of North America with a drainage basin over 1,245,000 square miles. Along with being the largest U.S. drainage basin, the Mississippi River also creates borders for 10 states. Before reaching the Gulf, roughly 30 percent of the Mississippi River flows into its distributary, the Atchafalaya River.

The Mississippi River and its basin provide necessary resources to the United States and have helped shape American history and commerce, including tourism and the fishing industry.

The Mississippi River is one of the most heavily engineered rivers in the United States. Over time, the river’s meanders and floodplains have been modified to enable the development of millions of acres of

¹ For the purposes of MRRRS development, the federal workgroup elected to focus on the 10 mainstem states (MN, WI, IA, IL, MO, KY, TN, AR, MS, and LA) plus IN and OH.

agriculture and urbanization. Many of the original freshwater wetlands, riparian zones, and adjacent streams and tributaries along the Mississippi River have been disconnected from the river by levees and other engineering modifications. This has caused a loss of habitat for native plants and animals and has reduced the biological productivity of the entire river basin. Historically, the coastal marshes of Louisiana have provided a natural barrier against the erosion caused by fierce storms—which often come from the Gulf—by neutralizing some of the flow energy of the water. This capacity has been reduced by channelization. Over the years, use of the river for highly energy-efficient transportation of goods that are vital to the Basin’s and the nation’s economy also has increased bank erosion, turbidity, sediment resuspension, and disruption of native species habitats.

The hypoxic zone that forms in the Gulf of Mexico every summer is a result of excess nutrients from the lands drained by the Mississippi/Atchafalaya Rivers and their tributaries, as well as from the seasonal stratification (layering) of waters in the Gulf. Nutrient-laden water from the Mississippi River flows into the Gulf and stimulates an overgrowth of algae; these algae eventually die and sink to the bottom, depleting oxygen as they decompose. In the summer, strong seasonal stratification prevents the mixing of oxygen-rich surface water with oxygen-poor water on the bottom. Without mixing, oxygen in the bottom water is limited and eventually reaches levels that are insufficient to support most marine life—rendering the habitat unusable and forcing species to move to other areas to survive. In 2021, the hypoxic zone in the Gulf was found to be approximately 6,334 square miles, or equivalent to more than four million acres of habitat potentially unavailable to fish and bottom species. The average hypoxic zone, over the past five years, is 5,380 square miles. Since records began in 1985, the largest hypoxic zone measured was 8,776 square miles in 2017.²

Strategy Development

The Environmental Protection Agency (EPA) convened a workgroup of representatives from all federal agencies named in HR 116-448 to:

- 1) Build out an inventory of federal programs/investments, within the MARB, that help to improve water quality, restore habitat and natural systems, improve navigation, eliminate aquatic invasive species, and build local resilience to natural disasters.
- 2) Identify program gaps and policy recommendations.
- 3) Consider the relevancy of programs to climate change and equity concerns and goals.
- 4) Identify notable funding increases associated with the BIL that would/could amplify the impact of MARB-facing programs and activities.

Federal Family Workgroup

The Environmental Protection Agency (EPA) coordinated with the following bureaus/offices within agencies named by Congress:

- U.S. Department of Interior (DOI)

² Please see the following for more information: <https://www.epa.gov/ms-htf/northern-gulf-mexico-hypoxic-zone>.

- U.S. Geological Survey (USGS)
- U.S. Fish and Wildlife Service (USFWS), Region 3 (Great Lakes) and Region 4 (Southeast) Fish and Aquatic Conservation (FAC) programs
- U.S. Army Corps of Engineers (USACE)
 - Assistant Secretary of the Army for Civil Works
- U. S. Department of Agriculture (USDA)
 - Natural Resources Conservation Service (NRCS)
- Federal Emergency Management Agency (FEMA)
 - Region V, Mitigation Division
- U.S. Department of Commerce (National Oceanic and Atmospheric Administration-NOAA)
 - National Weather Service
 - National Ocean Service
 - Oceanic and Atmospheric Research
 - National Marine Fisheries Service

Stakeholder Engagement

A wide range of stakeholders are impacted by environmental, economic, and social conditions within the Basin. They play critical roles in maintaining and improving the overall integrity of ecosystems, infrastructure, industries, and commerce within the Basin. These include state, local, and tribal governments; businesses; and non-profit stakeholders. A complete listing of federal engagements with stakeholders is provided in Appendix A.

Inventory of Federal Programs Relevant to Mississippi River Restoration and Resiliency Strategy (MRRRS)

The Environmental Protection Agency (EPA) and its federal agency partners have compiled a comprehensive inventory of federal programs and investments, within the Basin, relevant to the MRRRS focus areas. The complete inventory of programs is provided in Appendix B.

Gaps Identification and Recommendations

The following gaps and policy recommendations were identified by the federal workgroup. Additional agency-specific gaps/recommendations were identified by EPA, FEMA, NOAA, and USGS. Parentheses following the agency-by-agency gaps/recommendations indicate the relevant MRRRS focus area(s).

All Agencies

1. Keep channels of communication open and facilitate ongoing coordination and collaboration among federal agencies and other stakeholders with interests in the Basin.
 - Development of the MRRRS brought together multiple federal partners addressing a range of resource concerns. The process improved communication and prompted consideration of how diverse programs and funding streams administered by respective agencies promote advancement of broader environmental, social, and economic goals within the Basin. The workgroup acknowledges the value in continuing coordination and collaboration both generally and on specific issues/topics as they emerge.
2. Consider federal activities in the Basin in relation to climate change, equity, and environmental justice concerns and goals.
3. Identify new approaches or improve existing methods and tools (e.g., Conservation and Stewardship Atlas³, [EJ Screen](#), [Climate and Economic Justice Screening Tool \(CEJST\)](#)) for data collection, management, and sharing and progress tracking to: better inform investment and management decisions; communicate results to stakeholders; and identify and respond to disadvantaged communities impacted by MARB resource concerns.
4. Improve monitoring networks for water quantity, quality, and availability.
 - a. Establish a cross-agency working group to consider options for a complete monitoring network that is practical and sustainable; consider the Hypoxia Task Force monitoring workgroup's assessment and recommendations.
 - b. Consider cross-agency meetings to discuss approaches to improve the assessment of long-term trends (e.g., climate change) in streamflow and water quality; understanding of different local needs, especially in underserved communities; understanding of water quantity and quality budgets; the ability to model and forecast rapidly changing water quality conditions (e.g., slugs of sediment or nutrients going downstream); understanding of status and changes in physical, chemical, and biological integrity throughout the MARB; and the ability to document the effectiveness of mitigation practices at local, regional, and national scales (i.e., best management practice effectiveness).
 - c. Consider cross-agency meetings to discuss approaches to improve engagement with and understanding of different local needs, especially in underserved communities.
5. Improve interoperability of data standards and data delivery tools across agencies.

³ A federal interagency working group is creating an American Conservation and Stewardship Atlas, which will compile baseline information about how much land and water is currently conserved and has been restored in the United States. This new tool will help track progress toward national conservation goals over the next decade.

- a. Increase cross-agency discussions about standardizing data collection and analysis protocols and the managing, storing, and transmitting of those data for public use or visualization. (MRRRS focus area: Improving Water Quality)
 - b. Expand participation in data-sharing platforms including the Water Quality Portal.⁴
- 6. Improve coordination among agencies working on restoration and resiliency activities across the MARB.
 - a. Consider establishing a mechanism to share restoration and resiliency information across agency platforms.
 - b. Consider establishing a cross-agency Restoration and Resiliency Working Group that would discuss science/adaptive management frameworks for restoration and resiliency and identify metrics and standard monitoring protocols for restoration projects/programs.

Environmental Protection Agency (EPA)

- 1. Capitalize on the successful nutrient reduction focused efforts and existing partnership of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to advance broader MRRRS goals.
 - The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (Hypoxia Task Force or HTF) was established in 1997 to understand the causes and effects of eutrophication in the Gulf of Mexico and to ameliorate the effects of hypoxia. Activities include: coordinating and supporting nutrient management activities, restoring habitats to trap and assimilate nutrients, and supporting other hypoxia-related activities in the Mississippi River and Gulf of Mexico watersheds. The [2008 Gulf Hypoxia Action Plan](#) guides HTF implementation efforts.
 - The HTF is a guiding force for collective efforts to improve water quality in the MARB. With the exception of FEMA, all agencies involved in developing the MRRRS are currently members of the HTF. The water quality focused work done by the HTF should be leveraged in any broader coordination efforts on the MRRRS.
- a. Implement a dedicated EPA grant program, using funds provided in the BIL, to support state implementation of nutrient reduction strategies within the Basin and to communicate progress to the public. (MRRRS focus area: Improving Water Quality)
 - The BIL provides a total of \$60 million in funding for actions under the Gulf Hypoxia Action Plan for fiscal years 2022-2026, including funding each year for each of the 12 states serving as members of the HTF (Arkansas, Iowa, Illinois, Indiana, Kentucky, Louisiana, Minnesota, Missouri, Mississippi, Ohio, Tennessee, and Wisconsin). EPA is

⁴ Please see the following for more information: <https://www.waterqualitydata.us/>.

developing a grant program to transmit this dedicated funding to HTF states as they work to implement strategies to reduce nutrient pollution impacting local water quality and the Gulf of Mexico.

- b. Explore opportunities to expand engagement with third parties that could provide “circuit rider” expertise, promote knowledge sharing among states, and develop and implement an effective outreach strategy for the HTF to share basin wide and state-by-state progress with the public.
- c. Explore opportunities to establish a Science Advisory Board to review progress and scientific advancements by government and academic research institutions and to make recommendations to HTF members regarding adaptive management and metric reporting.
- d. Explore opportunities for MARB states to potentially use portions of the \$11.713 billion increase in funding for the traditional Clean Water State Revolving Loan Fund (CWSRF) program provided by the BIL to implement nutrient reduction strategies.

Federal Emergency Management Agency ([FEMA](#))

1. Implementation of the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act): The STORM Act became law on January 1, 2021, and allows FEMA to provide capitalization grants to states or Tribal governments to administer revolving loan funds (RLF) for mitigation projects to increase resilience and reduce risk of harm, multi-hazard, and regional impact of hazards. Under the STORM Act, states may provide direct loans to local governments for projects and activities that mitigate the impacts of drought, intense heat, severe storms, wildfires, floods, and earthquakes, among others. In addition, activities for zoning and land-use planning changes and building code enforcement are included.

While the STORM Act is the first Hazard Mitigation Assistance (HMA) program to provide capitalization grants for the establishment of RLFs, this new source of funding will provide mitigation funding to reduce risk and increase resilience. As this is a new program, FEMA is in the very initial phase of program design, which includes stakeholder engagement.

2. Endangered Species and National Flood Insurance Program (NFIP) Minimum Standards: FEMA published a Request for Information (RFI) in the Federal Register on October 12, 2021 for information on the NFIP Floodplain Management Standards for Land Management and Use and an Assessment of the Program’s Impact on Threatened and Endangered Species and Their Habitats. FEMA provided a public comment period, through January 27, 2022, for its request for information on changes to NFIP regulations. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters).
 - o FEMA’s request for information sought public comment on opportunities to amend the NFIP’s minimum floodplain management standards to help communities become safer, stronger, and more resilient and to help the agency obtain public input on:

- How to align the minimum floodplain management standards with current understanding of flood risk and risk reduction approaches
 - Potential improvements to the standards that would help communities become safer, stronger, and more resilient
 - How the NFIP can better promote protection of and minimize any adverse impact to listed species and critical habitat.
 - There has been a tension throughout the entire history of the NFIP between efforts to maintain, improve, and build new structural flood control works (levees, floodwalls, dams) that can protect some areas at the expense of increased hazards to others, and the non-structural flood protection in the form of land use regulations, such as the NFIP's requirement to select and adopt a regulatory floodway based on a maximum surcharge of 1 foot and then prohibit development in that floodway unless it is shown to cause no increase in flood elevations up to the base flood.
3. Cost share considerations in FEMA's Hazard Mitigation Assistance grant programs: A cost share is typical for many federal grant programs, and although not a policy gap, it is worthwhile to mention it when considering equity. FEMA's federal/local cost share rate for some projects of 90/10 is lower than the typical 75/25 rate. The Flood Mitigation Assistance program offers 90/10 for Repetitive Loss properties and 100% federal share for Severe Repetitive Loss properties, given that the properties carry NFIP insurance. Local matches, especially for underserved communities—could still be a hurdle to accessing mitigation grants and something that will hopefully be addressed through technical assistance and capacity and capability building. Additionally, the Stafford Act permits the reduced cost share (90/10) for economically disadvantaged rural communities in the BRIC program. States should support underserved communities by providing the required cost match or facilitating a non-cash match to enable more communities to undertake mitigation projects, which would move them toward meeting the stated goals of this strategy development. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters)
- Lastly, the Benefit Cost Analysis (BCA) requirement may be a deterrent for communities with less capacity. Completing a BCA can be complicated, and many communities pay a contractor to develop it. A lack of available funds to develop a BCA (and no guarantee of later reimbursement even if one is developed) can prevent an applicant from moving forward. FEMA is considering ways to reduce the complexity of the application process. Another potential solution includes direct technical assistance from FEMA to the communities, which is currently offered under the BRIC program. FEMA is also continually working to simplify its BCA process and provide more online BCA guidance and resources to communities.

Department of Commerce ([National Oceanic and Atmospheric Administration - NOAA](#))

1. Significant gaps exist in including water quality modeling research and development in riverine systems for operational forecasting of real-time water quality and in the ability to link watershed and coastal models to examine downstream and coastal impacts to water quality and ecosystems. (MRRRS focus area: Improving Water Quality)
2. Suggest identifying restoration opportunities that provide habitat/wildlife benefits, as well as coastal resilience/flood risk reduction benefits. NOAA's Office for Coastal Management recommends consideration of future conditions (e.g., sea level rise, temperature increase, increasingly heavy precipitation events) in the design and maintenance of restoration projects. (MRRRS focus area: Restoring Habitat and Natural Systems)
3. Identify major stages and rapid response steps to control invasive species and detail the different roles that federal and state agencies play in response to action. (MRRRS focus area: Eliminating Aquatic Invasive Species)
4. Recommend the application of natural and nature-based features to reduce inundation risks and provide co-benefits and consideration of future conditions in land use planning/building codes, NFIP maps, flood control measures, and disaster recovery. Recommend conducting stakeholder analyses based on social science to design and implement meaningful engagement strategies with underserved communities that are at risk from natural disasters and offering assistance that provides resources directly to these communities. (MRRRS focus area: Building Local Resilience to Natural Disasters)
5. Apply natural and nature-based features to reduce inundation risks and provide co-benefits. Consider future conditions in land use planning/building codes, NFIP maps, flood control measures, and disaster recovery. (MRRRS focus area: Building Local Resilience to Natural Disasters)

U.S. Geological Survey ([USGS](#))

1. Understand data needs and potential uses for new and existing users of USGS water monitoring data.
 - a. Look into the possibility of a common datum needed to translate stage data at MARB bridge crossings and other infrastructure-related features. (MRRRS focus area: Improving Navigation)
 - b. Establish pilot watersheds to investigate new tools and equipment to expand and create efficiencies for water monitoring. (MRRRS focus area: Improving Water Quality)
2. Conduct continued research and development related to control technologies of invasive species, including invasive carps and mussels, along with quality population estimates that can help inform management decisions.

- a. Improve overall understanding of all relevant invasive species issues in the Basin.
(MRRRS focus area: Eliminating Aquatic Invasive Species)

Bipartisan Infrastructure Law (BIL) Funding for Programs Related to MARB Concerns

The Bipartisan Infrastructure Law (BIL) makes historic investments towards tackling climate change, protecting public health, creating jobs in communities across the country, and delivering a more equitable future. The BIL vastly increases funding for several programs administered by MRRRS workgroup agencies over the next five years. Some programs explicitly target MARB concerns/geographies. Others apply more broadly; however, a portion of funding is likely to benefit MARB concerns. The workgroup identified the following programs as potentially benefitting MARB concerns. The BIL provides:

EPA Water Programs

- \$1.7 billion for EPA geographic programs and \$267 million for the National Estuary Program, Gulf Hypoxia Program, and others. This includes \$12 million per year for FY22-FY26 for actions under the Gulf Hypoxia Action Plan (including funding each year for each of the 12 states serving as members of the HTF) and \$53 million per year for FY22–FY26 for the Gulf of Mexico geographic program.
- \$11.713 billion in supplemental funding for CWSRF capitalization grants. The CWSRF was created by the 1987 amendments to the Clean Water Act (CWA) as a financial assistance program for a wide range of water infrastructure projects under [33 United States Code §1383](#). States have the flexibility under the traditional CWSRF programs to fund a range of projects that address their highest priority water quality needs, including constructing municipal wastewater facilities; controlling nonpoint source pollution; building decentralized wastewater treatment systems; creating green infrastructure projects; protecting estuaries; and funding other water quality projects. As it relates to emerging contaminants, states can choose to fund projects that are CWSRF eligible whose primary purpose is to address emerging contaminants using a broad definition. The BIL mandates that 49% of funds provided through the CWSRF General Supplemental Funding must be provided as grants and forgivable loans to certain assistance recipients or project types to ensure that disadvantaged communities fully benefit from these historic investments in the water sector.

