

MITIGATION ASSISTANCE RESOURCE GUIDE

RESOURCES FOR FEDERAL, STATE AND NON-GOVERNMENTAL HAZARD MITIGATION SUPPORT



TRIBAL NATIONS



FEMA

ABOUT THE MITIGATION ASSISTANCE RESOURCE GUIDE

PURPOSE OF THE GUIDE

It is a goal of FEMA Region 5 to advance mitigation action across the region's six states and 34 tribal nations. Advancing mitigation action is not easy and requires significant, varying resources. These resources may include grants, loans, technical assistance and in-kind services, among others. Recognizing the many funding programs that currently exist across various federal departments and agencies, this guide was developed to compile this information and make it accessible to those who want to advance mitigation action in their communities.

The purpose of this Mitigation Assistance Resource Guide is to provide state and local officials with a spectrum of potential mitigation funding sources. This guide will assist officials in determining the best source(s) of funding and technical assistance for potential mitigation projects. For more information on available grants visit www.grants.gov.

HOW TO USE THE GUIDE

This guide provides federal, state and private-sector resources available in FEMA Region 5. The guide identifies each resource's primary recovery support function, which was established under the National Disaster Recovery Framework (NDRF). The support functions are aimed at restoration and revitalization. Detailed descriptions of each program are also provided, including information about the program, eligibility requirements and cost sharing.

The guide includes these six support functions with example mitigation actions:

Community Planning and Capacity Building support increases community recovery capacity and builds community planning resources needed to effectively plan for, manage and implement disaster recovery activities. Example mitigation activities associated with this Recovery Support Function (RSF) include developing a floodplain management plan and updating it regularly or developing a stormwater committee that meets regularly.

Economic Recovery support focuses on sustaining and/or rebuilding businesses, employment and tourism as well as the development of economic opportunities that result in sustainable and economically resilient communities. Example mitigation activities associated with this RSF include incorporating economic development activity restrictions in high-risk areas or developing a business continuity plan and updating it regularly.

Health and Social Services support assists in the restoration of public health, health care and social services networks to promote the resilience, health and well-being of affected individuals and communities. Example mitigation activities associated with this RSF include educating community members on hazards and how they can protect themselves or hardening critical facilities such as hospitals.

Housing support addresses post-disaster housing issues and coordinates the delivery of assistance resources and activities to rehabilitate and reconstruct destroyed and damaged housing, when feasible, as well as the development of accessible temporary and permanent housing. Example mitigation activities associated with this RSF include purchasing and maintaining flood insurance or relocating vulnerable housing structures out of high-risk areas.

Infrastructure Systems support facilitates efforts by infrastructure owners to achieve recovery goals relating to public engineering of these systems. Services should be restored to support a viable, sustainable community and improve resilience to and protection from future hazards. Example mitigation activities associated with this RSF include constructing revetments to protect against flooding or constructing and maintaining safe rooms.

Natural and Cultural Resources support addresses long-term environmental and cultural resource recovery needs. This includes the protection of these resources and historic properties through response and recovery actions to preserve, conserve, rehabilitate and restore them in a way that is consistent with community priorities and in compliance with applicable laws (FEMA, 2012). Example mitigation activities associated with this RSF include maintaining open space in the floodplain or protecting and enhancing landforms that serve as natural mitigation features (such as dunes, for example).

Additionally, the guide identifies the type of mitigation action that is best suited to the resource. The mitigation action categories are (1) Local Planning and Regulations, (2) Structure and Infrastructure Projects, (3) Natural Systems Protection, and (4) Education and Awareness Programs. This does not mean that the resource cannot be used for other types of mitigation action and is included to aid users to find the resource(s) that best suit their needs. More information on mitigation actions can be found in FEMA's [Mitigation Ideas report](#).

Each resource has its own page, which provides information about the program, eligibility requirements, cost sharing and an example of the program's use if possible. Each resource also highlights the primary type of mitigation action that can be funded using the program. This guide is intended to be updated annually to reflect changes to the programs identified, and the inclusion or removal of programs as needed. The goal is that this be a living document.

HAVE QUESTIONS?

Please contact Steve Greene at Steven.Greene@fema.dhs.gov or Sarah Halle at Sarah.Halle@mbakerintl.com. You can also reach out to [your State Hazard Mitigation Officer](#) (SHMO), who is responsible for organizing, developing and implementing the state's hazard mitigation program.

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CONNECTING MUNICIPAL FINANCING TO ADVANCE HAZARD MITIGATION

PARTNERING FOR SUCCESS: WORKING WITH YOUR COMMUNITY'S FINANCE PROFESSIONALS

Collaboration and partnership with finance professionals is central to the mitigation planning process. They can help you identify funding sources to make hazard mitigation plans a reality. Together, you can explore a variety of funding sources, including federal and state grants, state revolving loan programs, or bonds. Working closely with your local finance professionals offers many benefits. Involving them early in your planning process can help to ensure your community has a solid funding strategy to implement the hazard mitigation projects.

Local financial professionals often have diverse roles; they may oversee the community finance department and wear the hats of business administrator and/or financial officer:

- The business administrator reports to the governing body. Their responsibilities and functions vary by community. They may also serve as the municipal manager, chief of staff, or top appointed staff person. A business administrator will have awareness of local priorities, the history of decision making, constraints, and which departments and staff can make projects a success.
- A financial officer is often more specialized than a business administrator and primarily “keeps the books” for the community. Other responsibilities may include budget tracking, maintaining payroll records, balancing funds and crafting reports to aid administrative decisions.