FEMA Mitigation Funding

- STORM Act:
 - \$500 million of no-year funds is appropriated to Federal Assistance (FA) over five years (\$100 million per year for FY22–FY26).
- Dam Safety and Removal Program:
 - \$800 million is allocated between Operations and Support (O&S) and FA:
 - \$67 million of two-year funds is appropriated to O&S.
 - \$733 million of no-year funds is appropriated to FA:
 - \$148 million is for dam safety program assistance grants to states pursuant to Section 8(e) of the National Dam Safety Act.
 - \$585 million is for the Rehabilitation of High Hazard Potential Dams grant program for states pursuant to Section 8A of the National Dam Safety Act:
 - \$75 million is for the removal of dams.
- BRIC:
 - \$1 billion of no-year funds is appropriated to the Disaster Relief Fund over five years (\$200 million per year for FY22–FY26).
- Flood Mitigation Assistance:
 - \$3.5 billion of no-year funds is appropriated to the National Flood Insurance Fund over five years (\$700 million per year for FY22–FY26).

U.S. Department of Commerce ([National Oceanic and Atmospheric Administration - NOAA](#))

- \$492 million for coastal and inland flood and inundation mapping and forecasting, and next-generation water modeling activities, including modernized precipitation frequency and probable maximum studies.
- \$80 million to research supercomputing infrastructure for weather and climate model development to improve drought, flood, and wildfire prediction, detection, and forecasting.

- \$25 million for the National Mesonet Program for the acquisition and use of data generated by the Upper Missouri River Basin soil moisture and snowpack monitoring network, currently being implemented by USACE.
- \$1 million for the Upper Missouri River Basin soil moisture and snowpack monitoring pilot program data value study.

U.S. Fish and Wildlife Service ([USFWS](#))

- \$199 million FY22–FY26 for the National Fish Passage Program that relies on a network of USFWS biologists and engineers, stationed throughout the country, to provide technical expertise, financial assistance, and coordination support to complete aquatic ecosystem restoration projects to restore fish passage and aquatic connectivity by removing or bypassing barriers.

U.S. Department of Agriculture ([Natural Resources Conservation Service](#))

- \$500 million available, until expended, for the Watershed and Flood Prevention Operations (WFPO) program will allow NRCS to address new, backlog, and remedial WFPO projects.
- \$118 million available, until expended, for the Watershed Rehabilitation Program (Rehab) will allow NRCS to conduct planning, design, and construction for some of the 1,159 high hazard potential dams in 38 states that have reached their design life and are eligible for rehabilitation.
- \$300 million available, until expended, for the Emergency Watershed Protection Program (EWPP) will allow NRCS to address the current backlog of EWPP funding requests and new requests for disaster assistance across the country. Communities are still recovering from western wildfires, floods, tropical storms, tornadoes, and other natural disasters.

U.S. Army Corps of Engineers ([USACE](#))

- \$808 million of Mississippi River and Tributaries (MR&T) funding is provided for projects to reduce the risk of future damage in a flood or coastal storm and to repair damage and dredge channels affected by recent floods and storms. Additional USACE authorities exist, reference Appendix B, which presents additional opportunities to restore and build on resiliency in the Mississippi River System. Available funding levels for each authority is contingent on annual appropriations.

Appendix A

Stakeholder Engagements

Date of Engagement or Correspondence	Stakeholder Group(s)
EPA	
6/12/2021	Upper Mississippi River Basin Association
7/15/2021	Upper Mississippi River Basin Association
8/25/2021	Mississippi River Network; National Great Rivers Research and Education Center
9/9/2021	Hypoxia Task Force Coordinating Committee
10/13/2021	America's Watershed Initiative
10/20/2021	America's Watershed Initiative
10/29/2021	Mississippi River Network; National Great Rivers Research and Education Center
11/29/2021	America's Watershed Initiative
DOI/USGS	
10/25/2021	Quad Agency Meeting (USGS, USACE, NOAA, FEMA)
5/25/2021	Upper Mississippi River Basin Association
2/23/2021	Upper Mississippi River Basin Association
6/8/2021	Upper Mississippi River Basin Association - Water Quality Executive Committee
9/28/2021	Upper Mississippi River Basin Association - Water Quality Task Force
8/10/2021	Upper Mississippi River Basin Association
11/17/2021	Upper Mississippi River Basin Association
8/24/2021	Mississippi Interstate Cooperative Resource Association Executive Board
3/6/2021	Lower Mississippi River Science Symposium (USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, others)
5/5/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
5/27/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
7/21/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)

Date of Engagement or Correspondence	Stakeholder Group(s)
9/7/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
9/20/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
9/29/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
10/26/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
11/1/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
11/10/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
11/30/2021	MRB Comprehensive Monitoring Technical Design Group (ad hoc group including USGS, Tulane University, the Nature Conservancy, USCOE, NOAA, Lower Mississippi River Conservation Commission, America's Watersheds Initiative, Upper Mississippi River Basin Association, State of Louisiana Coastal Protection and Restoration Authority, others)
2/2/2021	Mississippi River Cities and Towns Initiative
9/14/2021	Mississippi River Cities and Towns Initiative
3/2021	Gulf States Marine Fisheries Commission – GSMFC meetings
10/2021	Gulf States Marine Fisheries Commission – GSMFC meetings
Multiple Contacts in 2021	Mississippi Interstate Cooperative Resource Association (MICRA) – Executive Board
Multiple Contacts in 2021	Lower Mississippi River Conservation Committee (LMRCC) – EXCOM
8/23/21 – 8/24/21	Lower Mississippi River Conservation Committee (LMRCC) – Annual Meeting held virtually
Multiple Contacts	Upper Mississippi River Conservation Committee (UMRCC) – EXCOM and Technical Sections
3/15/21 – 3/19/21	Upper Mississippi River Conservation Committee (UMRCC) – Annual Meeting held virtually
Multiple Contacts in 2021	Upper Mississippi River Basin Association – Staff
2/23/2021	Upper Mississippi River Basin Association – Quarterly meeting

Date of Engagement or Correspondence	Stakeholder Group(s)
5/25/2021	Upper Mississippi River Basin Association – Quarterly meeting
8/10/2021	Upper Mississippi River Basin Association – Quarterly meeting
11/16/2021	Upper Mississippi River Basin Association – Quarterly meeting
4/20/21 – 4/22/21	Mississippi River Research Consortium
Multiple Contacts in 2021	Upper Mississippi River Restoration Program
Multiple Contacts in 2021	Fishers and Farmers Partnership – Trout Unlimited
Multiple Contacts in 2021	Driftless Area Restoration Effort – Trout Unlimited
Multiple Contacts in 2021	Reservoir Fish Habitat Partnership – NHP board and steering committee
Multiple Contacts in 2021	Great Plains Fish Habitat Partnership – NHP board and steering committee
Multiple Contacts in 2021	Midwest Glacial Lakes Fish Habitat Partnership – NHP board and steering committee
Multiple Contacts in 2021	Southeast Aquatic Resources Partnership – NHP board and steering committee
Multiple Contacts in 2021	Ohio River Basin Fish Habitat Partnership – NHP board and steering committee
2/23/2021	Ohio River Basin Alliance
Multiple Contacts in 2021	Ohio River Valley Water Sanitation Commission
Multiple Contacts in 2021	Ohio River Foundation
Multiple Contacts in 2021	Mississippi River Basin Panel on Aquatic Nuisance Species – MRBP Executive Committee
10/5/21 – 10/7/21	Mississippi River Basin Panel on Aquatic Nuisance Species – MRBP meeting
Multiple Contacts in 2021	Gulf and South Atlantic Region Panel on Aquatic Invasive Species
9/21/21 – 9/24/21	Western Regional Panel on Aquatic Nuisance Species – Annual Meeting
10/26/21 – 10/28/21	Great Lakes Regional Panel
6/14/21 – 6/16/21	Great Lakes Regional Panel
12/3/21 and 12/8/21	Northeast Regional Panel (NY)
12/18/21 – 12/19/21	Northeast Regional Panel (NY)
12/1/21 – 12/2/21	Mid-Atlantic Regional Panel (NY, PA, WV, VA, and NC)
4/28/21 – 4/29/21	Mid-Atlantic Regional Panel (NY, PA, WV, VA, and NC)
3/17/2021	National Wildlife Federation
DOI/USFWS	
March and October 2021 - GSMFC meetings	Gulf States Marine Fisheries Commission
Multiple contacts with MICRA Executive Board throughout 2021	Mississippi Interstate Cooperative Resource Association (MICRA)
Multiple contacts throughout 2021 with LMRCC EXCOM; Annual Meeting held virtually 8/23/21 – 8/24/21	Lower Mississippi River Conservation Committee (LMRCC)
Multiple contact throughout 2021 with LMRCC EXCOM and Technical Sections; Annual Meeting held virtually 3/15/21 – 3/19/21	Upper Mississippi River Conservation Committee (UMRCC)
Multiple contacts in 2021 with staff. Quarterly meetings on 2/23/21, 5/25/21, 8/10/21, 11/16/21	Upper Mississippi River Basin Association
Annual Meeting 4/20 – 4/22/21	Mississippi River Research Consortium

Date of Engagement or Correspondence	Stakeholder Group(s)
Multiple contacts throughout 2021	Upper Mississippi River Restoration Program
Multiple contacts throughout 2021 with Trout Unlimited	Fishers and Farmers Partnership
Multiple contacts throughout 2021 with Trout Unlimited	Driftless Area Restoration Effort
Multiple contacts throughout 2021 with NHP board and steering committee	Reservoir Fish Habitat Partnership
Multiple contacts throughout 2021 with NHP board and steering committee	Great Plains Fish Habitat Partnership
Multiple contacts throughout 2021 with NHP board and steering committee	Midwest Glacial Lakes Fish Habitat Partnership
Multiple contacts throughout 2021 with NHP board and steering committee	Southeast Aquatic Resources Partnership
Multiple contacts throughout 2021 with NHP board and steering committee	Ohio River Basin Fish Habitat Partnership
2/23/21	Ohio River Basin Alliance
Multiple contacts throughout 2021	Ohio River Valley Water Sanitation Commission
Multiple contacts throughout 2021	Ohio River Foundation
Multiple contacts with MRBP Executive Committee throughout 2021; MRBP meeting 10/5/21 – 10/7/21	Mississippi River Basin Panel on Aquatic Nuisance Species
Multiple contacts throughout 2021	Gulf and South Atlantic Region Panel on Aquatic Invasive Species
Annual meeting 9/21/21 – 9/24/21	Western Regional Panel on Aquatic Nuisance Species
10/26/21 – 10/28/21 and 6/14/21 – 6/16/21	Great Lakes Regional Panel
12/3/21, 12/8/21, and 5/18/21 – 5/19/21	Northeast Regional Panel (NY)
12/1/21 – 12/2/21 and 4/28/21 – 4/29/21	Mid-Atlantic Regional Panel (NY, PA, WV, VA, and NC)
3/17/21	National Wildlife Federation
DOC/NOAA	
12/2/2021	National Invasive Species Council
Email (TBD)	Aquatic Nuisance Species Task Force Director and Executive Secretariat
USDA/NRCS	
11/10/2020	Arkansas State Technical Committee
5/11/2021	Arkansas State Technical Committee
11/16/2021	Arkansas State Technical Committee
10/20/2020	Arkansas Water Quality State Tech Subcommittee Meeting
8/18/2021	Arkansas Water Quality State Tech Subcommittee Meeting
5/18/2021	East Arkansas Enterprise Community- Arkansas - Watershed Planning/Flood Mitigation Meetings
6/10/2021	Phillips County Conservation District-Arkansas - Watershed Planning/Flood Mitigation Meetings
6/10/2021	East Arkansas Enterprise Community-Arkansas - Watershed Planning/Flood Mitigation Meetings
6/23/2021	Phillips County Conservation District-Arkansas - Watershed Planning/Flood Mitigation Meetings
6/28/2021	Lee County Conservation District-Arkansas - Watershed Planning/Flood Mitigation Meetings
6/30/2021	East Arkansas Enterprise Community-Arkansas - Watershed Planning/Flood Mitigation Meetings

Date of Engagement or Correspondence	Stakeholder Group(s)
7/13/2021	Lee County Conservation District-Arkansas - Watershed Planning/Flood Mitigation Meetings
8/3/2021	St. Francis County Conservation District-Arkansas - Watershed Planning/Flood Mitigation Meetings
8/27/2021	KKAC Organization-Arkansas - Watershed Planning/Flood Mitigation Meetings
6/25/2020	Iowa State Technical Committee
7/30/2020	Interagency Flood Mitigation Committee. USACE, EPA, Iowa Homeland Security
8/6/2020	Watershed Program Quarterly Call - USACE
8/26/2020	USACE Watershed Course Inter-agency Panel - USACE
9/15/2020	Federal Partners Working Group Meeting - NRCS, USACE, EPA, FEMA
9/17/2020	River Resources Coordinating Team (RRCT) Fall 2020 Meeting - USACE
9/17/2020	Iowa State Technical Committee
9/18/2020	FEMA-NRCS Interagency Coordination and Operation (ICO) Plan - Webinar - FEMA
9/29/2020	FEMA-NRCS Interagency Coordination and Operation (ICO) Plan - Webinar - FEMA
12/17/2020	Iowa State Technical Committee
1/26/2021	River Resources Coordinating Team (RRCT) Winter 2020/2021 Meeting - USACE
2/3/2021	Iowa Flood Risk Management Team (Silver Jackets) Meeting - USACE
3/1/2021	Helping Communities with Understanding Flooding and Options - Iowa Homeland Security
3/17/2021	National Water Management Center (NWMC) meeting with Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, Oklahoma, Wisconsin - USACE
3/18/2021	Iowa State Technical Committee
4/9/2021	Upper Mississippi River Basin Association (UMBRA) Nutrient reduction strategy progress tracking workshop, session #1
4/13/2021	Upper Mississippi River Basin Association (UMBRA) Nutrient reduction strategy progress tracking workshop, session #2
4/14/2021	Beneficial Use Work Group Kick-off Meeting - USACE
4/22/2021	Silver Jacket's Webinar - FEMA's Guide to Supporting Engagement and Resiliency in Rural Communities - FEMA
5/17/2021	Spring 2021 River Resources Coordinating Team (RRCT) Meeting - USACE
6/17/2021	Iowa State Technical Committee
8/31/2021	Iowa Homeland Security Interagency Flood Mitigation Meeting - Iowa Homeland Security
9/9/2021	Federal Partners Watershed Working Group Meeting - NRCS, USACE, EPA, FEMA
11/10/2020	Illinois State Technical Committee
3/11/2021	Illinois State Technical Committee
7/8/2021	Illinois State Technical Committee

Date of Engagement or Correspondence	Stakeholder Group(s)
11/9/2021	Illinois State Technical Committee
10/26/2021	Illinois Big Rivers Workshop - Dogtooth Bend meeting
10/28/2021	Illinois Big Rivers Workshop - Dogtooth Bend meeting
11/4/2021	Illinois Big Rivers Workshop - Dogtooth Bend meeting
7/31/2021	Indiana Agriculture Nutrient Alliance
8/17/2021	Indiana Science Assessment Team
9/14/2021	Indiana Conservation Partnership
10/28/2021	Indiana Science Assessment Team
11/2/2021	Source Water Protection Partner Meeting
11/9/2021	Indiana Conservation Partnership
11/12/2021	Indiana Science Assessment Team
10/21/21	Indiana State Technical Committee
4/15/2021	Kentucky State Technical Committee
Multiple dates	Kentucky Division of Water
Multiple dates	Kentucky Division of Fish & Wildlife Resources
Multiple dates	The Nature Conservancy - KY
Multiple dates	Mississippi River Trust - KY
Multiple dates	University of Kentucky - KY
Multiple dates	Murray State University - KY
Multiple dates	Tennessee Tech University - KY
Multiple dates	Middle Tennessee University - KY
Multiple dates	University of Missouri - KY
Multiple dates	USDA - Animal and Plant Health Inspection Service (APHIS) - KY
Multiple dates	US Fish and Wildlife Services - KY
5/4/2021	Louisiana State Technical Committee
11/9/2021	Louisiana State Technical Committee
8/11/20 – 8/12/20	Upper Mississippi River Basin meetings (DNR, PCA, COE)
9/20/2020	Minnesota Watershed Subcommittee of the Minnesota State Technical Committee
10/7/2020	Minnesota State Technical Committee
1/19/2021	Minnesota Watershed Subcommittee of the Minnesota State Technical Committee
3/23/2021	Minnesota State Technical Committee
3/31/2021	Twelvemile Creek informational meeting (NRCS, SWCD, MPCA)
4/1/2021	Rat Root Watershed informational meeting (NRCS, SWCD, MPCA)
4/1/2021	Red Lake River Watershed informational meeting (NRCS, SWCD, MPCA)
4/2/2021	Wabasha Co. Minnesota SWCD Local Workgroup Meeting
4/2/2021	West Indian Creek informational meeting (NRCS, SWCD, MPCA)
4/2/2021	Dutch Creek Watershed informational meeting (NRCS, SWCD, MPCA)

Date of Engagement or Correspondence	Stakeholder Group(s)
4/5/2021	Minnesota Watershed Subcommittee of the Minnesota State Technical Committee
6/30/2021	Minnesota Watershed Subcommittee of the Minnesota State Technical Committee
7/14/2021	Minnesota State Technical Committee
8/10/21 – 8/11/21	Wabasha Co. Minnesota SWCD Local Workgroup Meeting
9/7/2021	Minnesota Watershed Subcommittee of the Minnesota State Technical Committee
3/1/2021	Missouri State Technical Committee
6/24/2021	Missouri State Technical Committee
8/25/2021	Missouri State Technical Committee
6/14/2021	MO NRCS Water Quality & Source Water Protection subcommittee of the State Technical Committee
8/14/2020	Stakeholder meeting with MO American Rural Water and partners
11/4/2020	Mississippi State Technical Committee
11/16/2021	Mississippi State Technical Committee
9/12/2020	Ohio State Technical Committee
3/11/2021	Ohio State Technical Committee
9/30/2021	Ohio State Technical Committee
2/8/2022	Tennessee State Technical Committee
5/10/2022	Tennessee State Technical Committee
8/9/2022	Tennessee State Technical Committee
7/13/2020	Wisconsin State Technical Committee (Source Water Protection Subcommittee)
7/16/2020	Wisconsin State Technical Committee
9/1/2020	Wisconsin State Technical Committee (Forestry & Wildlife Subcommittee)
10/15/2020	Wisconsin State Technical Committee
11/24/2020	Wisconsin State Technical Committee (Wildlife Subcommittee)
1/21/2021	Wisconsin State Technical Committee
2/10/2021	Wisconsin State Technical Committee (Source Water Protection Subcommittee)
3/24/2021	Wisconsin National Water Quality Initiative Partners
4/13/2021	Wisconsin State Technical Committee (Forestry Subcommittee)
4/13/2021	Wisconsin State Technical Committee (Wildlife Subcommittee)
4/15/2021	Wisconsin State Technical Committee
6/4/2021	Wisconsin National Water Quality Initiative Partners
7/14/2021	Wisconsin State Technical Committee (Wildlife Subcommittee)
7/15/2021	Wisconsin State Technical Committee
10/12/2021	Wisconsin State Technical Committee (Forestry & Wildlife Subcommittee)
10/21/2021	Wisconsin State Technical Committee

Date of Engagement or Correspondence	Stakeholder Group(s)
USACE	
12/15/2020	Upper Mississippi River Basin Association
5/21/2021	Mississippi River and Towns Initiative
11/16/2021	Upper Mississippi River Basin Association
12/9/2021	Mississippi Valley Flood Control Association

Appendix B

Mississippi River Restoration and Resiliency Strategy Federal Activities

Background: Congress directed the U.S. Environmental Protection Agency in the Joint Explanatory Statement accompanying the FY 2021 Consolidated Appropriations Act to carry out the instruction in House Report 116–448 to work with federal partners to develop a Mississippi River Restoration and Resiliency Strategy (MRRRS). The language directs EPA to provide an inventory of existing federal and state investments in the Mississippi River Basin, identify gaps, and make recommendations for policy actions (see text of Omnibus Provision below). An initial set of agency-specific federal investments has been pre-populated by EPA on individual tabs in this workbook based on available information. These entries may be retained, edited, deleted, or added to by each agency, as necessary, to provide the most relevant and updated information on programs covered by the Congressional request. In addition, a single tab is provided for all federal partners identified in the Omnibus provision to consider identifying gaps and making policy recommendations at a broad level -- e.g., improving water quality.

Excerpt from FY 2021 Omnibus Provision: *“Mississippi River Restoration and Resiliency Strategy.—The Committee recognizes that the Mississippi River Basin from Minnesota to Louisiana is a vital American waterway...the Committee directs the Agency (EPA) to establish a Mississippi River Restoration and Resiliency Strategy, in coordination with the U.S. Army Corps of Engineers, the Department of Agriculture, the Department of the Interior, the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration, as well as state, local, and tribal governments, and business and non-profit stakeholders. The strategy will inventory existing federal and state investments in the Mississippi River basin, identify gaps, and make recommendations for policy actions focused on improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters. The Committee directs the Agency to report the findings, strategy, and recommendations not later than 270 days after enactment of this Act.”*

<https://www.congress.gov/congressional-report/116th-congress/house-report/448>

INSTRUCTIONS

Identifying gaps and making recommendations for policy actions focused on improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters: Please use the "Gap&Policy ID - All Agencies" tab in this workbook (tab #2) to identify any gaps and/or policy recommendations relative to your agency's role(s) in advancing the overarching themes identified by Congress (improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters). Note: this information should be at a "high-level"; EPA is not seeking this information on a program-by-program basis.

Agency-Specific Tabs: Please review the tab for your agency/department's pre-populated information on programs and resources for relevancy and accuracy, make edits as appropriate, and complete Column D (Justice 40; see below). Please ensure the weblink for each program is correct. Next, include any additional programs/investments as they relate to “improving water quality, restoring habitat and natural systems,

INSTRUCTIONS

improving navigation, eliminating aquatic invasive species, and building local resilience to natural disasters” by completing Columns A through D for any added program/investment.

Justice 40 (Columns D & E): Section 223 of Executive Order 14008, January 27, 2021 directed CEQ, OMB, the National Climate Advisor, in consultation with the Advisory Council to "jointly publish recommendations on how certain Federal investments might be made toward a goal that 40 percent of the overall benefits flow to disadvantaged communities. The recommendations shall focus on investments in the areas of clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation and reduction of legacy pollution; and the development of critical clean water infrastructure." Under Column D, please indicate whether you anticipate that the Justice40 directive would apply to the funding provided through the program. Please provide any additional comments as appropriate in Column E.

<https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>

Gap & Policy ID - All Agencies

Gap & Policy ID - All Agencies

	EPA	FEMA	NOAA
Improving Water Quality	See narrative	N/A	NOAA OAR sees significant gaps in including water quality modeling R&D in riverine systems for operational forecasting of real-time water quality.
Restoring Habitat and Natural Systems	"	<div>1. Implementation of the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act): The STORM Act became law on January 1, 2021, and allows FEMA to provide capitalization grants to states or Tribal governments to administer revolving loan funds (RLF) for mitigation projects to increase resilience and reduce risk of harm, multi-hazard, and regional impact of hazards. Under the STORM Act, states may provide direct loans to local governments for projects and activities that mitigate the impacts of drought, intense heat, severe storms, wildfires, floods, and earthquakes, among others. In addition, activities for zoning and land-use planning changes and building code enforcement are included. While the STORM Act is the first Hazard Mitigation Assistance (HMA) program to provide capitalization grants for the establishment of RLFs, this new source of funding will provide mitigation funding to reduce risk and increase resilience. As this is a new program, FEMA is in the very initial phase of program design, which includes stakeholder engagement. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters)</div> <div>2. Endangered Species and National Flood Insurance Program (NFIP) Minimum Standards: FEMA published a Request for Information (RFI) in the Federal Register on October 12,2021 for information on the NFIP Floodplain Management Standards for Land Management and Use and an Assessment of the Program's Impact on Threatened and Endangered Species and Their Habitats. FEMA provided a public comment period, through January 27, 2022, for its request for information on changes to NFIP regulations. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters).</div> <div>o FEMA's request for information sought public comment on opportunities to amend the NFIP's minimum floodplain management standards to help communities become safer, stronger, and more resilient and to help the agency obtain public input on:<div><div>How to align the minimum floodplain management standards with current understanding of flood risk and risk reduction approaches</div><div>Potential improvements to the standards that would help communities become safer, stronger, and more resilient</div><div>How the NFIP can better promote protection of and minimize any adverse impact to listed species and critical habitat.</div></div></div> <div>o There has been a tension throughout the entire history of the NFIP between efforts to maintain, improve, and build new structural flood control works (levees, floodwalls, dams) that can protect some areas at the expense of increased hazards to others, and the non-structural flood protection in the form of land use regulations, such as the NFIP's requirement to select and adopt a regulatory floodway based on a maximum surcharge of 1 foot and then prohibit development in that floodway unless it is shown to cause no increase in flood elevations up to the base flood.</div> <div>3. Cost share considerations in FEMA's Hazard Mitigation Assistance grant programs: A cost share is typical for many federal grant programs, and although not a policy gap, it is worthwhile to mention it when considering equity. FEMA's federal/local cost share rate for some projects of 90/10 is lower than the typical 75/25 rate. The Flood Mitigation Assistance program offers 90/10 for Repetitive Loss properties and 100% federal share for Severe Repetitive Loss properties, given that the properties carry NFIP insurance. Local matches, especially for underserved communities—could still be a hurdle to accessing mitigation grants and something that will hopefully be addressed through technical assistance and capacity and capability building. Additionally, the Stafford Act permits the reduced cost share (90/10) for economically disadvantaged rural communities in the BRIC program. States should support underserved communities by providing the required cost match or facilitating a non-cash match to enable more communities to undertake mitigation projects, which would move them toward meeting the stated goals of this strategy development. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters)</div> <div>o Lastly, the Benefit Cost Analysis (BCA) requirement may be a deterrent for communities with less capacity. Completing a BCA can be complicated, and many communities pay a contractor to develop it. A lack of available funds to develop a BCA (and no guarantee of later reimbursement even if one is developed) can prevent an applicant from moving forward. FEMA is considering ways to reduce the complexity of the application process. Another potential solution includes direct technical assistance from FEMA to the communities, which is currently offered under the BRIC program. FEMA is also continually working to simplify its BCA process and provide more online BCA guidance and resources to communities.</div>	NOAA Office for Coastal Management suggests identifying restoration opportunities that provide habitat / wildlife benefits as well as coastal resilience / flood risk reduction benefits. NOAA's Office for Coastal Management recommends consideration of future conditions (e.g., sea level rise, temperature increase, increasingly heavy precipitation events) in the design and maintenance of restoration projects.
Improving Navigation	"	N/A	
Eliminating Aquatic Invasive Species	"	N/A	Identify major stages and rapid response steps to control invasive species and detail the different roles that federal and state agencies play in response to action.

Gap & Policy ID - All Agencies

	EPA	FEMA	NOAA
Building Local Resilience to Natural Disasters	"	<div><div>1. Implementation of the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act): The STORM Act became law on January 1, 2021, and allows FEMA to provide capitalization grants to states or Tribal governments to administer revolving loan funds (RLF) for mitigation projects to increase resilience and reduce risk of harm, multi-hazard, and regional impact of hazards. Under the STORM Act, states may provide direct loans to local governments for projects and activities that mitigate the impacts of drought, intense heat, severe storms, wildfires, floods, and earthquakes, among others. In addition, activities for zoning and land-use planning changes and building code enforcement are included.</div><div>While the STORM Act is the first Hazard Mitigation Assistance (HMA) program to provide capitalization grants for the establishment of RLFs, this new source of funding will provide mitigation funding to reduce risk and increase resilience. As this is a new program, FEMA is in the very initial phase of program design, which includes stakeholder engagement.</div><div>2. Endangered Species and National Flood Insurance Program (NFIP) Minimum Standards: FEMA published a Request for Information (RFI) in the Federal Register on October 12,2021 for information on the NFIP Floodplain Management Standards for Land Management and Use and an Assessment of the Program's Impact on Threatened and Endangered Species and Their Habitats. FEMA provided a public comment period, through January 27, 2022, for its request for information on changes to NFIP regulations. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters).</div><div>o FEMA's request for information sought public comment on opportunities to amend the NFIP's minimum floodplain management standards to help communities become safer, stronger, and more resilient and to help the agency obtain public input on:<div><div>▪ How to align the minimum floodplain management standards with current understanding of flood risk and risk reduction approaches</div><div>▪ Potential improvements to the standards that would help communities become safer, stronger, and more resilient</div><div>▪ How the NFIP can better promote protection of and minimize any adverse impact to listed species and critical habitat.</div></div></div><div>o There has been a tension throughout the entire history of the NFIP between efforts to maintain, improve, and build new structural flood control works (levees, floodwalls, dams) that can protect some areas at the expense of increased hazards to others, and the non-structural flood protection in the form of land use regulations, such as the NFIP's requirement to select and adopt a regulatory floodway based on a maximum surcharge of 1 foot and then prohibit development in that floodway unless it is shown to cause no increase in flood elevations up to the base flood.</div><div>3. Cost share considerations in FEMA's Hazard Mitigation Assistance grant programs: A cost share is typical for many federal grant programs, and although not a policy gap, it is worthwhile to mention it when considering equity. FEMA's federal/local cost share rate for some projects of 90/10 is lower than the typical 75/25 rate. The Flood Mitigation Assistance program offers 90/10 for Repetitive Loss properties and 100% federal share for Severe Repetitive Loss properties, given that the properties carry NFIP insurance. Local matches, especially for underserved communities—could still be a hurdle to accessing mitigation grants and something that will hopefully be addressed through technical assistance and capacity and capability building. Additionally, the Stafford Act permits the reduced cost share (90/10) for economically disadvantaged rural communities in the BRIC program. States should support underserved communities by providing the required cost match or facilitating a non-cash match to enable more communities to undertake mitigation projects, which would move them toward meeting the stated goals of this strategy development. (MRRRS focus areas: Restoring Habitat and Natural Systems and Building Local Resilience to Natural Disasters)</div><div>o Lastly, the Benefit Cost Analysis (BCA) requirement may be a deterrent for communities with less capacity. Completing a BCA can be complicated, and many communities pay a contractor to develop it. A lack of available funds to develop a BCA (and no guarantee of later reimbursement even if one is developed) can prevent an applicant from moving forward. FEMA is considering ways to reduce the complexity of the application process. Another potential solution includes direct technical assistance from FEMA to the communities, which is currently offered under the BRIC program. FEMA is also continually working to simplify its BCA process and provide more online BCA guidance and resources to communities.</div></div>	NOAA Office for Coastal Management recommends the application of natural and nature-based features to reduce inundation risks and provide co-benefits. OCM recommends consideration of future conditions in land use planning / building codes, NFIP maps, flood control measures, and disaster recovery. OCM recommends conducting stakeholder analysis based on social science to design and implement meaningful engagement strategies with underserved communities that are at risk from natural disasters and assistance that provides resources directly to these communities.

EPA: Full Data Submissions

EPA

Program Name (EPA)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Recovery Potential Screening	Recovery Potential Screening (RPS) is a systematic, comparative method for identifying differences among watersheds (or watershed-based, hydrologic units such as HUC12s) that may influence their relative likelihood to be successfully restored, protected, or managed in other ways.	https://www.epa.gov/rps	N	
Clean Water Act - Section 319	Provides grants to states, tribes, and territories for development of programs to reduce pollution from unregulated and diffuse sources (non-point sources), such as agricultural and urban runoff. Grants can be used to reduce runoff and monitor and evaluate progress and may include wetland restoration and improved stormwater management.	https://www.epa.gov/nps/319-grant-program-states-and-territories	Y	EPA sent a September 27, 2021 Memo <i>Near-term Actions to Support Environmental Justice in the Nonpoint Source Program</i> to §319 Grant recipients that encourages state actions to advance delivery of NPS benefits to disadvantaged communities and commits EPA to take a number of actions in support of this goal in FY 2022.
Climate Ready Estuaries, "Being Prepared For Climate Change: A Workbook For Developing Risk-Based Adaptation Plans"	Guide for conducting risk-based climate change vulnerability assessments and developing adaptation action plans. Workbook helps users identify, analyze, and prioritize climate change risks to what their organizations are trying to accomplish. In developing an action plan, the workbook guides users to address their most pressing risks and identify potential adaptation actions.	https://www.epa.gov/cre	N	
Climate Ready Estuaries, "Synthesis of Adaptation Options for Coastal Areas"	This guide provides a brief introduction to key physical impacts of climate change on estuaries and a review of on-the-ground adaptation options available to coastal managers to reduce their systems' vulnerability to climate change impacts.	https://www.epa.gov/cre/synthesis-adaptation-options-coastal-areas	N	
Contingency Planning and Area Contingency Planning Handbook	The 1990 Oil Pollution Act (OPA) requires preparation of response plans for certain facilities that store oil. EPA prepared the implementation regulations. Area Contingency Plans are required by the Clean Water Act with EPA as the designated lead for inland. Program information, including a reference guide to assist with development of Area Contingency Plans for environmental emergencies, is available at: http://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/area-contingency-planning	http://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/area-contingency-planning	N	
Creating Resilient Water Utilities (CRWU), Climate Resilience Evaluation and Awareness Tool (CREAT)	EPA's CRWU initiative assists water sector utilities (drinking water, wastewater, and stormwater) in becoming resilient. CREAT is a web-based risk assessment framework tool that offers climate and economic data in an easy-to-use process to identify threats and adaptation options to limit consequences. Users of CREAT can estimate risks from extreme weather, sea level rise, and shifting precipitation patterns to their assets and operations, then develop adaptation plans to prepare and respond to current and future losses.	https://creat.epa.gov/	N	