Your local finance professionals’ deep understanding and connection to the community’s financial landscape can be a tremendous asset to mitigation projects. Their insight and connections can:

- Advise you and help to incorporate the mitigation project into longer-term planning within the community budget or Capital Improvement Plan (CIP).
- Make you better positioned to pursue limited mitigation funding. Your case for enhancing community resilience will be stronger when the projects are built into the community budget or CIP.
- Help you communicate with internal partners to share the value of preventative actions to keep the community safe, maintain operations, buttress revenues and reduce future losses.

CORE FINANCE PLANNING QUESTIONS

Financial professionals can help you think through several questions, such as:

- How will the community pay for or meet the match requirement? Can the community pursue a bond? Are there alternative sources of funding such as open space or stormwater management utilities?
- Can the project meet multiple community needs and provide co-benefits? If so, are there partner agencies that can also identify funding?
- What is the best timing for the project? Can the project be accomplished in the short term, or will it have to wait for more urgent priorities? What is the period of funding need?
- Are there other financial stressors that may prevent mitigation progress? When unexpected events occur, is there an option to revisit priorities in the CIP?
- Which staff can administer the project? Do you need to hire a contractor?
- What information do you need to complete the project scope? What are the requirements to bid the project (e.g., prevailing wage)?
- If you plan to remove buildings from high-hazard areas, how will this affect employment and your tax base? Will lost revenues hurt the community's credit rating? Do public safety and community resiliency take precedence over lost revenue?

Federal mitigation grants yield high dividends. According to the National Institute of Building Sciences [2019 Mitigation Saves Report](#), for every federal grant dollar spent in upfront mitigation costs, the public will save six dollars.

CONNECTING MUNICIPAL FINANCING TO ADVANCE HAZARD MITIGATION

COMMUNITY PLANNING AND ACCOUNTING METHODS

Community budgets represent community priorities. The budgeting process is one of the most important tasks of municipal government. The local governing body passes an annual budget that includes revenues and expenses, and establishes the amount of funding to programs and projects. The budget contents are analyzed and tracked.

CIPs itemize projects when (because of immediate priorities) the scale, method of funding, lead time for design and permitting, and possibly a host of other considerations will not be included in the current annual budget. For projects that have been identified for future years, the CIP is a document that provides details, funding and financing options.

The mitigation professional has a role in pitching mitigation projects during the development of the CIP. In this plan development process, the mitigation professional should meet with the financial professional to flesh out the project. This will help establish the timing for the project since the financial professional knows the most about the community's revenues, expenses and debt obligations. As a team, you will identify the likely funding sources, including those from grants.

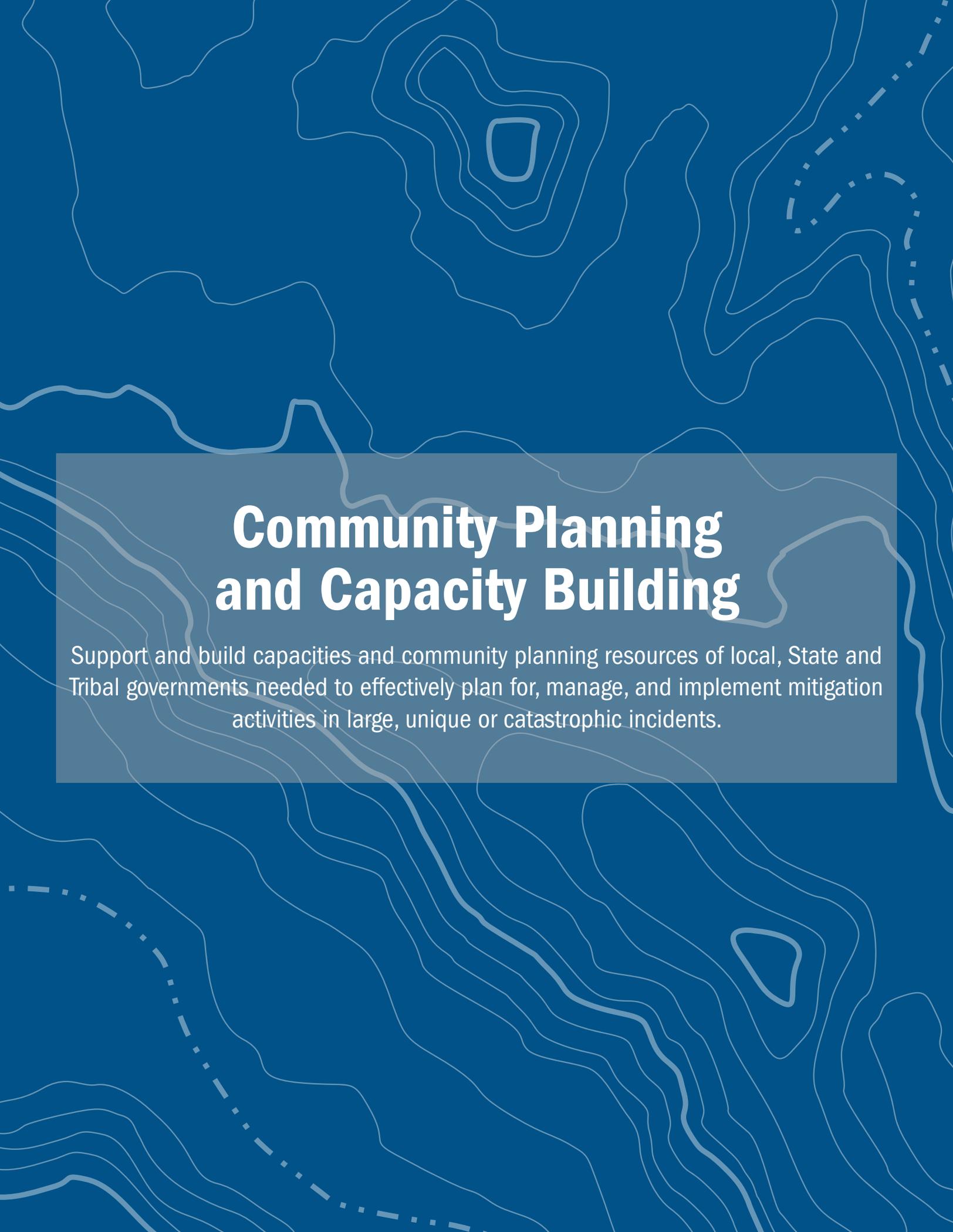
FUNDING MECHANISMS

Hazard mitigation projects can be funded by a variety of sources. Collaborating with a finance professional can help with identifying innovative ways to blend funding sources such as:

- Federal/state/non-governmental organization grants – Grants are a source of funding that typically require an application with detailed support. Federal, state and non-governmental organizations issue grants for pre- and post-disaster periods. The grant may not cover the full expense of the project and your community may be responsible for matching the grant amount. Your finance professional will help you review the terms of the grant and determine the most appropriate method to match the grant.
- State revolving loan programs – Revolving loan programs have been successful nationwide in addressing infrastructure demands. In some cases, federal funding has been allocated to states to establish a low or no interest loan program, or states have issued debt to finance state programs. Unlike grants, the loan must be repaid, subject to certain relief in interest, so that the funding goes back into the program for reuse.
- General obligation bonds – This is debt issued by local governments that raise money for projects. General obligation bonds are commonly used and are familiar to your financial professional. Communities typically apply property, sales and/or income taxes to pay investors principal and interest. A caution should be observed as the bond is backed by the “full faith and credit of the municipality” and this signifies that the government, should the budget be incapable of servicing the debt, would have to increase taxes to guarantee the bond is paid.
- Other sources of funding – There may be additional sources of funding, such as fees, assessments, other bonding instruments and private investment, that are not identified in the above. Speak to your financial professional about the universe of funding mechanisms.

MITIGATION FUNDING AT EVERY LEVEL IN GRANITE FALLS, MN

To implement its mitigation strategy, the city of Granite Falls, MN identified 10 local, state and federal sources for funding mitigation projects across the city. Granite Falls used local tax increment financing (TIF) and private investment for some mitigation projects. From state and federal sources, it received nearly \$38 million over two decades. The city used those funds to reduce risk to residential, commercial and governmental structures, to reconstruct a flood wall, to buy and demolish at-risk structures, and much more.

The background of the entire page is a topographic map with white contour lines on a dark blue background. The lines represent elevation and terrain, with some dashed lines indicating specific paths or boundaries. The map is centered and covers the entire area.

Community Planning and Capacity Building

Support and build capacities and community planning resources of local, State and Tribal governments needed to effectively plan for, manage, and implement mitigation activities in large, unique or catastrophic incidents.

Emergency Management Performance Grants (EMPG)

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	State, local, tribal, and territorial governments.
Type of Assistance Provided	Financial Assistance
Restrictions	<p>Grant funds may not be used for the purchase of prohibited equipment. Refer to Information Bulletin 407, Use of Grant Funds for Controlled Equipment, for the complete list of prohibited equipment. For additional information, see Executive Order (EO) 13688, Federal Support for Local Law Enforcement Equipment Acquisition, and the Recommendations Pursuant to Executive Order 13688.</p> <ul style="list-style-type: none"> · Expenditures for weapons systems and ammunition. · Costs to support the hiring of sworn public safety officers for fulfilling traditional public safety duties or to supplant traditional public safety positions and responsibilities. · Activities and projects unrelated to the completion and implementation of the EMPG program.
Funding Available	\$355,100,000 (FY 2021)
Cost Sharing	The recipient contribution can be cash (hard match) or third-party in-kind (soft match). Eligible EMPG program applicants shall agree to make available non-federal funds to carry out an EMPG award in an amount not less than 50% of the total project cost.
Website	https://www.fema.gov/grants
Contact Name	Tami Phillips, Grants Management Division
Contact Address	536 S. Clark Street Chicago, IL 60606
Contact Phone	312-408-5338
Contact Email	Tambrete.phillips@fema.dhs.gov

About the Resource

The purpose of the EMPG Program is to provide Federal funds to states to assist state, local, tribal and territorial governments in preparing for all hazards, as authorized by Section 662 of the Post Katrina Emergency Management Reform Act (6 U.S.C. § 762) and the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §§ 5121 et seq.). Title VI of the Stafford Act authorizes FEMA to make grants for the purpose of providing a system of emergency preparedness for the protection of life and property in the United States from hazards and to vest responsibility for emergency preparedness jointly in the federal government, states, and their political subdivisions. The federal government, through the EMPG Program, provides necessary direction, coordination, and guidance, and provides necessary assistance, as authorized in this title, to support a comprehensive all-hazards emergency preparedness system. The EMPG Program will provide federal funds to assist state, local, tribal, and territorial emergency management agencies to obtain the resources required to support the National Preparedness Goal's (the Goal) associated mission areas and core capabilities.

Case Study or Best Practice

FEMA awarded more than \$9 million to Michigan to assist the state in preparing to respond to all-hazards and enhancing their emergency management capabilities. Read more about this award here: <https://www.fema.gov/press-release/20210318/fema-awards-9-million-preparedness-grant-michigan>.