EPA: Full Data Submissions

Program Name (EPA)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Drinking Water and Clean Water State Revolving Loan Funds (DWSRF and CWSRF)	Federal/state partnership where states provide loans for wide range of water quality and public health projects, including storm water management, infrastructure improvements at wastewater and drinking water treatment facilities, water conservation & reuse, watershed protection and management, purchase land for buffers to protect drinking water sources, emergency back-up power, and planning and design. Loans may be used to increase a utility's resiliency to disasters. A 2019 MOU establishes framework for State Revolving Funds to meet cost-sharing requirements or, after disaster declarations, provide interim financing for FEMA-funded projects.	https://www.epa.gov/drinkingwatersrf	Y	OMB's <i>Interim Implementation Guidance for the Justice40 Initiative</i> identified both the DWSRF and CWSRF programs as pilot programs under the Justice40 Initiative.
Federal Funding for Water/Wastewater Utilities in National Disasters - Water/Wastewater	Web-based tool designed to assist utilities in identifying disaster and mitigation funds from multiple federal agencies. Helps utilities document damages and costs for repair and provides examples of successful applications and access to utility funding mentors.	https://www.epa.gov/fedfunds	N	
Flood Resilience: A Basic Guide for Water and Wastewater Utilities	A web-based guide to assist utilities with assessing flood threats, determining flooding vulnerability of utility assets, identifying/evaluating mitigation measures, and developing mitigation implementation plans. The guide includes training videos, worksheets, and resource aids. Developed with FEMA, state agencies, and water/wastewater utilities.	https://www.epa.gov/waterresilience	N	
Hazard Mitigation and Emergency Response for Water and Wastewater Utilities	Tools and guidance to support utility preparedness and recovery. Encourages water and wastewater utilities to work with their local mitigation planners to implement priority projects using FEMA or other source funding. Provides an overview of the mitigation process, along with practical examples of mitigation projects to address the impacts of earthquakes, tornados, floods, drought, wildfires, and power outages.	https://www.epa.gov/waterutilityresponse	N	
Healthy Watershed Assessment and Protection: Data, Tools, Methods, References	Tools for rapid, large-scale identification of landscape, biotic, hydrologic, and geomorphic conditions; chemical and physical characteristics; ecological processes, e.g., energy and material flow and natural disturbance regimes. Enables states to prioritize protection efforts. Approach also is being used to determine water security. The Watershed Index Online (WSIO) component is a data library and comparative analysis tool.	https://www.epa.gov/hwp/healthy-watersheds-assessment-overview	N	
How's My Waterway – Mobile App	A mobile web app and website that helps people find information about the condition of their local waterways using a smart phone, tablet, or desktop computer. Map option offers a view of the search area with waters color-coded by assessment status. This information can be useful in identifying flood risk management alternatives that also may benefit impaired waters or protect healthy waters.	http://www.epa.gov/waterdata/how-s-my-waterway	N	
Low Impact Development and Green Infrastructure	Provides resources and training materials to implement stormwater management practices and programs to reduce runoff and protect water quality, including design and planning guides; case studies; examples of regulatory and non-regulatory policy approaches; and descriptions of EPA's past assistance projects, archived webinars, and upcoming technical assistance and webinars.	https://www.epa.gov/nps/urban-runoff-low-impact-development	N	

EPA: Full Data Submissions

Program Name (EPA)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Regional Resilience Toolkit	From 2013 to 2018, the Federal Emergency Management Agency (FEMA) and U.S. Environmental Protection Agency (EPA) helped three California regions take large-scale action for disaster resilience. Based on these technical assistance projects, FEMA and EPA partnered with the Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG) to create a toolkit that helps regions plan for disasters by working across multiple jurisdictions and with non-governmental partners.	https://www.epa.gov/smartgrowth/regional-resilience-toolkit	N	
Smart Growth/Sustainable Communities Program	Provides technical assistance through Building Blocks Program to strengthen local capacity to implement sustainable approaches, including presentations and exercises to facilitate discussion on a priority topic, leading to agreed-upon actions. Assistance has been provided to 45 states through 150 projects. In 2016, 25 communities will receive technical assistance using one of five sustainability tools. The Flood Resilience for Riverine and Coastal Communities tool helps communities prepare for flooding or sea level rise and plan for disaster resilience. A useful report generated under this program is called Disaster Recovery and Long-Term Resilience Planning in Vermont.	https://www.epa.gov/smartgrowth	N	
Tabletop Exercise Tool for Water Systems: Emergency Preparedness, Response and Climate Resiliency	Resource to plan and facilitate tabletop exercises. Simplifies process of planning and conducting tabletop exercises and provides resources that aid in development of customized scenario-driven, discussion-based tabletop exercises. Contains 15 all-hazard scenarios. Consistent with U.S. Department of Homeland Security's Homeland Security Exercise and Evaluation Program, Water/Wastewater Agency Response Network, and Incident Command System.	https://www.epa.gov/waterresiliencetraining/develop-and-conduct-water-resilience-tabletop-exercise-water-utilities	N	
Creating Resilient Water Utilities (CRWU) Guides and Data Services	EPA's CRWU initiative assists water sector utilities (drinking water, wastewater, and stormwater) in becoming more resilient. CRWU offers a unique suite of practical and easy-to-use tools and resources to promote a clear understanding of climate science, risks, and pertinent adaptation options. CRWU resources, including Resilient Strategies Guide and GIS-based climate and hazard data services, translate complex climate projections into actionable science in understandable formats to assist in building more resilient water sector infrastructure.	https://www.epa.gov/crwu	N	
National Stormwater Calculator	EPA's National Stormwater Calculator (SWC) is a software application that estimates the annual amount of rainwater and frequency of runoff from a specific site, including capital and maintenance cost estimates. Estimates are based on local soil conditions, land cover, and historic rainfall records. Users supply information about the site's land cover and then select the low impact development (LID) controls they would like to use. The LID controls include seven green infrastructure practices. The SWC is designed to be used by anyone interested in reducing runoff from a property, including site developers, landscape architects, urban planners, and homeowners.	https://www.epa.gov/water-research/national-stormwater-calculator	N	

FEMA: Full Data Submissions

FEMA

Program Name (FEMA)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
National Flood Insurance Program (NFIP) Community Rating System (CRS)	<p>As a part of the National Flood Insurance Program (NFIP), the Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum program requirements.</p> <p>As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the Community Rating System:</p> <ol style="list-style-type: none">1. Reduce flood damage to insurable property2. Strengthen and support the insurance aspects of the National Flood Insurance Program3. Encourage a comprehensive approach to floodplain management	https://www.fema.gov/floodplain-management/community-rating-system	N	Not a funding program
Community Assistance Program - State Support Services Element (CAP-SSSE)	<p>This program funds states to provide technical assistance to communities in the NFIP and evaluate community performance in implementing NFIP floodplain management activities. CAP-SSSE helps to:</p> <ul style="list-style-type: none">• Ensure that NFIP flood loss reduction goals are met.• Build state and community floodplain management expertise and capability.• Leverage state knowledge and expertise in working with their communities. <p>The National Flood Insurance Act of 1968 prohibits provision of flood insurance in a community unless that community adopts and enforces floodplain management measures that meet/exceed minimum criteria in 44 CFR Part 60.3. Measures can take the form of floodplain management ordinances, building codes, or zoning provisions.</p>	https://www.fema.gov/community-assistance-program-state-support-services-element	Y	Grants are provided to states but NFIP program work will include requirements that address justice40 directive especially around which communities we target for outreach and technical assistance.
Flood Mitigation Assistance Grant Program	<p>Provides funding to state, local, tribal, and territorial governments so they can rebuild in a way that reduces, or mitigates, future disaster losses in their communities. Grant funding is available after a presidentially declared disaster. Funding may be available to homeowners to help rebuild their homes stronger than they were before the disaster. Flood insurance is a separate policy that can cover buildings, the contents in a building, or both.</p>	http://www.fema.gov/flood-mitigation-assistance-program	Y	
HAZUS Model	<p>HAZUS is a nationally applicable, standardized methodology for estimating potential losses from disasters including floods and hurricanes. The methodology relies on models to estimate physical, economic, and social impacts of disasters and provides users with a graphic of high-risk locations and visualization of where populations, geographic assets and resources are related to high-risk areas.</p>	https://www.fema.gov/hazus	N	
National Flood Insurance Program (NFIP)	<p>The National Flood Insurance Program (NFIP) provides flood insurance to property owners, renters, and businesses, and having this coverage helps them recover faster when floodwaters recede. The NFIP also encourages communities to adopt and enforce floodplain management regulations that help mitigate the effects of flooding.</p> <p>Flood insurance is available to anyone living in one of the 23,000 participating NFIP communities. Homes and businesses in high-risk flood areas with mortgages from government-backed lenders are required to have flood insurance.</p>	http://www.fema.gov/national-flood-insurance-program	N	Not a funding program
Building Resilient Infrastructure and Communities (BRIC)	<p>Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.</p> <p>The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.</p>	http://www.fema.gov/bric	Y	
Risk Mapping, Assessment and Planning (Risk MAP)	<p>Risk MAP supports community resilience by providing data, building partnerships, and supporting long-term hazard mitigation planning. Risk MAP's Flood Risk Products work alongside regulatory products to provide flood risk information and support community's overall floodplain management and hazard mitigation strategies.</p>	https://www.fema.gov/flood-maps/tools-resources/risk-map	N	Not a funding program

FEMA: Full Data Submissions

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Cooperating Technical Partners (CTP) Program	With over 22,000 communities in the National Flood Insurance Program (NFIP), there is a significant challenge keeping flood hazard maps current. The CTP Program is an innovative grant program designed to create partnerships between FEMA and communities participating in the NFIP. Other partners include regional and state agencies, tribes, territories, and universities that have the interest and capability to become more active participants in the FEMA flood hazard mapping program.	https://www.fema.gov/flood-maps/cooperating-technical-partners	N	
Hazard Mitigation Grant Program (HMGP)	Provides funding to state, local, tribal, and territorial governments so they can rebuild in a way that reduces, or mitigates, future disaster losses in their communities. Grant funding is available after a presidentially declared disaster. Funding may be available to homeowners to help rebuild their homes stronger than they were before the disaster. Flood insurance is a separate policy that can cover buildings, the contents in a building, or both.	http://www.fema.gov/hazard-mitigation-grant-program	Y	
Hazard Mitigation Grant Program (HMGP) - COVID	On Aug. 5, 2021, FEMA announced every state, tribe, and territory that received a major disaster declaration in response to the COVID-19 pandemic will be eligible to receive 4% of those disaster costs to invest in mitigation planning and projects that reduce risks from natural disasters.	https://www.fema.gov/disaster/coronavirus/disaster-declarations	Y	
NATIONAL HURRICANE PROGRAM (NHP)	A multi-agency Federal partnership led by FEMA along with USACE and NOAA National Hurricane Center (NHC). Mission is to provide technical assistance to local, state, Tribal, territorial, and Federal government partners. Technical assistance focuses on hurricane evacuation and response, spanning from steady-state deliberate planning to operational decision support and crisis planning when hurricanes threaten the United States and its territories.	https://www.fema.gov/emergency-managers/risk-management/hurricanes	N	Not a funding program
THE REHABILITATION OF HIGH HAZARD POTENTIAL DAMS (HHPD) GRANT PROGRAM	The High Hazard Potential Dam Grant (HHPD) awards provide technical, planning, design, and construction assistance in the form of grants for rehabilitation of eligible high hazard potential dams. A state or territory with an enacted dam safety program, the State Administrative Agency, or an equivalent state agency, is eligible for the grant.	https://www.fema.gov/emergency-managers/risk-management/dam-safety/rehabilitation-high-hazard-potential-dams	N	Grants go to states or equivalent state agency, not locals
NATIONAL DAM SAFETY PROGRAM (NDSP)	The National Dam Safety Program is a partnership of states, federal agencies, and other stakeholders to encourage and promote the establishment and maintenance of effective federal and state dam safety programs to reduce the risk to human life, property, and the environment from dam related hazards.	https://www.fema.gov/emergency-managers/risk-management/dam-safety	N	Not a funding program
HAZARD MITIGATION PLANNING	Mitigation plans are key to breaking the cycle of disaster damage, reconstruction, and repeated damage. Moreover, a FEMA-approved hazard mitigation plan is a condition for receiving certain types of nonemergency disaster assistance, including funding for mitigation projects.	https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning	N	Not a funding program
STORM Act - mitigation grants for state revolving loan programs	Safeguarding Tomorrow through Ongoing Risk Mitigation Act or the STORM Act. This bill authorizes the Federal Emergency Management Agency (FEMA) to enter into agreements with any state or Indian tribal government to make capitalization grants for the establishment of hazard mitigation revolving loan funds.	TBD	N/S	

NOAA: Full Data Submissions

NOAA

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National Sea Grant College Program	The National Sea Grant College Program (NSGCP) supports coastal and Great Lakes communities through research, extension, and education. It is a national network of 34 university-based programs partnered with NOAA through the National Sea Grant Office with the mission to enhance the practical use and conservation of coastal, marine, and Great Lakes resources in order to create a sustainable economy and environment. Every year, NSGCP offers numerous funding opportunities for researchers and students that advance goals within its national focus areas of Healthy Coastal Ecosystems, Resilient Communities & Economies, Sustainable Fisheries & Aquaculture, and Environmental Literacy & Workforce Development.	seagrant.noaa.gov	Y	Sea Grant is actively working to increase the amount of programming and funding going to disadvantaged communities, including research and community engagement focused on resilience issues, as well as workforce development and training activities. We are still developing methods and metrics for tracking these efforts. Currently, our methods for tracking are qualitative through the annual reporting completed by the 34 Sea Grant units.
Climate Program Office	The Climate Program Office (CPO) manages competitive research programs in which NOAA funds high-priority climate science, assessments, decision support research, outreach, education, and capacity-building activities designed to advance our understanding of Earth's climate system, and to foster the application of this knowledge in risk management and adaptation efforts. CPO-supported research is conducted in regions across the United States, at national and international scales, and globally.	https://cpo.noaa.gov/	Y	
Weather Program Office	The NOAA Weather Program Office (WPO) is a programmatic office located in NOAA Research that supports world-class weather research to save lives, reduce property damage, and enhance the national economy by selecting and funding research that supports and fosters collaborations within NOAA's research laboratories and the weather enterprise (i.e., NOAA, other Federal agencies and entities, state and local governments, academia, and the private sector).	https://wpo.noaa.gov/	N	
Ocean Acidification Program	NOAA's Ocean Acidification Program seeks to better prepare society to respond to changing ocean conditions and resources by expanding understanding of ocean acidification, through interdisciplinary partnerships, nationally and internationally. Ocean acidification is occurring because our ocean is absorbing carbon dioxide from the atmosphere, leading to lower pH and greater acidity. This is causing a fundamental change in the chemistry of the ocean from pole to pole.	https://oceanacidification.noaa.gov/	N	
National Integrated Drought Information System (NIDIS)	NIDIS is a multi-agency partnership that coordinates drought monitoring, forecasting, planning, and information at national, state, and local levels across the country. NIDIS supports development of a drought early warning system (DEWS) which utilizes new and existing networks of federal, tribal, state, local, and academic partners to make climate and drought science accessible and useful for decision makers and stakeholders.	www.drought.gov	Y/N/S	NIDIS is actively working with our Tribal partner communities in the Upper Missouri River Basin to ensure that the communities are represented in the goals and objectives of this study and the larger project being implemented by NOAA's National Weather Service and the U.S. Army Corps of Engineers. NIDIS leads the Upper Missouri River Basin Regional Drought Early Warning System in this region, of which the Tribal communities in the Basin are a part of. NIDIS is currently working to implement the strategic goals and objectives of the NIDIS Tribal Drought Resilience Strategy, which has a strong focus on the Upper Missouri River Basin, to enhance early warning capacity in the Tribal communities as well as long term drought resilience.

NOAA: Full Data Submissions

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NESDIS Regional Climate Services	Since 2011, NESDIS' Regional Climate Services program has partnered with, informed, and engaged many constituents within the Mississippi Basin with a focus on climate resilience. While not formerly part of the EPA program stated in the inquiry, we have instituted monthly climate summary and outlook webinars, quarterly climate summary briefs and continue to work during extreme flood and drought events to push information sought by a wide array of users.	https://www.ncei.noaa.gov/regional	Y	Our partnerships include the Mississippi River Cities and Towns Initiative (MRCTI - about 80 mayors along the River), Midwest and N. Plains Climate Ag. Hubs, National Integrated Drought Information System, American Association of State Climatologists and Regional Climate Centers.
Advanced Hydrologic Prediction Service (AHPS)	Provides enhanced hydrologic information, products, and services through the infusion of new science and technology. River flooding and drought forecasts are prepared by hydrologists and hydro-meteorologists at the NWS 13 River Forecast Centers and 122 Weather Forecast Offices. River forecasts and observations are available at the AHPS website, as well as Precipitation Analysis, Long Range Flood Risk, Probabilistic Forecasts, and Flood Inundation Mapping (FIM). These products and services are provided to assist community leaders and emergency managers in making better life- and cost-saving decisions about evacuations and movement of property before flooding occurs. Please see AHPS Users Guide for description of the suite of graphical and numerical products.	https://water.weather.gov/ahps/	N	
National Water Model	In August 2016, NOAA NWS Office of Water Prediction (OWP) released version 1.0 of the National Water Model (NWM) to enhance and expand NOAA's water flow forecasts, which previously had been available for approximately 4,000 river locations with stream gages predominantly operated by USGS. The new model expands forecasts to 2.7 million stream locations nationwide and leverages the full network of nearly 8,000 USGS stream gauges and NOAA's investment in atmospheric modeling. The NWM will provide high-resolution forecasts of soil moisture, surface runoff, snow water equivalent, and other parameters. With implementation of Version 2.0 of the NWM, forecasts are now also available for Hawaii.	https://water.noaa.gov/documents/wrn-national-water-model.pdf	N	
NWS River Forecast Centers	NWS River Forecast Centers use hydrologic models to form daily river forecasts for use in river navigation, flood prediction, agriculture, hydroelectric dam operation, and water supply planning.	http://water.weather.gov/ahps/forecasts.php	N	
Precipitation Frequency Estimates	The Office of Water Prediction (OWP) is in charge of updating precipitation frequency (PF) estimates for various areas of the U.S. as Volumes of the NOAA Atlas 14. Estimates in a variety of formats, supplementary information, and documentation are available from the Precipitation Frequency Data Server (PFDS). The PFDS has a map interface for users to point-and-click on a state to access NOAA Atlas 14 precipitation frequency estimates and associated information. Estimates and their confidence intervals are displayed directly as tables or graphs. Supplementary information, such as ASCII grids of estimates, associated temporal distributions of heavy rainfall, time series data at observation sites, cartographic maps, etc., are also available at http://hdsc.nws.noaa.gov/hdsc/pfds/index.html . Publications for states not covered by Atlas 14 can be found at http://www.nws.noaa.gov/oh/hdsc/currentpf.htm .	https://hdsc.nws.noaa.gov/hdsc/pfds/index.html	N	
Flood Inundation Mapping (FIM) User Guide	FIM User Guide	http://water.weather.gov/ahps2/inundation/inundation_mapping_user_guide.pdf	N	
Flood Map Libraries and Development Guidelines	Flood Map Libraries and Development Guidelines	https://water.weather.gov/ahps/inundation.php	N	
Historical State Flood Information	Historical State Flood Information	https://www.weather.gov/safety/flood-map	N	
NOAA NWS Flood Related Products	Links to the numerous flood related hydrology products produced by NOAA NWS. Some are to warn you of potential hazards; others are information statements to keep you up to date on changing weather and river situations.	https://www.weather.gov/safety/flood-products	N	
NOAA NWS Guide to Hydrologic Information on the Web	NOAA NWS Guide to Hydrologic Information on the Web.	https://www.weather.gov/media/water/brochures/Guide_to_Hydrologic_Information_Brochure.pdf	N	

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Coastal Flood Exposure Mapper	Provides communities with analysis of flood and storm surge hazards with more refined and accurate data (modeling systems and GIS tools) for use in disaster planning. Includes a Sea Lake and Overland Surges from Hurricanes (SLOSH) Model, which aids in evacuation planning. Contributes to prediction of storm surge heights, waves and wind, and a measure of probability of where storm surge will happen.	https://coast.noaa.gov/digitalcoast/tools/flood-exposure.html	N/S	The Coastal Flood Exposure Mapper tool allows one to map different inundation hazards, from storm surge to high tide flooding, and then overlay information on critical infrastructure and demographics.
National Coastal Resilience Fund	<p>NOAA (through OCM) and the National Fish and Wildlife Foundation jointly manage a competitive grant program that funds projects to restore, increase, and strengthen natural infrastructure-the landscapes that help absorb the impacts of storms and floods to ultimately protect coastal communities from storm and flooding impacts and enhance fish and wildlife habitat. In 2021, the program will support four categories of activities through the same funding opportunity:</p> <p>1) Community Capacity Building and Planning: Supports communities in the vital first step in moving forward with community resilience initiatives, supporting community stakeholder engagement, planning, and prioritization. Plans should identify specific efforts that, when implemented, will meet community needs to increase resilience and reduce risks from coastal storms and flooding.</p> <p>2) Project Site Assessment and Preliminary Design: Supports completion of site assessments and preliminary designs of best options to address restoration and community resilience goals. Projects under this phase will have previously identified and prioritized a community for which increased resilience and risk reduction is the goal, but for which a site or sites are still under consideration to determine the most appropriate site and project to achieve resilience goals.</p> <p>3) Project Final Design and Permitting: Supports final project design and permitting for on-the-ground projects. Funding may be used to support preparation of conceptual designs, engineering plans, continued and expanded stakeholder engagement efforts, detailed cost estimates, robust communications with permitting officials at various levels of government, and other related tasks to position projects for restoration-ready implementation.</p> <p>4) Restoration and Monitoring: Projects proposed are expected to have already been prioritized through planning processes that address coastal resilience, completed all design and engineering plans necessary for implementation, and readiness to secure all permits and other approvals necessary for implementation. Grants for larger, more comprehensive projects that are designed for greater impact - versus a 'demonstration' or 'pilot' scale project - are likely to be more competitive.</p>	https://coast.noaa.gov/resilience-grant/	N/S	<ul style="list-style-type: none">• NOAA and NFWF are working to increase equity and meet the needs of tribal, territorial, and underserved communities in this program by identifying and addressing challenges or barriers to applying, providing support for early design, and permitting work, and increasing support for initial capacity-building in communities where needed.• Congress directed at least \$3 million of these funds to support community capacity building and planning, acknowledging that many communities are still in the process of assessing their vulnerabilities and aren't yet at the design and implementation phases.
Digital Coast	A partnership-driven website that provides user-focused data, tools, trainings, and case studies designed for coastal managers and practitioners, including, but not limited to, floodplain managers, emergency managers, planners, and natural resource managers. Digital Coast Partners include: American Planning Association, Association of State Floodplain Managers, Coastal States Organization, National Association of Counties, National Estuarine Research Reserve Association, National States Geographic Information Council, NOAA OCM, The Nature Conservancy, and Urban Land Institute. Digital Coast Partners are eligible for project funds.	https://coast.noaa.gov/digitalcoast/	N/S	<ul style="list-style-type: none">• NOAA's Digital Coast provides many tools and trainings that provide technical assistance and increase capacity of coastal managers and communities. Some that may fit into Justice40 directive include:• The Social Vulnerability Index is a dataset that is useful for identifying and assisting underrepresented communities.• The Coastal Flood Exposure Mapper tool allows one to map different inundation hazards, from storm surge to high tide flooding, and then overlay information on critical infrastructure and demographics.• The Sea Level Rise Viewer and Coastal County snapshots are also easy to use tools that could be expanded to include additional national datasets on social and economic vulnerability, and OCM recently completed an equity assessment on the Sea Level Rise Viewer.

NOAA: Full Data Submissions

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National Coastal Zone Management Program	<p>Authorized by the Coastal Zone Management Act (CZMA) of 1972, the Program comprehensively addresses the nation's coastal issues through a voluntary partnership between the federal government and coastal and Great Lakes states and territories. OCM awards four types of funding to the nation's 34 state and territory coastal zone management programs to protect, restore, and responsibly develop coastal communities and resources. Funding categories include:</p> <ul style="list-style-type: none">• Administrative Grants - Funds to administer state/territorial coastal zone management programs under Section 306 of the CZMA.• Coastal Resource Improvement Program - Under Section 306A of the CZMA, state coastal zone management programs may spend up to half of their Section 306 funds on small-scale construction or land acquisition projects that enhance public access to the coast, facilitate redevelopment of urban waterfronts, or preserve and restore coastal resources.• Coastal Zone Enhancement Grants - Under Section 309 of the CZMA, OCM provides zero-match Coastal Zone Enhancement Program funds to state coastal zone management programs to enhance programs in one or more areas of national significance.• Coastal Nonpoint Pollution Control Program (Technical Assistance) Funds to help state coastal zone management programs implement Coastal Nonpoint Pollution Control Programs under Section 310 (Technical Assistance) of the CZMA.	https://coast.noaa.gov/czm/	N/S	
Nature-based Solutions for Coastal Hazards	<p>Training course that prepares coastal planners and managers for planning and implementing green or natural infrastructure projects to reduce coastal natural hazards in their communities. The course consists of two parts: 1) A 45-minute, self-guided online module covers foundational concepts prior to attending the in-person event; and 2) An in-person or virtual one-day event that allows participants to interact with their peers and local experts to develop a green infrastructure strategy.</p>	https://coast.noaa.gov/digitalcoast/training/green.html	N/S	
National Estuarine Research Reserve System	<p>The National Estuarine Research Reserve System is a network of 29 coastal sites designated to protect and study estuarine systems. Established through the Coastal Zone Management Act, the reserves represent a partnership program between NOAA and the coastal states. NOAA provides funding and national guidance, and each site is managed on a daily basis by a lead state agency or university with input from local partners.</p>	https://coast.noaa.gov/nerrs/	N/S	<ul style="list-style-type: none">• The National Estuarine Research Reserve System has a very strong focus on education and training, with an increasing emphasis on working with underserved populations.• There is a reserve in Mississippi, the Grand Bay National Estuarine Research Reserve, and Louisiana has initiated the designation process for the state's first Reserve.
Coastal Science and Monitoring Program	<p>The NOAA Coastal Science and Monitoring Program aims to conduct applied research and deliver scientific information for disaster response and management, protection, and restoration of ocean and coastal resources. Provide coastal managers information and planning tools to guide communities in managing ocean space, anticipating, and responding to climate change, and protecting fisheries and drinking water from harmful algal blooms (HABs) and other contaminants. The work conducted by the program helps with addressing and mitigating impacts of threats to coastal resources (e.g., from oil and chemical spills, marine debris, HABs, and climate change), and for developing tools for siting of wind energy and aquaculture development, green infrastructure, and habitat restoration to support the blue economy. The program is executed by the National Centers for Coastal Science (NCCOS) and the Office of Response and Restoration (OR&R). NCCOS supports NOAA's efforts associated with the Gulf Hypoxia Task Force (HTF) through the maintenance and application of the models used to set nutrient reduction targets in the Mississippi River Watershed necessary to achieve the HTF water quality goal and the production of the annual hypoxia zone size metric used to measure progress toward achieving that goal.</p>	https://coastalscience.noaa.gov/ and https://response.restoration.noaa.gov/	N/S	

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NCCOS Competitive Research Program (CRP)	The NCCOS Competitive Research Program (CRP) funds regional-scale and targeted research and assessment activities through a competitive external grant process in support of NOAA's coastal mission areas. This program maintains the only national grant programs dedicated to research topics under the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA). Grantee developed detection tools and forecast models for HABs have helped to protect public health and prevent adverse economic impacts from contaminated, unsafe drinking water supplies, and beachgoers' exposure to algal toxins. The grants also address a variety of other issues, such as hypoxia, coastal resiliency, effective ecosystem-based management, coastal flooding, and climate change impacts such as sea-level rise and ocean acidification. The Gulf of Mexico states use grantee research to assess coastal vulnerability to sea level rise and coastal storms, target land acquisition and habitat restoration projects, and to plan for building adaptation and infrastructure protection.	https://coastalscience.noaa.gov/news/celebrating-30-years-of-competitive-coastal-science-research/	N/S	
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program (RESTORE)	The mission of the National Oceanic and Atmospheric Administration's (NOAA's) RESTORE Science Program is to carry out research, observation, and monitoring to support, to the maximum extent practicable, the long-term sustainability of the ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter-fishing industry in the Gulf of Mexico. NOAA was authorized to establish and administer the Program, in consultation with the U.S. Fish and Wildlife Service, by the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies (RESTORE) of the Gulf States Act of 2012 (Public Law 112-141, Section 1604). Identified in the RESTORE Act as the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program. The main goal of the program is to support the science and coordination necessary for better understanding and management of the Gulf of Mexico ecosystem, leading to: healthy, diverse, sustainable, and resilient estuarine, coastal, and marine habitats and living resources (including wildlife and fisheries); and resilient and adaptive coastal communities.	https://restoreactscienceprogram.noaa.gov/	N/S	
RESTORE Council Monitoring and Assessment Program (CMAP)	The RESTORE Council Monitoring and Assessment Program (CMAP) uses a Monitoring Community of Practice, coordinated by the Gulf of Mexico Alliance, and a Monitoring Coordination Committee to leverage existing resources, capacities, and expertise. This project builds on existing monitoring programs, which will be coordinated into a network, to provide efficiency in monitoring and collaborative cross-program review of performance with other Gulf ecosystem recovery efforts. This Program will: 1) adopt, or construct as needed, a comprehensive inventory of existing habitat and water quality observations, monitoring, and mapping programs in the Gulf; 2) determine the minimum monitoring program attributes needed to evaluate performance of restoration projects; 3) evaluate monitoring program suitability for use by the RESTORE Council to make science-based decisions and evaluate restoration effectiveness; 4) combine metadata from suitable existing programs into searchable databases for the RESTORE Council and the Gulf of Mexico monitoring community; 5) examine the inventory to determine what data are missing (i.e. identify information gaps) that would be required for the RESTORE Council; 6) catalog existing assessments of habitat and water quality conditions; and 7) provide recommendations to the RESTORE Council to supplement and refine the existing monitoring programs to inform the information gaps where possible.	https://coastalscience.noaa.gov/project/restore-council-monitoring-and-assessment-program-building-a-comprehensive-monitoring-network/	N/S	
Electronic navigational charts	Electronic Navigational Charts (ENC) are vector data sets that support all types of marine navigation. NOAA ENCs help provide real-time ship positioning, as well as collision and grounding avoidance. NOAA ENCs comply with the International Hydrographic Organization ENC Product Specification. ENCs are produced around the world by many different countries' national hydrographic or charting agencies. NOAA maintains more than 1,000 NOAA ENC® datasets over U.S. coastal waters and the Great Lakes. The U.S. Army Corps of Engineers produces a similar product, called Inland ENC (IENC) for many U.S. rivers. NOAA ENCs go to Baton Rouge.	https://nauticalcharts.noaa.gov/	N/S	
Precision Marine Navigation	NOAA's Precision Marine Navigation program aims to seamlessly integrate high-resolution bathymetry, high accuracy positioning and shoreline data with forecast data—such as water levels, currents, salinity, temperature, waves, and weather forecasts—to provide our data in a format that could be easily accessed and integrated into maritime portable pilot units or decision support tools. As a result, mariners will be better equipped to make critical navigation decisions.	https://nauticalcharts.noaa.gov/learn/precision-navigation.html#:~:text=Precision marine navigation is the,narrow channels C or other hazards	N/S	

NOAA: Full Data Submissions

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Navigation Managers	NOAA's navigation managers, stationed strategically in port areas along U.S. coasts and Great Lakes, work directly with pilots, mariners, port authorities, and recreational boaters. They help identify navigational challenges facing the marine transportation system and provide the resources and services that promote safe and efficient navigation.	https://nauticalcharts.noaa.gov/customer-service/regional-managers/index.html	N/S	
Navigation Response Teams	Coast Survey's mobile navigation response teams (NRT) conduct hydrographic surveys to update NOAA's suite of nautical charts. The teams are strategically located around the country and remain on call to respond to emergencies speeding the resumption of shipping after storms and protecting life and property from underwater dangers to navigation.	https://nauticalcharts.noaa.gov/customer-service/navigation-response.html	N/S	
Coastal Modeling	Office of Coast Survey develops, tests, and evaluates numerical oceanographic modeling systems to support coastal resilience, safe and efficient marine navigation, provide forecast guidance for coastal inundation assessment, and support software to integrate bathymetric, topographic elevation and tide data. Models include Operational Forecast Models, Vdatum, and storm surge modeling.	https://nauticalcharts.noaa.gov/learn/hydrodynamic-model-development.html	N/S	
National Spatial Reference System (Includes Gravity Program and NOAA CORS Network)	The NSRS, the common reference framework that defines latitude, longitude, height, scale, and gravity for all geospatial data and positioning activities in the Nation is undergoing a modernization effort to improve its accuracy and accessibility in remote regions of the country. This modernization, led by NGS, will reduce height errors in the current reference frame to just under an inch, correcting the foundational height data which applications rely on for accurate positioning. The NSRS's improved accuracy and accessibility will enable stakeholders, including emergency managers, to better plan for rising sea levels with improved floodplain maps, inundation models, and evacuation routes for coastal disaster preparedness. The NSRS plays a critical role in seamlessly aligning our Nation's significant geospatial investments in mapping and resilient infrastructure.	https://oceanservice.noaa.gov/facts/datum.html	N	
Coastal Mapping Program	NGS's Coastal Mapping Program maps the shoreline with tide coordinated, geo-referenced data from aerial photographs, high-resolution satellite imagery, and aerial topobathy lidar, defining the Nation's 95,000-mile shoreline and near-shore bathymetry. These data are essential for nautical charts, the determination of U.S. maritime boundaries such as the Exclusive Economic Zone and are also used in applications such as inundation modeling, benthic habitat mapping, marine debris detection, and coastal zone management. https://oceanservice.noaa.gov/geodesy/aerialphotos/	https://www.ngs.noaa.gov/RSD/cmp.shtml	N	
National Water Level Observation Network (NWLON)	CO-OPS maintains the National Water Level Observation Network (NWLON), an observation network with more than 200 permanent water level stations on the coasts and Great Lakes. This system allows NOAA to provide the official tidal predictions for the nation. Accurate water level data is critical for safe and efficient marine navigation and for the protection of infrastructure along the coast. The NWLON also provides the national standards for tide and water level reference datums used for nautical charting, coastal engineering, international treaty regulation, and boundary determination.	https://tidesandcurrents.noaa.gov/water_level_info.html	N	
Physical Oceanographic Real Time System (PORTS)	NOAA's PORTS® cost-share program with local partners that improves the safety and efficiency of maritime commerce. PORTS® collects and disseminates real-time observations of water levels, currents, salinity, bridge air gap and meteorological parameters (e.g., winds, atmospheric pressure, air, and water temperatures) that mariners need to navigate safely. The objectives of the PORTS® program are to promote navigation safety, improve the efficiency of U.S. ports and harbors, and ensure the protection of coastal marine resources. That said, PORTS observations have utility beyond navigation, for environmental protection and coastal resilience.	https://tidesandcurrents.noaa.gov/ports_info.html	N	
National Current Observation Program (NCOP)	The Center for Operational Oceanographic Products and Services (CO-OPS) manages the National Current Observation Program (NCOP) to collect, analyze, and distribute observations and predictions of currents. The program's goals are to ensure safe, efficient, and environmentally sound maritime commerce, and to support environmental needs such as HAZMAT response. The principal product generated by this program is information used to maintain and update the Tidal Current Tables.	https://tidesandcurrents.noaa.gov/ncop.html	N	