Building Resilient Infrastructure and Communities (BRIC)

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	Indian tribal governments are eligible to apply directly to FEMA for federal assistance under BRIC as an applicant or through the state as a subapplicant. Indian tribal governments that have had a major disaster declaration under the Stafford Act in the seven years prior to the annual application period start date or are entirely or partially located in a state that had a major disaster declaration in the seven years prior to the annual application period start date are eligible to apply as applicants.
Type of Assistance Provided	Financial Assistance
Restrictions	Review the Before You Apply page for the BRIC program, found here: https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/before-apply .
Funding Available	On an annual basis, FEMA will assess the amount of funding set aside for BRIC. They will then determine what portion of that amount will be available during the following application period for the BRIC program. FEMA will announce its determination in the annual Notice of Funding Opportunity for the BRIC program. \$500 million was available for FY20.
Cost Sharing	Unknown at this time. Cost sharing requirements will be provided with the annual Notice of Funding Opportunity.
Website	https://www.fema.gov/bric
Contact Name	Morgan Holloway
Contact Address	536 S. Clark Street 6th Floor Chicago, IL 60605
Contact Phone	312-408-5500, 312-408-5427
Contact Email	Morgan.Holloway@fema.dhs.gov

About the Resource

Building Resilient Infrastructure and Communities (BRIC) is designed to 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 and is a result of amendments made to Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) by Section 1234 of the Disaster Recovery Reform Act of 2018 (DRRA).

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.

Case Study or Best Practice

Humboldt County, California

The Blue Lake Rancheria Tribe leveraged public-private partnerships to invest in a low-carbon, community-scale microgrid after recognizing the need for resilient infrastructure in a geographically isolated area where power interruptions and outages are frequent. Today, the renewable energy microgrid powers a six-building campus of the Tribe's most critical infrastructure including government offices, water and wastewater systems, and an event center, which doubles as a certified American Red Cross emergency shelter in times of need. The Blue Lake Rancheria Tribe partnered with the California Energy Commission, Humboldt State University's Schatz Energy Research Center, Idaho National Laboratory, Pacific Gas and Electric, and several private-sector partners to complete the large-scale project.

Although the project was not funded through FEMA HMA programs, it is an example of an eligible infrastructure project that may be funded through the BRIC program. It also provides an example of how communities may accomplish mitigation through strong partnerships.

Community Challenge Planning Grants

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	Local municipalities. A list of the grantee and applicant list from 2011 can be found here: https://www.hud.gov/sites/documents/2011CHALAWARDPSSAPPLICANTS.PDF
Type of Assistance Provided	Technical Assistance, Education/Outreach
Restrictions	Restrictions on the funding can be found in the NOFA. These grants cannot be used to substitute funding already pledged to support land use, community development, housing, transportation planning, and other planning activities.
Funding Available	The maximum grant amount per project is \$3,000,000, and the minimum grant amount is \$100,000.
Cost Sharing	Not identified
Website	https://www.hud.gov/program_offices/economic_development/HUD-DOT_Community_Challenge_Grants
Contact Name	Regional and state contacts can be found here: https://www.hud.gov/program_offices/field_policy_mgt/localoffices
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

HUD's Community Challenge Planning Grant Program fosters reform and reduces barriers to achieving affordable, economically vital, and sustainable communities. Such efforts may include amending or replacing local master plans, zoning codes, and building codes, either on a jurisdiction-wide basis or in a specific neighborhood, district, corridor, or sector to promote mixed-use development, affordable housing, the reuse of older buildings and structures for new purposes, and similar activities with the goal of promoting sustainability at the local or neighborhood level. This program also supports the development of affordable housing through the development and adoption of inclusionary zoning ordinances and other activities to support planning implementation.

Note: this resource has not been updated since 2011.

Case Study or Best Practice

Washtenaw County, Michigan

In 2011, the county of Washtenaw was awarded \$3,000,000 for the Washtenaw County Sustainable Community project. Today, 64% of the residents in Washtenaw County live in the urban core, which runs from Ann Arbor (largest city) to Ypsilanti (second largest city), connected by Washtenaw Avenue. This corridor is the busiest road in the county, yet few housing options presently exist directly on the corridor, with mostly low-density neighborhoods in their place. The goal of this project was to remove barriers and create a coordinated approach to affordable and energy-efficient housing, as well as to connect these affordable housing options to job centers and healthy food through via an enhanced multimodal transportation corridor. By strengthening public transit and non-motorized travel modes, this project rectifies the disparity between isolated segments of the community, provides a catalyst for revitalization efforts with green building practices, increases energy efficiency, reduces housing costs in rental housing, and enhances connections to job centers for low-income and working class residents.

Federal Excess Personal Property (FEPP) Program

Agency or Organization	U.S. Forest Service (USFS)
Resource Type	Loan
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Local firefighting organizations.
Type of Assistance Provided	Technical Assistance
Restrictions	Not identified
Funding Available	Not identified
Cost Sharing	Not identified
Website	https://www.fs.fed.us/managing-land/fire/fepp
Contact Name	Anne Ball
Contact Address	626 East Wisconsin Ave Milwaukee, WI 53202
Contact Phone	414-297-1834
Contact Email	Aball@fs.fed.us

About the Resource

The program is administered by the USFS with delivery through the State Forester. The FEPP program re-utilizes excess federal property obtained from the military and other federal sources for use in rural and wildland firefighting. This equipment is loaned by agreement to State Foresters who can sub-loan it to local firefighting organizations. The benefits of the program include:

- Enhances state and local fire protection capabilities by providing important equipment at a fraction of the cost of purchasing new or used.
- Complements the State Fire Assistance Program and the Volunteer Fire Assistance Program to improve the efficiency and effectiveness of fire protection across ownerships.
- Forest Service personnel can assist by identifying excess property that may be used by state and local fire organizations and by encouraging local fire departments to pursue needed equipment through this program.