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National Operational Coastal Modeling Program (NOCMP)	The primary objective of the National Operational Coastal Modeling Program (NOCMP) is to develop a national network of Operational Nowcast and Forecast Hydrodynamic Model Systems (called OFS) to support NOAA's mission goals and priorities. An OFS consists of the automated integration of observing system data streams, hydrodynamic model predictions, product dissemination and continuous quality-control monitoring. State-of-the-art numerical hydrodynamic models driven by real-time data and model forecast guidance will form the core of these end-to-end systems. The OFS will perform nowcast and short-term (0 hr. - 48 hr.) forecast predictions of pertinent parameters (e.g., water-levels, currents, salinity, temperature, waves) and disseminate them to users. OFS will be implemented in critical ports, harbors, estuaries, Great Lakes, and coastal waters of the United States, and will join NOS' operational oceanographic capabilities to form a national backbone of real-time data, tidal predictions, data management and operational modeling. This backbone will serve a broad base of users who rely on NOS products for informed decision-making. In addition to improving the safety and efficiency of commercial shipping and recreational boating, other direct applications of this information include: improving national security; proactively preventing, mitigating and responding to natural hazards and oil spills; facilitating safe, efficient and quality recreational use of coastal waters; aiding search-and-rescue, forensic and law-enforcement operations; improving coastal storm warnings; facilitating coastal management and stewardship; as well as providing research opportunities. The NOCMP supports NOAA's mission and is consistent with the missions, visions, and ongoing collaborations of NOS' Office of Coast Survey and its Center for Operational Products and Services. In addition, these goals complement proposed components of the Global Integrated Ocean Observing System (IOOS) and the identified role of a national backbone of observations, data management and modeling (Ocean.US, 2002). NOS also has been a leader in the research, development, and implementation of OFS as they pertain to NOS' Physical Oceanographic Real-time Systems (PORTS®).	https://tidesandcurrents.noaa.gov/nocmp.html	N	
Coastal Inundation Dashboard	Coastal Inundation Dashboard provides real-time water levels, 48-hour forecasts of water levels and historic flooding information at a majority of coastal water level stations operated by the National Ocean Service (NOS) Center for Operational Oceanographic Products & Services (CO-OPS). The product features both a map-based view where users can see which stations across the U.S. may be flooding, and a more detailed station view where real-time water levels and historical data for a specific location are highlighted. Emergency managers and other coastal decision makers can use this information to understand and prepare for the impacts of coastal flooding. The coastal planning community can use this information to gain a better understanding of past peak water level events and the increased frequency of days when flooding is possible as sea levels change.	https://tidesandcurrents.noaa.gov/inundationdb_info.html	N	
Sea Level and Coastal Flooding Information	NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) is the nation's source for coastal inundation data and sea level trends through its network of long-term water level gauges. With this data and online tools and analysis, CO-OPS enables coastal communities to better plan for and mitigate risk from changing ocean conditions. For many coastal communities, the impacts of sea level change are here now, not years away. CO-OPS understands that coastal cities are already dealing with higher tides, more frequent tidal flooding, and more extreme water levels during storms. CO-OPS provides a suite of tools, including critical real-time information and outlooks that communities can use to prepare for these coastal hazards.	https://tidesandcurrents.noaa.gov/sea_level_info.html	N/S	
Office of Response and Restoration	NOAA's Office of Response and Restoration (OR&R) is a center of expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, releases from hazardous waste sites, and marine debris.	https://response.restoration.noaa.gov	N	

USACE: Full Data Submissions

USACE

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Specifically Authorized Projects (Investigations)	Requires specific authorization from Congress to study, design, and construct major flood risk management projects or other water-related studies/projects for ecosystem restoration, navigation and improvements, and watershed assessment. Generally, for large scale projects that cost more than \$10 million.	https://planning.erdc.dren.mil/toolbox/library/FactSheets/Project DevtFS Nov2017.pdf	Yes	Given the foci recommendations in the Justice40 directive, it's assumed this E.O. will apply to project recommendations made as part of this restoration strategy.
Continuing Authorities Program	Authorizes feasibility study and construction for relatively small projects; usually requires no further congressional authorization to proceed to construction. *Emergency Stream Bank and Shoreline Protection (Section 14, Flood Control Act of 1946, as amended) - Allows emergency stream bank and shoreline protection to prevent damage to public facilities, such as roads, bridges, hospitals, schools, and water/sewage treatment plants. Maximum federal expenditures limited to \$5 million. *Snagging and Clearing (Section 208, Flood Control Act of 1954, as amended, originally Section 2, Flood Control Act of August 28, 1937). Authorized for flood risk management. Maximum federal expenditures limited to \$750,000. *Small Beach Erosion Control (Section 103, River and Harbor Act of 1962, as amended) - Provides protection or restoration of public shorelines by construction of revetments, groins, and jetties. Maximum federal expenditures limited to \$10 million. *Flood Damage Reduction (Section 205, Flood Control Act of 1948, as amended) - Provides for construction/improvement of flood risk reduction works (levees, channels, and dams) for local flood protection. Non-structural alternatives may include measures such as installation of flood warning systems, raising and/or floodproofing structures, and relocation of flood-prone facilities. Maximum federal expenditures limited to \$10 million.	https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/	Yes	
Upper Mississippi River Restoration (UMRR) Program	(Upper Mississippi River Management Act of 1986, Section 1103 of the Water Resources Development Act* of 1986 (33 U.S.C. 652), as amended in WRDAs 1990 (P.L. 101-640 §405), 1992 (P.L. 102-580, §107), 1999 (P.L.106-53, §509 and the Water Resources Development Technical Corrections of 1999, P.L. 106-109, §2), 2007 (P.L.110-114, §3177), and 2020 (P.L. 116-260, §307)) Purpose is to ensure the coordinated development and enhancement of the Upper Mississippi River system.	https://www.mvr.usace.army.mil/Missions/Environmental-Stewardship/Upper-Mississippi-River-Restoration/#:~:text=Upper%20Mississippi%20River%20Restoration%20Program,system%20in%20the%20United%20States.	Yes	
Navigation and Ecosystem Sustainability Program (NESP)	Long-term program of navigation improvements and ecological restoration for the Upper Mississippi River System (UMRS) that will be implemented incrementally over a 50-year period through integrated, adaptive management.	https://www.mvr.usace.army.mil/Missions/Navigation/NESP/	Yes	
Watershed Studies	(Section 729 of Water Resources Development Act of 1986, as amended) - Allows USACE to study water resources needs of river basins and regions in the United States, in consultation with federal, state, Tribal, interstate, and local government entities to develop a watershed plan. Does not encompass feasibility-level planning for specific USACE projects, but addresses identified water resources needs from any source, regardless of agency responsibilities, and provides a shared vision of a desired end state that may include recommendations for potential involvement by USACE and other federal and non-federal interests.	https://planning.erdc.dren.mil/toolbox/library/PB/PB2019-01.pdf	Yes	
Planning Assistance to States (PAS)	(Section 22, WRDA 1974, as amended) - Assists states, local governments, Tribes, and other non-federal entities with preparation of comprehensive plans for development, utilization, and conservation of water and related resources of drainage basins, watersheds, or ecosystems. Provides technical assistance in support of state (or groups of states) water resources management and related land resources as identified in state water plans or hazard mitigation plans; preparedness, response and recovery plans; or plans associated with changing hydrologic conditions, climate change, long-term sustainability, and resilience. Studies are for project planning and may not include preparation of site-specific designs or fund construction.	https://planning.erdc.dren.mil/toolbox/library/FactSheets/PAS_FS_Aug2019.pdf	Yes	

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Floodplain Management Services Program	(Section 206, Flood Control Act of 1960, P. L. 86-645, as amended) - Provides technical assistance and planning guidance to federal agencies, states, local governments, other non-federal entities, eligible Tribes, and the private sector to support effective floodplain management. May include obtaining, interpreting, or developing data about flood sources and types, flood depths and water surface elevations, floodwater velocity, flooding extent and duration, flood frequency, and obstruction of flood flows. May also include larger scale 'special studies' on all aspects of floodplain management planning, including floodplain mapping, dam break analyses, regulatory floodways studies, flood warning and emergency preparedness, and flood damage reduction studies. Allows for technical assistance only. Cannot conduct site-specific design or fund construction.	https://www.nab.usace.army.mil/technical-services/	Yes	
Interagency and International Support (IIS)	Provides technical assistance to non-Department of Defense federal agencies, state and local governments, tribal nations, private U.S. firms, international organizations, and foreign governments, including engineering and construction services, environmental restoration and management services, research and development assistance, management of water and land related natural resources, relief and recovery work, and other management and technical services.	http://www.usace.army.mil/Missions/Military-Missions/Interagency-International-Support/	Yes	
National Flood Risk Management Program / Silver Jackets Program	<p>The USACE Flood Risk Management Program (FRMP) works across the agency to focus the policies, programs, and expertise of USACE toward reducing overall flood risk. This includes the appropriate use and resiliency of structures such as levees and floodwalls, as well as promoting alternatives when other approaches (e.g., land acquisition, flood proofing, etc.) reduce the risk of loss of life, reduce long-term economic damages to the public and private sector, and improve the natural environment.</p> <p>Silver Jackets Program - Facilitates connections and networking for State Teams and USACE as well as provide assistance to State Teams in navigating to services provided through other agencies. Develops information resources and supports sharing and networking among teams and agency partners to implement flood risk management efforts that improve flood risk awareness and result in actions to reduce risk. Assists States with identification of available USACE resources and technical services to support flood risk management challenges and coordinates provision of technical assistance, when appropriate.</p>	https://www.iwr.usace.army.mil/Missions/Flood-Risk-Management/Flood-Risk-Management-Program/	Yes	

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Engineer Research and Development Center (ERDC)	<p>Helps solve our nation's most challenging problems in civil and military engineering, geospatial sciences, water resources, and environmental science. Research and development capabilities include research in flood risk management and coastal systems, emergency management, water resources infrastructure, environmental restoration and regulation, and system-wide water resources, among others. Work is conducted in one of seven laboratories. Some research programs related to flood risk management include:</p> <ul style="list-style-type: none">* Flood and Coastal Systems Research Program - https://apps.dtic.mil/dtic/tr/fulltext/u2/1063067.pdf* Coastal and Ocean Data System (CODS)* Ecosystem Management and Restoration Research Program - https://emrrp.el.erd.c.dren.mil/* Regional Sediment Management Program - https://rsm.usace.army.mil/* Engineering with Nature - https://ewn.el.erd.c.dren.mil/* Coastal Inlets Research Program - https://cirp.usace.army.mil/* Joint Airborne Lidar Bathymetric Center of Expertise - https://jalbtcx-live.azurewebsites.net/* U.S. Coastal Research Program - https://uscoastalresearch.org/ <p>ERDC Laboratories conducting research related to flood risk management include:</p> <ul style="list-style-type: none">* Coastal & Hydraulics Laboratory - https://www.erd.c.usace.army.mil/Locations/CHL/* Cold Region Research and Engineering Laboratory - https://www.erd.c.usace.army.mil/Locations/CRREL/* Environmental Laboratory - https://www.erd.c.usace.army.mil/Locations/EL/* Geotechnical & Structures Laboratory - https://www.erd.c.usace.army.mil/Locations/GSL.aspx* Information Technology Laboratory - https://www.erd.c.usace.army.mil/Locations/ITL/	http://www.erd.c.usace.army.mil/	No	
Hydrologic Engineering Center (HEC)	<p>Supports USACE by providing technical methods and guidance, water resources software and associated utilities, training, and workshops. Accomplishes research and development and performs technical assistance and special projects.</p> <p>Designated USACE Technical Center of Expertise in the areas of surface and groundwater hydrology, river hydraulics and sediment transport, hydrologic statistics and risk analysis, reservoir system analysis, planning analysis, real-time water management, and other closely associated technical subjects.</p> <p>*Sustainable Rivers Program - https://www.hec.usace.army.mil/sustainablerivers/</p>	https://www.hec.usace.army.mil/	No	
National Nonstructural Committee	<p>Promotes the use of nonstructural flood proofing methods for reducing life loss and minimizing property damage. Provides technical consultation on a full array of flood risk management measures from initial assessments and plan formulation through technical review. Offers tools and resources including publications, assessment tools, structure attribute table, nonstructural matrix, and National Flood Barrier Testing and Certification Program. Common types of assistance include:</p> <ul style="list-style-type: none">• Conduct of nonstructural assessments and plan formulation• Workshops, webinars, and public meeting presentations• Quality assurance• Technical Review• Flood risk management behind levees and below dams	https://www.usace.army.mil/Missions/Civil-Works/Project-Planning/hnc/	No	
National Levee Database	<p>Searchable inventory of information about levees displayed in easy-to-use map interface. Includes locations and conditions information, reports, inspection summaries, and other records about levees in the USACE Levee Safety Program and a growing body of information on levees outside of the USACE program.</p>	https://levees.sec.usace.army.mil/	No	

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National Inventory of Dams	Searchable inventory of information about dams displayed in easy-to-use tabular and map interfaces. Includes locations and structure information, hazard classification, inspection dates, and other records about dams in the United States.	https://nid.sec.usace.army.mil/	No	
Mississippi River Geomorphology and Potamology Program (MR&T)	The Mississippi River Geomorphology and Potamology (MRG&P) Program is authorized through the 1928 Flood Control Act and is a part of the Mississippi River and Tributaries (MR&T) Project. MRG&P's measurements and investigations provide the Corps access to the most up-to-date and technically competent scientific data and analysis, both during emergency operations (such as flood events) and in the day-to-day decisions concerning the management and operation of the river for providing navigation and flood risk management in an environmentally responsible manner.	www.mvd.usace.army.mil/mrgp.aspx	No	
Sustainable Rivers Program (SRP)	Authorized purposes of reservoirs owned and operated by the Corps of Engineers are given in legislation associated with project construction, in legislation passed after construction that include language about specific existing projects, and in legislation that apply generally to all Corps reservoirs such as the Endangered Species Act (Public Law 93-205) and the Clean Water Act (Public Law 92-500). Most purposes of Corps reservoirs fall into eight general categories: flood risk management, recreation, fish and wildlife, municipal and industrial water supply, water quality, irrigation, hydropower, and navigation. SRP is all about maximizing environmental benefits associated with already built infrastructure. We've found there is untapped potential with existing infrastructure and current authorities. There are numerous examples of this work and happy to share details, if needed.	https://www.hec.usace.army.mil/sustainableivers/	No	
USACE Operations and Maintenance	Authorized purposes of infrastructure owned and operated by the Corps of Engineers are given in legislation associated with project construction, in legislation passed after construction that include language about specific existing projects, and in legislation that apply generally to all Corps reservoirs such as the Endangered Species Act (Public Law 93-205) and the Clean Water Act (Public Law 92-500). Most purposes of Corps infrastructure fall into eight general categories: flood risk management, recreation, fish and wildlife, municipal and industrial water supply, water quality, irrigation, hydropower, and navigation.	https://www.usace.army.mil/Missions/Civil-Works/	No	
Avoid and Minimize - Upper and Middle MS Rivers	In October 1992, the St. Louis District of USACE issued "Design Memorandum No. 24, Avoid and Minimize Measures, Melvin Price Locks and Dam, Upper Mississippi River - Missouri and Illinois"	St. Louis District. Program link: https://www.mvs-wc.usace.army.mil/arec/AM.html	No	
USFWS Biological Opinion - Middle MS River	In 2000, the USFWS issued a draft jeopardy biological opinion for the operation and maintenance of the 2.7-m navigation channel on the UMR, including the MMR. Required ecosystem restoration minimize impacts to endangered Pallid Sturgeon.	https://www.fws.gov/fieldnotes/regmap.cfm?arskey=28463	No	
The Lower Mississippi River Conservation Committee (LMRCC)	Formed in 1994 as a coalition of natural resource conservation and environmental quality agencies from the states of Arkansas, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. There are several cooperating federal agencies, including USFWS, USACE, U.S. Geological Survey, U.S. Environmental Protection Agency, and U.S. Department of Agriculture Natural Resource Conservation Service. The U.S. Fish and Wildlife Service provides a full-time coordinator to the LMRCC.	See https://www.lmrcc.org/	No	
Lower Mississippi River Conservation Plan and Biological Opinion	A Conservation Plan under the Endangered Species Act of 1973, Section 7(a)(1)), was finalized by MVD for the three endangered species and a Biological Opinion was issued by the USFWS supporting the measures outlined in the Conservation Plan. https://www.lmrcc.org/wp-content/uploads/2021/05/MRGP-Report-No.-4-_Conservation-Plan_final.pdf	https://www.fws.gov/mississippies/_pdf/lmrbiologicalopinion.pdf	No	
Lower Mississippi River Resource Assessment	The LMRRA, which began in 2012, is a congressionally authorized study of information needed for managing the Lower Mississippi River; a study of the needs of natural habitats and the species they support; and a study of the need for more river-related recreational opportunities and public access.	https://www.mvm.usace.army.mil/Missions/Environmental-Stewardship/Hatchie-Loosahatchie-Mississippi-River-Ecosystem-Restoration-Study/	No	
Mat Sinking Unit (MR&T)	Navigation support - channel improvements	https://www.mvk.usace.army.mil/Missions/Operations-Division/River-Operations/Mat-Sinking-unit/	No	

USACE: Full Data Submissions

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Mississippi River/Gulf of Mexico Hypoxia Task Force (member)	See Strategy Narrative	https://www.epa.gov/ms-htf	No	
Regulatory Program	Clean Water Act, Section 404 and Rivers and Harbors Section 10. Data source for governmental and non-governmental projects constructed on the river as well as projects under consideration by applicants.	See https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404 and https://www.epa.gov/cwa-404/section-10-rivers-and-harbors-appropriation-act-1899	No	

USDA NRCS: Full Data Submissions

USDA NRCS

Program Name (USDA NRCS)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Agricultural Conservation Easement Program (ACEP)	The Agricultural Conservation Easement Program (ACEP) provides financial and technical assistance to help conserve agricultural lands, wetlands, and their related benefits. The Wetland Reserve Easement component is a voluntary program offering landowners an opportunity to protect, restore, and enhance wetlands on their property and offers an opportunity to establish long-term conservation and wildlife practices and protection. The goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every enrolled acre. In many cases, restoration and protection of wetlands reduces flood damages.	http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
DamWatch	DamWatch is a web-based dam monitoring tool that helps NRCS project sponsors protect communities by providing real-time monitoring of 11,900 watershed program dams throughout the U.S. Alerts essential personnel when rainfall, snowmelt, and earthquakes threaten dams. Provides a "one-stop" source for critical documents, such as drawings, photographs, and emergency action plans.	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/?navtype=SUBNAVIGATION&ss=161042&cid=NRCEPRD364216&navid=105100000000000&pnavid=105000000000000&position=News&ttype=detail	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Regional Conservation Partnership Program (RCPP)	The Regional Conservation Partnership Program (RCPP) promotes coordination of NRCS conservation activities with partners that offer value-added contributions to expand our collective ability to address on-farm, watershed, and regional natural resource concerns. Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges and provide measurable improvements and outcomes tied to the resource concerns they seek to address.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/rcpp/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Conservation Stewardship Program (CSP)	Conservation Stewardship Program (CSP) helps producers build on existing conservation efforts while strengthening operations such as improving grazing conditions, increasing crop resiliency, or developing wildlife habitat.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/csp/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Emergency Watershed Program (EWP)	The Emergency Watershed Program (EWP) allows communities to quickly address serious and long-lasting damages to infrastructure and to the land. The program's timelines for assistance ensures NRCS must act quickly to help local communities cope with adverse impacts resulting from natural disasters. All projects must demonstrate that they reduce threats to life and property; be economically, environmentally, and socially sound and must be designed to acceptable engineering standards. The EWP Program also allows NRCS to establish non-traditional partnerships with sponsors to complete projects. EWP also purchases floodplain easements from affected landowners, restoring floodplain functions and values in affected watersheds.	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/landscape/ewpp/?cid=nrcseprd1381472	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Environmental Quality Incentives Program (EQIP)	The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, increased soil health and reduced soil erosion and sedimentation, improved or created wildlife habitat, and mitigation against drought and increasing weather volatility.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Feral Swine Eradication and Control Program	The Feral Swine Eradication and Control Program (FSCP) is jointly implemented by NRCS and APHIS to respond to the threat that feral swine pose to agriculture, native ecosystems, and human and animal health. To deliver assistance to producers and assess the impact of feral swine, NRCS advertised funding opportunities for pilot projects that are a collaborative effort between NRCS, APHIS, and selected partners. There are a total of 34 active pilot projects across 12 states. Pilot projects will consist broadly of three coordinated components: 1) feral swine removal by APHIS; 2) restoration efforts supported by NRCS; and 3) assistance to producers for feral swine control provided through grants with non-federal partners.	www.nrcs.usda.gov/FSCP	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.

USDA NRCS: Full Data Submissions

Program Name (USDA NRCS)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Mississippi River Basin Healthy Watersheds Initiative (MRBI)	Launched in 2009, the 12-state Mississippi River Basin Healthy Watersheds Initiative (MRBI) uses several Farm Bill programs, including the Environmental Quality Incentives Program (EQIP) and the Agricultural Conservation Easement Program (ACEP), to help landowners sustain America's natural resources through voluntary conservation. The overall goals of MRBI are to improve water quality, through targeted conservation coordinated with each State's Nutrient Reduction Strategy, while ensuring economic viability of agricultural lands.	https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/initiatives/?cid=stelprdb1048200	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
National Water Quality Initiative (NWQI)	The National Water Quality Initiative is a partnership among NRCS, state water quality agencies, and the U.S. Environmental Protection Agency to identify and address impaired water bodies through voluntary conservation. NRCS provides targeted funding, through EQIP, for financial and technical assistance in small watersheds most in need and where farmers can use conservation practices to make a difference to improve water quality and protect source water.	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/water/?cid=stelprdb1047761	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Working Lands for Wildlife (WLFW)	Through Working Lands for Wildlife (WLFW), USDA uses a win-win approach to systematically target conservation efforts to improve agricultural and forest productivity which enhance wildlife habitat on working landscapes. NRCS provides technical and financial assistance through the full suite of its authorities to participants who voluntarily make improvements to their working lands while the US Fish and Wildlife Service (FWS) provides participants with regulatory predictability for the Endangered Species Act (ESA).	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/initiatives/?cid=stelprdb1046975	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Conservation Technical Assistance Program (CTA)	The Conservation Technical Assistance Program (CTA) provides our nation's farmers, ranchers, and forestland owners with the knowledge and tools they need to conserve, maintain, and restore the natural resources on their lands and improve the health of their operations for the future. NRCS offers this assistance at no cost to the producers we serve. Our goal is to give our customers personalized advice and information, based on the latest science and research, to help them make informed decisions.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Conservation Effects Assessment Project (CEAP)	CEAP is a multi-agency effort designed to quantify the effects of conservation practices on agricultural land and to provide a scientific basis for managing the agricultural landscape for environmental quality. Findings from assessments completed under CEAP are used to guide USDA conservation policy and program development and to help conservationists, farmers, and ranchers, make more informed conservation decisions. Assessments of the effects of conservation practices and current agricultural management are carried out at national, regional, and watershed scales - including the Upper and Lower Mississippi Regions. CEAP has 5 components - cropland, grazing lands, wildlife, wetlands, and watershed assessments - each of which can contribute to assessing conservation outcomes and identifying priority conservation treatment needs and opportunities as part of a Mississippi River Restoration and Resiliency Strategy.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Watershed and Flood Prevention Operations Program	The Watershed Protection and Flood Prevention Program helps units of federal, state, local, and tribal government (project sponsors) protect and restore watersheds up to 250,000 acres. This program provides for cooperation between the Federal government and the states and their political subdivisions to work together to prevent erosion; floodwater and sediment damage; to further the conservation development, use, and disposal of water; and to further the conservation and proper use of land in authorized watersheds.	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wfpo/	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.
Watershed Rehabilitation Program	The Watershed Rehabilitation Program helps project sponsors rehabilitate aging dams that are reaching the end of their design lives. This rehabilitation addresses critical public health and safety concerns. Since 1948, the Natural Resources Conservation Service, NRCS, has assisted local sponsors in constructing 11,845 project dams.	https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/landscape/wr/?cid=nrcs143_008448	N/S	USDA is strongly considering including this program for inclusion in Justice40, but has yet to make a final determination.

USGS: Full Data Submissions

USGS

Program Name (USGS)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Coastal and Marine Geology Program (CMGP)	Works with many and varied partners to ensure that our Nation has the information it needs to understand, restore, and protect healthy coastal and ocean resources and the communities who depend on them.	https://marine.usgs.gov/	N/S	
Flood Inundation Mapping Program	<p>The USGS Flood Inundation Mapping Program has two main functions: to partner with local communities to assist with development and validation for flood inundation map libraries and to provide online access to flood inundation maps along with real-time streamflow data, flood forecasts, and potential loss estimates.</p> <p>Inundation maps identify areas of higher risk for flooding. By showing where flooding may occur over a range of water levels in the community's local stream or river and identify which stream sections where flooding will likely occur. The FIM Mapper allows users to explore the full set of inundation maps that show where flooding might occur in different conditions.</p>	http://water.usgs.gov/osw/flood_inundation/	N/S	
Groundwater and Streamflow Information Program (GWSIP)	Supports USGS federal priority stream gages needed for flood-forecasting and flood response activities, including limited deployment of temporary rapid deployment stream gages (RDGs) needed to monitor water levels at crucial locations, flood-documentation studies, and flood-inundation mapping.	https://www.usgs.gov/science/mission-areas/water/groundwater-and-streamflow-information	N/S	
Water Availability and Use Science Program	The Water Availability and Use Science Program (WAUSP) assists in the determination of water that is available for human and ecological uses, now and in the future. This includes evaluating the quantity and quality of water, identifying long-term trends in water availability, and developing an improved ability to forecast water availability for economic, energy production, and environmental uses.	https://www.usgs.gov/water-resources/water-availability-and-use-science-program	N/S	
Integrated Water Availability Assessments (IWAAs)	The USGS Integrated Water Availability Assessments (IWAAs) are a multi-extent, stakeholder driven, near real-time census and prediction of water availability for both human and ecological uses at regional and national extents. The USGS Integrated Water Availability Assessments (IWAAs) will provide nationally consistent assessments of water available for human and ecological needs in the United States and identify factors that limit water availability or could lead to conflict. The IWAAs are designed to provide information to meet the goals of the National Water Census as established through the SECURE Water Act. Nested under Water Availability and Use Science Program.	https://www.usgs.gov/mission-areas/water-resources/science/integrated-water-availability-assessments-iwaas?qt-science_center_objects=0#qt-science_center_objects	N/S	
National Water Census	The USGS National Water Census (NWC) is designed to systematically provide information that will allow resource managers to assess the supply, use, and availability of the Nation's water. The goal of the NWC is to provide nationally consistent base layers of well-documented data that account for water availability and use nationally. Nested under Water Availability and Use Science Program.	https://www.usgs.gov/mission-areas/water-resources/science/water-availability-and-use-science-program-national-water?qt-science_center_objects=0#qt-science_center_objects	N/S	
Water Resources Research Act Program	The Water Resources Research Act Program is a Federal-State partnership that plans, facilitates, and conducts research that helps resolve State and regional water problems; promotes technology transfer; promotes dissemination and application of research; trains scientists through participation in research; and awards competitive grants under the Water Resources Research Act.	https://www.usgs.gov/water-resources/water-resources-research-act-program	N/S	
National Water Quality Program	The National Water Quality Program provides an understanding of water-quality conditions; whether conditions are getting better or worse over time; and how natural features and human activities affect those conditions.	https://www.usgs.gov/water-resources/national-water-quality-program	N/S	
National Water-Quality Assessment (NAWQA)	In 1991, Congress established the National Water-Quality Assessment (NAWQA) Project to address where, when, why, and how the Nation's water quality has changed, or is likely to change in the future, in response to human activities and natural factors. Since then, NAWQA has produced scientific data and knowledge that is used by national, regional, state, and local agencies to develop science-based policies and management strategies to improve and protect water resources used for drinking water, recreation, irrigation, energy development, and ecosystem needs. A prominent feature of NAWQA is the development of long-term consistent and comparable information on streams, rivers, ground water, and aquatic systems. Nested under National Water Quality Program.	https://www.usgs.gov/mission-areas/water-resources/science/national-water-quality-assessment-nawqa?qt-science_center_objects=0#qt-science_center_objects	N/S	

USGS: Full Data Submissions

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Landslide Hazards Program	Focus is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. Programs include monitoring of risks, predictions, and tracking landslides, including a 'Did you see it' reporting application.	https://www.usgs.gov/natural-hazards/landslide-hazards	N/S	
WaterWatch	Maps and graphics that summarize current streamflow conditions and permits comparisons with past flood and drought flows and flow statistics.	https://waterwatch.usgs.gov/	N/S	
Total Water Level and Coastal Change Forecast Viewer	Total water level (TWL) at the shoreline is the combination of tides, surge, and wave runup. A forecast of TWL is an estimate of the elevation where the ocean will meet the coast and can provide guidance on potential coastal erosion and flooding hazards.	https://coastal.er.usgs.gov/hurricanes/research/twlviewer/	N/S	
USGS Coastal Change Hazards	CCH is a program focus led and executed by a community of USGS scientists, technicians, and communicators working together to develop advanced capabilities to observe, understand, and forecast changes to the Nation's coast with immediate and long-term applications.	https://usgs.gov/coastalchangehazards	N/S	
USGS Flood Event Viewer	Switchboard compilation of flood data and science reports for a variety of users and uses.	https://stn.wim.usgs.gov/fev/	N/S	
USGS PeakFQ and National Flood-Peak Flow Data	Software that implements federal Guidelines for Flood-Frequency Analysis on USGS records of peak flood flows.	https://water.usgs.gov/software/PeakFQ/	N/S	
USGS Flood Information	The USGS collects flood data and conducts targeted flood science to help Federal, State, and local agencies, decision makers, and the public before, during, and after a flood. Our efforts provide situational awareness, drive predictive models, inform infrastructure design and operation, undergird floodplain mapping, assist flood constituent/load quantification, and facilitate flood impact assessments.	https://www.usgs.gov/mission-areas/water-resources/science/usgs-flood-information	N/S	
3D Elevation Program	To respond to growing needs for high-quality elevation data, the goal of 3DEP is to complete the acquisition of nationwide lidar (IfSAR in AK) to provide the first-ever national baseline of consistent high-resolution elevation data – both bare earth and 3D point cloud.	https://www.usgs.gov/core-science-systems/ngp/3dep	N/S	
Science Analytics and Synthesis	SAS synthesizes and delivers Earth system data and information. We strive to accelerate research and decision making through data science, information delivery, advanced computing, and biodiversity analytics. SAS has developed a Five-Year Science Strategy that outlines our organization's goals, research questions, and strategic activities.	https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis	N/S	
Land Change Science Program	Changes in the environment, land use, and climate can have significant impacts on our Nation's economy, natural resources, infrastructure, and water, food, and energy security. To strengthen our Nation's ability to respond and adapt to these stressors, the USGS Land Change Science Program conducts research to improve understanding of rates, causes, and consequences of climate and land-use change.	https://www.usgs.gov/core-science-systems/land-change-science-program	N/S	
National Cooperative Geologic Mapping Program	The National Cooperative Geologic Mapping Program (NCGMP) is the primary source of funds for the production of geologic maps in the United States and provides accurate geologic maps and three-dimensional framework models that help to sustain and improve the quality of life and economic vitality of the Nation and to mitigate natural hazards.	https://www.usgs.gov/core-science-systems/national-cooperative-geologic-mapping-program/	N/S	
National Geospatial Program	The National Geospatial Program provides a foundation of digital geospatial data representing the topography, natural landscape, and built environment of the United States. These data and derived products and services can be accessed through "The National Map Data Download and Visualization Services."	https://www.usgs.gov/core-science-systems/national-geospatial-program	N/S	
National Land Imaging Program	Our Nation's economic security and environmental vitality rely on continuous monitoring of the Earth's continents, islands, and coastal regions in order to record, study, and understand land change at local, regional, and global scales. The USGS National Land Imaging (NLI) Program helps meet this need.	https://www.usgs.gov/core-science-systems/national-land-imaging-program	N/S	
Biological Threats and Invasive Species Research Program	The Biological Threats Research Program delivers science to protect public safety, property, and ecosystems from invasive plants and animals and infectious fish and wildlife diseases that pose significant ecologic and economic threats to the resources of the United States. Appropriated and reimbursable program funded through GLRI.	https://www.usgs.gov/mission-areas/ecosystems/biological-threats-and-invasive-species-research-program	N/S	