Case Study or Best Practice

No case study or best practice exists for this program. Review the 2020 acquisitions by state here:

<https://www.fs.usda.gov/sites/default/files/2020-07/Acquisitions%20by%20State%20Year%20Summary.pdf>.

Forest Stewardship Program

Agency or Organization	U.S. Forest Service (USFS)
Resource Type	Technical
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Non-industrial private forest landowners.
Type of Assistance Provided	Technical Assistance, Education/Outreach
Restrictions	Not applicable for this program.
Funding Available	Not applicable for this program.
Cost Sharing	Not applicable for this program.
Website	https://www.fs.fed.us/managing-land/private-land/forest-stewardship/
Contact Name	Dennis McDougall
Contact Address	1992 Folwell Avenue St. Paul, MN 55108
Contact Phone	651-649-5182
Contact Email	dmcdougall@fs.fed.us

About the Resource

The Forest Stewardship Program encourages long-term stewardship of important state and private forest landscapes by assisting landowners to more actively manage their forest and related resources. The program provides assistance to owners of forest land and other lands where good stewardship, including agroforestry applications, will enhance and sustain the long-term productivity of multiple forest resources and produce healthy, resilient forest landscapes. Special attention is given to landowners in landscape areas identified by State Forest Action Plans and those new to, or in the early stages of, managing their land in a way that embodies multi-resource stewardship principles. The program provides landowners with professional planning and technical assistance they need to keep their land in a productive and healthy condition. Assistance offered through the Forest Stewardship Program also provides landowners with enhanced access to other USDA conservation programs, forest certification programs, and forest product and ecosystem service markets.

See contact information as well as State Coordinators: <https://www.fs.fed.us/about-agency/contact-us/forest-stewardship-state-coordinators>.

Case Study or Best Practice

Little Falls, Minnesota (2018)

The Mississippi River meets the watersheds of four other major tributaries at National Guard base Camp Ripley in Minnesota. This is an improper drinking water source. USDA FSP, Camp Ripley, and Minnesota agencies partnered to promote natural resource sustainability in areas around military bases. Specifically, FSP helped 260 private landowners develop forest management plans encouraging tree health, wildlife habitat sustainability, and income generation.

Community Development Block Grant (CDBG) Disaster Recovery

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Under most CDBG-DR appropriations, funds may be made available to states, units of general local government, Indian tribes, or insular areas.
Type of Assistance Provided	Technical Assistance, Financial Assistance, Education/Outreach
Restrictions	Each activity must be CDBG-eligible, address a disaster-related impact in a county that has received a Presidential disaster declaration, and meet a national objective. Eligible grantees are states, units of general local government, Indian tribes, and insular areas.
Funding Available	The available funding is determined based upon the disaster declaration.
Cost Sharing	Varies depending on the cost type. More information on costs can be found here: https://www.hudexchange.info/resources/documents/CDBG-DR-Cost-Types-Summary.pdf .
Website	https://www.hudexchange.info/programs/cdbg-dr/
Contact Name	Contact specific to disaster: https://www.hudexchange.info/programs/cdbg-dr/cdbg-dr-grantee-contact-information/#all-disasters
Contact Address	451 7th Street S.W., Washington, DC 20410
Contact Phone	202-708-1112
Contact Email	Contact specific to disaster: https://www.hudexchange.info/programs/cdbg-dr/cdbg-dr-grantee-contact-information/#all-disasters

About the Resource

In response to presidentially declared disasters, Congress may appropriate additional funding for the CDBG Program as Disaster Recovery (CDBG-DR) grants to rebuild areas affected by a disaster and provide crucial seed money to start the recovery process. Since CDBG-DR assistance may fund a broad range of recovery activities, HUD helps communities and neighborhoods that otherwise might not recover due to limited resources. CDBG-DR is a presidentially declared appropriation, rather than an annual appropriation, and regulations can be found in 24 Code of Federal Regulations 570 with Federal Register Notices for each CDBG-DR appropriation. CDBG-DR funds can be used for disaster relief, long-term recovery, restoration of infrastructure, housing, and economic revitalization.

Case Study or Best Practice

Cleveland County, Oklahoma

Cleveland County sustained significant damages from the various tornadoes, wildfires, flooding, straight-line winds, and winter storms that occurred between 2011 and 2013. To assist in the community's recovery process, HUD awarded CDBG-DR funding to Cleveland County under the Disaster Relief Appropriations Act. During active recovery, localities hire contractors to perform construction, administration, and other tasks. However, CDBG-DR fund recipients must follow very specific, yet complicated federal procurement rules, as well as state and local government laws and regulations. Grantees must also verify this compliance through accurate reporting and recordkeeping. As each program has its own set of regulations, it is critical to have adequate staff who are prepared to ensure compliance at each step and keep accurate records for HUD's periodic reviews and audits.

Cleveland County initially tried implementing HUD CDBG-DR programs without a program administrator, but quickly realized that the county needed assistance. IBTS was brought on as a subrecipient in May of 2016 to help the county remain in compliance and carry out projects under this funding. The subrecipient agreement was the first of its kind signed in the United States and made the consultant responsible for carrying out permitted activities in conformance with applicable CDBG-DR requirements. The subrecipient partnership is permitted under the CDBG-DR program only if the subrecipient is a nonprofit organization. Through this agreement, the subrecipient handles complete oversight of compliance and eligibility activities. This includes program oversight for engineering and construction activities such as:

- Contractor change orders.
- Monthly Davis-Bacon compliance monitoring.
- Contractor payment application approvals.
- Review of environmental studies.
- HUD approvals for identified projects.

By contracting with a subrecipient, Cleveland County was able to navigate the complexity of regulations associated with the program objectives, in addition to managing the budget more efficiently. Over the course of just one year of partnership, the county realized a surplus of \$305,000 CDBG-DR funds that can be of use in the remaining six projects. Specialized consultants can help localities continue to take progressive measures even after long-term recovery is complete, improving on problem areas and incorporating successful strategies into the county's disaster response and recovery procedures.

Flood Plain Management Services (FPMS) Program

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	State, regional, and local governments, Indian tribes, and other non-federal public agencies.
Type of Assistance Provided	Technical Assistance, Financial Assistance, Education/Outreach
Restrictions	None identified
Funding Available	Changes with fiscal year and is also dependent upon the services requested.
Cost Sharing	None. State and local governments can receive technical assistance free of charge. Program services are also offered to non-water resource federal agencies and to the private sector on a 100% cost recovery basis. For most of these requests, payment is required before services are provided.
Website	https://www.nae.usace.army.mil/missions/public-services/flood-plain-management-services/
Contact Name	Terry Zien
Contact Address	180 5th Street East Suite 700 St. Paul, MN 55101
Contact Phone	651-290-5807
Contact Email	terry.r.zien@usace.army.mil

About the Resource

Under the authority provided by Section 206 of the 1960 Flood Control Act (PL 86-645), as amended, the USACE can provide the full range of technical services and planning guidance that is needed to support effective floodplain management. General technical assistance efforts under this program include determining site-specific data on obstructions to flood flows, flood formation, and timing; flood depths, stages, or floodwater velocities; the extent, duration, and frequency of flooding; information on natural and cultural floodplain resources; and flood loss potentials before and after the use of floodplain management measures. The types of studies that have been conducted under the FPMS program include floodplain delineation/hazard, dam failure analyses, hurricane evacuation, flood warning, floodway, flood damage reduction, stormwater management, flood proofing, and inventories of flood prone structures.

Case Study or Best Practice

In 2008, the Huntington District Floodplain Management Services Team created a Spatially Enabled FPMS Call Log Database to process calls received by the District's tollfree number. Since its inception, the database has logged 324 calls. Of those, two originated from Virginia, 27 from Kentucky, 80 from Ohio, and 215 from West Virginia. Calls cover a broad range of categories. In addition to calls about its FPMS program, the District receives inquiries about floodplain impacts on large development projects, federal property rentals, FEMA Digital Flood Insurance Rate Map determinations, Base Flood Elevation requests, miscellaneous map requests, and general questions about the USACE and the NFIP.

More information on best practices can be found at: <https://www.hsdil.org/?view&did=773470>.

Community Development Block Grant (CDBG) State Program

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	States
Type of Assistance Provided	Financial Assistance
Restrictions	Information on the eligible grantees and projects can be found here: https://www.hudexchange.info/programs/cdbg-state/state-cdbg-program-eligibility-requirements/ , as well as here: https://www.hudexchange.info/resource/2179/guide-national-objectives-eligible-activities-state-cdbg-programs/ .
Funding Available	Appropriated each year. More information can be found here: https://www.hudexchange.info/programs/cdbg-state/ .
Cost Sharing	States may use \$100,000 plus up to 50% of costs incurred for program administration, up to a maximum of 3% of its CDBG allocation. Amounts expended on administration in excess of \$100,000 must be matched. States may expend up to 3% of their CDBG allocation on technical assistance activities. However, the total a state spends on both administrative and technical assistance expenses may not exceed 3% of the state's allocation.
Website	https://www.hudexchange.info/programs/cdbg-state/
Contact Name	Eastern Woodlands Office Mark Butterfield, Administrator
Contact Address	77 West Jackson Boulevard Room 2404 Chicago, IL 60604
Contact Phone	312-913-8750
Contact Email	Mark.Butterfield@hud.gov

About the Resource

Under the State CDBG Program, states award grants to smaller units of general local government to develop and preserve decent affordable housing, to provide services to the most vulnerable in our communities, and to create and retain jobs. Annually, each state develops funding priorities and criteria for selecting projects.

Case Study or Best Practice

DuPage County, Illinois

The "Home is Where the Heart is" Group Home Project. A new Community Integrated Living Arrangement (CILA) group home for six extremely low-income adults with severe intellectual and developmental disabilities. Residents of this group home receive much-needed housing as well as life skills training, enabling them to achieve their potential, advance their independence, and participate as full members of the community.

More project profiles from Region V and across the country can be found at: <https://www.hudexchange.info/programs/cdbg/project-profiles/>.

Community Development Block Grant (CDBG) Mitigation

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Grant
Primary Recovery Function	Community Planning and Capacity Building
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	States, units of general local government, Indian tribes, or insular areas.
Type of Assistance Provided	Technical Assistance, Financial Assistance, Education/Outreach
Restrictions	Unknown at this time.
Funding Available	The 2019 Federal Register notice allocates \$6.87 billion in mitigation funds to nine states and five localities recovering from 2015, 2016 and 2017 natural disasters.
Cost Sharing	Unknown at this time.
Website	https://www.hudexchange.info/programs/cdbg-mit/overview/
Contact Name	Jessie Handforth Kome, Acting Director, Office of Block Grant Assistance
Contact Address	451 7th Street S.W., Room 7282 Washington, DC 20410
Contact Phone	202-402-3587
Contact Email	disaster_recovery@hud.gov

About the Resource

CDBG-Mitigation funds represent a unique and significant opportunity for grantees to use this assistance in areas impacted by recent disasters to carry out long-term strategic and high-impact activities to mitigate disaster risks and reduce future losses. While it is impossible to eliminate all risks, these funds will enable grantees to mitigate disaster risks, while at the same time allowing grantees the opportunity to transform state and local planning.