USGS: Full Data Submissions

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Climate Adaptation Science Centers	From the expansion of invasive species to wildfire, from drought to sea-level rise, changes in climate have created new and evolving challenges for our nation's resource managers and communities. Our science helps managers of fish, wildlife, and ecosystems understand these impacts and strategically adapt to changing conditions.	https://www.usgs.gov/ecosystems/climate-adaptation-science-centers	N/S	
Climate Research and Development Program	The Climate Research and Development (Climate R&D) Program strives to advance the understanding of the physical, chemical, and biological components of the Earth system, the causes and consequences of climate and land-use change, and the vulnerability and resilience of the Earth system to such changes.	https://www.usgs.gov/ecosystems/climate-research-and-development-program	N/S	
Cooperative Research Units	Established in 1935, our mission is our hallmark: meet the actionable science needs of our cooperators, provide technical assistance, and develop the future workforce through graduate education/mentoring. The Coop Units are located on 40 universities in 38 states. They are called Coop Units because each cooperator plays a role in the staffing, funding, and directing the units.	https://www.usgs.gov/ecosystems/cooperative-research-units	N/S	
Environmental Health Program	The Environmental Health Program (Toxic Substances Hydrology and Contaminant Biology) supports integrated natural science expertise and capabilities across the USGS related to environmental contaminants and pathogens. This science informs stakeholder decisions to manage fish and wildlife health and provides environmental exposure information to partners in public health.	https://www.usgs.gov/ecosystems/environmental-health-program	N/S	
Land Management Research Program	The Land Management Research Program conducts research to improve the effectiveness of land management and inform restoration of priority ecosystems on millions of acres including public lands such as National Parks, refuges, and other critical landscapes that support the biodiversity of fish, wildlife, and plant species, as well as thriving economies.	https://www.usgs.gov/mission-areas/ecosystems/land-management-research-program	N/S	
Species Management Research Program	The Species Management Research Program provides science that is used by managers, policymakers, and others for decisions that protect, conserve, and enhance healthy fish and wildlife populations across the United States and beyond.	https://www.usgs.gov/mission-areas/ecosystems/species-management-research-program	N/S	
Coastal and Marine Hazards and Resources	Coastal and Marine Hazards and Resources Program scientists and staff study coastal and ocean resources and processes from shorelines and estuaries to the continental shelf and deep sea.	https://www.usgs.gov/natural-hazards/coastal-marine-hazards-and-resources	N/S	
Long Term Resource Monitoring Program	Supports decision makers with the information and understanding needed to maintain the Upper Mississippi River System as a viable multiple-use large river ecosystem. Reimbursable, funded by USACOE.	https://umesc.usgs.gov/ltrm-home.html	N/S	
Federal Priority Streamgages	Federal Priority Streamgages (FPS) are monitoring stations that track the amount of water in streams and rivers across the Nation and that meet one or more strategic, long-term Federal information needs. FPS are strategically positioned across the Nation to serve, in part, as a "backbone" for the larger USGS streamgaging network that is operated by the USGS in cooperation with over 1,800 Federal, State, tribal, and local agencies or organizations.	https://www.usgs.gov/mission-areas/water-resources/science/federal-priority-streamgages-fps	N/S	
Next Generation Water Observing System	Substantial advances in water science, together with emerging breakthroughs in technical and computational capabilities, have led the USGS to develop a Next Generation Water Observing System (NGWOS). The USGS NGWOS will provide real-time data on water quantity and quality in more affordable and rapid ways than previously possible, and in more locations. USGS' NGWOS will integrate fixed and mobile monitoring assets in the water, ground, and air, including innovative webcams and new ground- and space-based sensors. When fully implemented, the NGWOS will provide high temporal and spatial resolution data on streamflow, evapotranspiration, snowpack, soil moisture, water quality, groundwater/surface-water connections, stream velocity distribution, sediment transport, and water use. USGS partner and stakeholder needs are helping to inform the NGWOS design so that data and information generated by the NGWOS will help them anticipate water shortages more accurately and react to water hazards more quickly.	https://www.usgs.gov/mission-areas/water-resources/science/next-generation-water-observing-system-ngwos?qt-science_center_objects=0#qt-science_center_objects	N/S	
Integrated Water Prediction (IWP)	The USGS Integrated Water Prediction science program focuses on the development of advanced models for forecasting multiple water quality and quantity attributes including water budgets and components of the water cycle; water use; temperature; dissolved and suspended water constituents, and ecological conditions. It also is developing the cyberinfrastructure and workflows required to implement national and local-scale models to be used by water resource managers over the decades ahead.	https://www.usgs.gov/mission-areas/water-resources/science/integrated-water-prediction-iwp?qt-science_center_objects=0#qt-science_center_objects	N/S	

USFWS: Full Data Submissions

USFWS

Program Name (USFWS)	Summary	Program Link/URL	Do you anticipate the Justice40 directive would apply to the funding provided under this program? Please answer Yes (Y), No (N) or Not Sure (N/S).	Please enter any additional comments relating to the Justice40 directive as appropriate.
Coastal Barrier Resources Act (CBRA)	Congress recognized that certain actions and programs of the Federal Government have historically subsidized and encouraged development on coastal barriers, resulting in the loss of natural resources; threats to human life, health, and property; and the expenditure of millions of tax dollars each year. To remove the federal incentive to develop these vulnerable areas, the Coastal Barrier Resources Act (CBRA) of 1982 and subsequent amendments designated relatively undeveloped coastal barriers along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS). These areas are ineligible for most new federal expenditures and financial assistance that encourage development such as federal flood insurance. Areas within the CBRS can be developed provided that private developers or other non-federal parties bear the full cost. The FWS is responsible for maintaining the official maps of the CBRS. Federal agencies are responsible for complying with the CBRA, which includes consulting with FWS for federal expenditures and financial assistance within the CBRS that may meet an exception to the CBRA.	https://www.fws.gov/cbra/	N/S	
Fish Passage Program	The National Fish Passage Program works with local communities, on a voluntary basis, to restore rivers and conserve our nation's aquatic resources by removing or bypassing barriers. Our projects benefit both fish and people. We work with communities, providing financial and technical assistance, to remove obsolete and dangerous dams, permanently eliminating public safety hazards and restoring river ecosystems. The program also works with transportation agencies and others to improve road stream crossings so that the streams can flow naturally beneath them. The resulting infrastructure is more resilient to flooding and benefits communities by saving money in long-term repair and replacement costs. We collaborate with landowners to adapt water diversion systems so that the systems are efficient at retrieving and moving water as well as saving fish.	https://www.fws.gov/fisheries/fish-passage.html	Y	
National Fish Habitat Program	The National Fish Habitat Partnership (NFHP) program is a comprehensive effort to treat the causes of fish habitat decline by maximizing the impact of limited funding for fish habitat conservation. Under NFHP, Federal, State, Tribal, and privately raised funds are leveraged through regional Fish Habitat Partnerships (FHPs) to address the nation's biggest fish habitat challenges. FHPs are the working units of the NFHP, implementing strategically identified fish habitat conservation actions on the ground. The mission of the NFHP program is to: protect, restore, and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people." The U.S. Fish and Wildlife Service (Service) is a key partner in implementing the NFHP, along with States, Tribes, other Federal agencies, conservation organizations, and industry. The Service receives annual appropriations from Congress to work with partners to achieve common fish habitat conservation goals. Under the NFHP, the Service provides technical expertise and coordination support on the local, regional, and national levels. The Service provides funding and works directly with FHPs to identify, develop, and implement fish habitat conservation projects.	https://www.fws.gov/fisheries/fishhabitat-partnership.html	N/S	
Partners for Fish and Wildlife Program	The Partners for Fish and Wildlife Program provides technical and financial assistance to landowners interested in restoring and enhancing wildlife habitat on their land. Projects are custom designed to meet landowners' needs. Since the program's start in 1987, some 50,000 landowners have worked with Partners' staff to complete 60,000 habitat restoration projects on 6 million acres. Partners projects are voluntary. Participating landowners continue to own and manage their land to serve their needs while they improve conditions for wildlife.	https://www.fws.gov/partners/	N/S	
Sikes Act	The Department of Defense (DoD) manages approximately 27 million acres of land on 338 military installations that is largely protected from development. These lands support the preservation of ecologically important native habitats such as old-growth forests, tall-grass prairies, coastal beaches, and vernal pool wetlands making military installations a haven for fish, wildlife, and plants, including rare and unique species. The Sikes Act requires the U.S. Fish and Wildlife Service (Service), state fish and wildlife agencies, and military installations across the nation to work closely to conserve fish and wildlife. The Sikes Act ensures the protection and enhancement of ecosystems, while allowing military lands to sustain military operations and meet mission success. Working under the Sikes Act, the Service offers the military guidance and support for the conservation and management of fish and wildlife resources on military installations while meeting military readiness goals.	https://www.fws.gov/fisheries/military-lands-conservation-sikes-act.html	N/S	
Aquatic Invasive Species Program	The Aquatic Invasive Species Program helps safeguard our nation's waterways from invasive species by working with our partners to develop and implement prevention and control projects, educating the public, and drafting regulations to prohibit the importation of high-risk species. A primary focus of the AIS program is invasive species prevention. There are coordinators located throughout the U.S. that work closely with public and private sectors to develop and implement AIS projects. One way to prevent nonnative wildlife species from becoming invasive is to list them as an injurious species under the Lacey Act. The Lacey Act authorizes divisions of the Department of the Interior, such as the U.S. Fish and Wildlife Service, to regulate or ban the importation or transportation of that animal or plant within the U.S. Other preventive measures include Ecological Risk Screening Summaries, a process to characterize and prioritize the potential risk of invasiveness from species of wild animals and plants.	https://www.fws.gov/fisheries/about-aquatic-invasive-species.html	N/S	

USFWS: Full Data Submissions

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Aquatic Nuisance Species Task Force	The Aquatic Nuisance Species (ANS) Task Force was established by Congress with the passage of the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) in 1990 and reauthorized with the passage of the National Invasive Species Act (NISA) in 1996 (collectively, the Act). Composed of 13 Federal and 15 ex-officio members, it is the only Federally mandated intergovernmental organization solely dedicated to preventing and controlling ANS. The Act charges the ANS Task Force with implementing the Act by developing and executing a program that: Prevents the introduction and dispersal of ANS; Monitors, controls, and studies such species; Conducts research on methods to monitor, manage, control, and eradicate such species; Coordinates ANS programs and activities of ANS Task Force members and affected state agencies; and Educates and informs the general public and program stakeholders about the prevention, management, and control of these species. Co-chaired by the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration, ANS Task Force works in conjunction with Regional ANS Panels and issue-specific committees to coordinate efforts among Federal and State agencies as well as efforts of the private sector and other North American interests. The ANS Task Force strives to create opportunities and synergies among members and participants to work collaboratively by sharing resources, expertise, and ideas across agency and organizational lines.	https://www.fws.gov/anstaskforce/default.php	N/S	
State and Interstate Aquatic Invasive Species Grant Program	We encourage State and interstate planning entities to develop management plans describing detection and monitoring efforts of aquatic nuisance species (ANS), prevention efforts to stop their introduction and spread, and control efforts to reduce their impacts. Management plan approval by the Aquatic Nuisance Species Task Force is required to obtain funding under Section 1204 of the Aquatic Nuisance Species Prevention and Control Act. Regardless of financial incentives, plans are a valuable and effective tool for identifying and addressing ANS problems and concerns in a climate of many jurisdictions and other interested entities. Specific benefits of ANS management plans include: Describing multiple ANS activities underway in the geographic area covered and providing opportunities for improving the coordination of involved organizations and the effectiveness of their activities; Describing and documenting ANS problems and the respective roles of the involved organizations for systematically prioritizing and resolving those problems; Informing the public of problems and solutions through participation in the process and by sharing the plan with the public; this should yield more support for addressing problems and for taking actions to reduce ANS impacts; Encouraging organizations in the same geographic area to share information, develop consistent, coordinated and complementary plans, reduce duplication of effort and collaboratively support implementation; and Improving collaboration between national, regional, state, and local efforts.	https://www.fws.gov/anstaskforce/stateplans.php	N/S	
Regional Panels on Aquatic Nuisance Species	USFWS provides operating expenses for six Regional Panels (Great Lakes, Mississippi Basin, Western, Northeast, Gulf, and MidAtlantic) on Aquatic Nuisance Species. The Panels were established to identify the highest priority activities in each region, coordinate activities in each region, and advise public and private interests on control efforts.	https://www.fws.gov/anstaskforce/panels.php	N/S	
Invasive Carp Management and Control Program	Authorized in the Water Resources and Reform Development Act of 2014 (Section 1039) and as amended by the Water Resources Development Act of 2020 (Section 506), USFWS leads a multiagency effort to slow the spread of invasive carp in the Mississippi River Basin. USFWS provides technical and financial assistance to states to support collaborative efforts to implement the national <i>Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States</i> . USFWS provides coordination support to six Mississippi River sub-basin invasive carp partnerships that collaboratively developed and implemented control strategies to accomplish the goals of the national plan. The USFWS also provides technical and financial support to prevent the spread and establishment of invasive carp in the Great Lakes. USFWS Co-chairs the inter-agency Invasive Carp Regional Coordinating Committee that represents the collective efforts of international, federal, state, and municipal agencies to combat the spread of invasive carp into the Great Lakes. The ICRCC provides oversight and coordination of interagency prevention activities through development and implementation of an annual Invasive Carp Action Plan and complementary Monitoring and Response Plan.	https://invasivecarp.us/index.html	N/S	
Endangered Species Program	The U.S. Fish and Wildlife Service (Service) collaborates with states, tribes, private landowners, non-governmental organizations, and federal partners to achieve on-the-ground conservation for species and habitats around the country. The ESA provides a broad and flexible framework to facilitate conservation with a variety of stakeholders. We have many tools to help our agency work with, leverage, and expand our existing network of conservation partnerships to produce effective conservation practices and conservation strategies on-the-ground.	https://www.fws.gov/endangered/	N/S	
Candidate Conservation Program	The Candidate Conservation Program uniquely bridges the non-regulatory and regulatory approaches to species conservation. Two key elements: conducting assessments to identify species most in need of the ESA's protection and the activities that threaten them; and working through partnerships to conserve these species by improving habitat and removing threats.	https://www.fws.gov/endangered/what-we-do/index.html	N/S	

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Cooperative Endangered Species Conservation Fund Grants	As many species currently listed as federally endangered or threatened under the Endangered Species Act (ESA) spend at least part of their life cycle on non-federal lands, the U.S. Fish and Wildlife Service (Service) recognizes that recovery success will ultimately depend on working cooperatively with states, territories, and tribes to foster voluntary conservation efforts on privately owned lands. Section 6 of the ESA authorizes the Service to provide federal financial assistance through the Cooperative Endangered Species Conservation Fund (CESCF) to states and territories (states) to support the development and implementation of conservation programs for the benefit of resident listed, candidate, and at-risk species on non-federal lands. This financial assistance, provided in the form of competitive grants and made available through four CESCF grant programs, contributes approximately \$51.8 million toward species and habitat conservation annually.	https://www.fws.gov/endangered/grants/index.html	N/S	
Migratory Bird Program	Migratory birds are some of nature's most magnificent resources. They have a significant role in the health of the environment, economy, and culture in the United States and internationally. The mission of the Fish and Wildlife Service's Migratory Bird Program is to conserve migratory bird populations and their habitats for future generations, through careful monitoring, effective management, and by supporting national and international partnerships that conserve habitat for migratory birds and other wildlife.	https://www.fws.gov/birds/index.php	N/S	
The National Wetlands Inventory	The U.S. Fish and Wildlife Service (FWS) is the principal U.S. Federal agency tasked with providing information to the public on the status and trends of our Nation's wetlands. The U.S. FWS National Wetlands Inventory (NWI) is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of U.S. wetlands. NWI data are used by natural resource managers, within the U.S. FWS and throughout the Nation, to promote the understanding, conservation, and restoration of wetlands.	https://www.fws.gov/wetlands/	N/S	
Federal Duck Stamp Program	Federal Duck Stamps are conservation revenue stamps; 98 percent of the purchase price goes directly to help acquire and protect wetland habitat and purchase conservation easements for the National Wildlife Refuge System. Wetlands acquired with Duck Stamp dollars help purify water, aid in flood control, reduce soil erosion and sedimentation, and enhance outdoor recreation opportunities. Since 1934, the sales of Federal Duck Stamps have generated funds which have been used to help purchase or lease over millions of acres of waterfowl habitat in the United States. These lands are now protected in the U.S. Fish and Wildlife Service's National Wildlife Refuge System. Waterfowl are not the only wildlife to benefit. Numerous other birds, mammal, fish, reptile, and amphibian species that rely on wetland habitats have prospered. Further, an estimated one-third of the nation's endangered and threatened species find food or shelter in refuges established using Federal Duck Stamp funds.	https://www.fws.gov/birds/get-involved/duck-stamp.php	N/S	
Environmental Response and Restoration	The Environmental Response and Restoration Program works to protect and restore fish, wildlife, and their habitats that have been threatened or injured by oil discharges, releases of hazardous substances, or other emerging contaminants of concern. To accomplish this, the program provides planning, preparedness, and environmental response leadership; conduct Natural Resource Damage Assessment and Restoration activities with our federal, state, and tribal partners and other stakeholders; and provide analytical chemistry support and technical assistance to the Service and other agencies regarding environmental contaminants.	https://www.fws.gov/ecological-services/habitat-conservation/environmental-response.html	N/S	
National Wildlife Refuge System	The National Wildlife Refuge System is the world's premier system of public lands and waters set aside to conserve America's fish, wildlife, and plants. Since President Theodore Roosevelt designated Florida's Pelican Island as the first wildlife refuge in 1903, the System has grown to more than 567 refuges, 38 wetland management districts, and five marine national monuments. Refuges deploy a host of scientifically sound management tools to address biological challenges. Tools range from water management to wilderness character monitoring. Through partnerships, the U.S. Fish and Wildlife Service leads the way in developing community-driven conservation solutions that reap ecological and economic benefits for fish, wildlife, and people.	https://www.fws.gov/refuges/	N/S	
Law Enforcement	The Mission of the Office of Law Enforcement is to protect wildlife and plant resources through the effective enforcement of federal laws. By working with federal, state, tribal, foreign enforcement agencies, and other conservation partners, we combat wildlife trafficking, help recover endangered species, conserve migratory birds, preserve wildlife habitat, safeguard fisheries, prevent the introduction and spread of invasive species, and promote international wildlife conservation.	https://www.fws.gov/le/index.html	N/S	