Case Study or Best Practice

As this is a new program, no best practice or case study yet exists. More information on the program and the ideal types of projects, see the Federal Register notice at: <https://files.hudexchange.info/resources/documents/FR-6109-N-02-CDBG-Mitigation-Notice.pdf>

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Economic Recovery

Help local, State and Tribal governments and the private sector sustain and/or rebuild businesses and employment, and develop economic opportunities that result in sustainable and economically resilient communities after hazard events.

EDA and Disaster Recovery

Agency or Organization	U.S. Department of Commerce, U.S Economic Development Administration (EDA)
Resource Type	Technical
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Education and Awareness Programs
Eligible Applicants	See the Disaster Supplemental Funding resource for further information.
Type of Assistance Provided	Technical Assistance, Education/Outreach
Restrictions	See the Disaster Supplemental Funding resource for further information.
Funding Available	See the Disaster Supplemental Funding resource for further information.
Cost Sharing	See the Disaster Supplemental Funding resource for further information.
Website	https://www.eda.gov/programs/disaster-recovery/
Contact Name	Jeannette Tamayo, Regional Administrator
Contact Address	230 South Dearborn Street Suite 3280 Chicago, IL 60604
Contact Phone	312-353-8143
Contact Email	jtamayo@eda.gov

About the Resource

EDA has a long history of successfully supporting disaster recovery and resiliency efforts. EDA's role in disaster recovery is to facilitate the timely and effective delivery of Federal economic development assistance to support long-term community economic recovery planning and project implementation, redevelopment, and resiliency. EDA is uniquely positioned to coordinate regional disaster recovery efforts in partnership with its extensive network of Economic Development Districts (EDDs), University Centers, institutions of higher education, and other partners in designated impact areas. EDA has made \$587 million available for disaster recovery grants for communities experiencing economic distress or harm from Hurricanes Florence, Michael, and Lane; Typhoons Yutu and Mangkhut; and from wildfires, volcanic eruptions, earthquakes, and other natural disasters occurring in calendar year 2018, and tornadoes and floods occurring in calendar year 2019.

Case Study or Best Practice

An article posted in February 2020 provides information on the use of the program in Missouri following a Disaster Declaration in 2019.

This article can be found at: <https://www.eda.gov/success-stories/disaster/stories/mo-businesses.htm>.

Section 108 Loan Guarantee Program

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Loan
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	States, metropolitan cities and urban counties (i.e., CDBG entitlement recipients), nonentitlement communities that are assisted in the submission of applications by states that administer the CDBG program, and nonentitlement communities eligible to receive CDBG funds under the HUD-Administered Small Cities CDBG program (Hawaii). The public entity may be the borrower or it may designate a public agency as the borrower.
Type of Assistance Provided	Financial Assistance
Restrictions	Projects funded with Section 108 loans must meet basic CDBG criteria, including meeting a national objective and public benefits standards. Projects are also subject to compliance with all other local, state, or federal regulations, including cross cutting regulations.
Funding Available	In 2017, \$716,599,390 was allocated to FEMA Region 5 states. Current availability of funding can be found here: https://www.hudexchange.info/resource/5197/current-availability-of-section-108-financing-cdbg-entitlement-and-State-grantees/ .
Cost Sharing	Not applicable to this program.
Website	https://www.hudexchange.info/programs/section-108/
Contact Name	Regional and state contacts can be found here: https://www.hud.gov/program_offices/field_policy_mgt/localoffices
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The Section 108 Loan Guarantee Program (Section 108), of the Housing and Community Development Act of 1974, provides communities with a source of financing for economic development, housing rehabilitation, public facilities, and other physical development projects, including improvements to increase their resilience against natural disasters. The flexibility of the program makes it one of the most important public investment tools that HUD offers to state and local governments. Section 108 offers state and local governments the ability to transform a small portion of their Community Development Block Grant (CDBG) funds into federally guaranteed loans large enough to pursue physical and economic revitalization projects capable of revitalizing entire neighborhoods.

Case Study or Best Practice

The state of Indiana received \$30 million in 2013 for their Community Enhancement and Economic Development Loan Fund. The state of Indiana's Office of Community Rural Affairs and the Indiana Housing and Community Development Authority will use Section 108 loan funds to capitalize a Community Enhancement and Economic Development Loan Fund to make loans to non-entitlement units of local government throughout the state. The non-entitlement units of local government will either re-lend the Section 108 guaranteed loan funds to third-party for-profit and nonprofit businesses, including Community-Based Development Organizations; use the funds directly; or deploy the funds through a subrecipient to carry out a variety of activities. Loans range between \$1 million and \$7 million.

More information on this best practice can be found at <https://www.hudexchange.info/resources/documents/2013-Section-108-Guaranteed-Loan-Program-Overview.pdf>.

Disaster Assistance and Emergency Relief for Individuals and Businesses

Agency or Organization	Internal Revenue Service (IRS)
Resource Type	Tax Relief
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	U.S. taxpayers, including individuals and businesses affected by federally declared disasters.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	Varies depending on the entity.
Funding Available	Not applicable to this program.
Cost Sharing	Not applicable to this program.
Website	https://www.irs.gov/businesses/small-businesses-self-employed/disaster-assistance-and-emergency-relief-for-individuals-and-businesses
Contact Name	Internal Revenue Service
Contact Address	Contact your local office here: https://www.irs.gov/help/contact-your-local-irs-office .
Contact Phone	See above
Contact Email	See above

About the Resource

Special tax law provisions may help taxpayers and businesses recover financially from the impact of a disaster, especially when the federal government declares their location to be a major disaster area. Depending on the circumstances, the Internal Revenue Service (IRS) may grant additional time to file returns and pay taxes. Both individuals and businesses in a federally declared disaster area can get a faster refund by claiming losses related to the disaster on the tax return for the previous year, usually by filing an amended return. The IRS also offers audio presentations on planning for disaster. These presentations discuss business continuity planning, insurance coverage, record keeping, and other tips to stay in business after a major disaster.

Case Study or Best Practice

Publication 976 lists information about IRS disaster relief, for example assistance during hurricanes Harvey and Irma, California wildfires, and other disasters. This can be found at: <https://www.irs.gov/publications/p976>.

Additionally, Publication 547 provides example claims to help applicants understand if they qualify and how to complete the application. This can be found at: <https://www.irs.gov/pub/irs-pdf/p547.pdf>.

Tree Assistance Program (TAP)

Agency or Organization	U.S. Department of Agriculture (USDA) Farm Service Agency (FSA)
Resource Type	Grant
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Orchardists and nursery tree growers that have: <ul style="list-style-type: none"> · Suffered qualifying tree, bush, or vine losses in excess of 15% mortality for the stand (adjusted for normal mortality) from an eligible natural disaster; · Owned the eligible trees, bushes, and vines when the natural disaster occurred, but eligible growers are not required to own the land on which eligible trees, bushes and vines are planted; and · Replaced eligible trees, bushes, and vines within 12 months from the date the TAP application is approved.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	There are restrictions for what is considered an Eligible Tree Type, an Eligible Loss, and an Eligible Producer. This information can be found here: https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/tree_assistance_program-tap-fact_sheet.pdf .
Funding Available	For losses that occurred on or after January 1, 2017, there is no payment limitation for TAP.
Cost Sharing	None identified
Website	https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/tree-assistance-program/index
Contact Name	Shayla Watson-Porter
Contact Address	1400 Independence Avenue, S.W. STOP 0506 Washington, DC 20250
Contact Phone	202-690-2350
Contact Email	shayla.watson-porter@wdc.usda.gov

About the Resource

The TAP provides financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate eligible trees, bushes, and vines damaged by natural disasters occurring on or after Jan. 1, 2008, and before Oct. 1, 2011. TAP was authorized by the 2008 Farm Bill and is funded through the Agricultural Disaster Relief Trust Fund. TAP provides funds for those orchardists and nursery tree growers who have suffered qualifying damage in excess of 15% from an eligible natural disaster, owned their plants at the time of the disaster, and will replace said trees, bushes, and vines within 12 months of application approval.

Case Study or Best Practice

Florida (2018)

Citrus growers in Florida who sustain mortality losses due to citrus greening must meet the eligible loss criteria above. Since citrus greening is a disease, mortality related to citrus greening may be assessed over a six-year period. The loss period due to citrus greening begins when the grower first recognizes the disease in the stand and ends when an infected tree becomes either biologically dead or no longer commercially viable. Under the Florida request as approved, citrus growers are allowed to choose one of the following options for TAP participation:

- Option 1: Apply for TAP during any year in which the stand sustained a mortality loss in excess of 15% after adjustment for normal mortality. If the grower chooses this option, the grower would contact their FSA administrative county to report the percentage of trees they wished to replace prior to tree removal. An FSA representative will perform a field visit to verify the actual loss.
- Option 2: If tree mortality of 15% (after adjustment for normal mortality) has not been met, the grower may accumulate mortality over multiple years (not to exceed a total of six) and apply for TAP at that time. Growers should contact their FSA county office to report greening. Further, growers are required to document annually (up to six years) the total number of lost trees.

Although TAP allows producers to request assistance when multiple losses from subsequent disaster events occur, growers who receive a TAP payment due to citrus greening will not be eligible for additional TAP payments on the resets (newly planted trees) until they have reached the age of maturity (six years of age).

More information on this case study can be found at:

https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/2018/tap_florida_citrus_greening_fact_sheet_may_2018.pdf.

Disaster Supplemental Funding

Agency or Organization	U.S. Department of Commerce, U.S Economic Development Administration (EDA)
Resource Type	Grant
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	District Organization; Indian tribe or a consortium of Indian tribes; state, county, city, or other political subdivision of a State, including a special purpose unit of a state or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions; institution of higher education or a consortium of institutions of higher education; or public or private nonprofit organization or association acting in cooperation with officials of a political subdivision of a state.
Type of Assistance Provided	Financial Assistance
Restrictions	Proposed projects must serve areas where a Presidential declaration of a major disaster was issued under the Robert T. Stafford Disaster Relief and Emergency Assistance Act in 2017.
Funding Available	\$587 million was available in FY 2018.
Cost Sharing	A match is required, but the percentage match is not identified.
Website	https://www.eda.gov/programs/disaster-recovery/2018-supplemental/
Contact Name	Jeannette Tamayo, Regional Administrator
Contact Address	231 South Dearborn Street Suite 3281 Chicago, IL 60605
Contact Phone	312-353-8144
Contact Email	jtamayo@eda.gov

About the Resource

In June 2019, Congress passed the Additional Supplemental Appropriations for Disaster Relief Act, 2019, providing EDA with \$600 million in additional Economic Adjustment Assistance (EAA) Program funds for necessary expenses related to flood mitigation, disaster relief, long-term recovery, and restoration of infrastructure in areas impacted by Hurricanes Florence, Michael, and Lane; Typhoons Yutu and Mangkhut; wildfires and other calendar year 2019 disasters under the Stafford Act; and tornadoes and floods in calendar year 2019. This funding is in addition to EDA's Disaster Supplemental Funding for 2017 disasters.

Case Study or Best Practice

\$587 million available to eligible grantees in communities impacted by 2017 natural disasters. More information on funding for the 2017 disasters can be found here: <https://www.eda.gov/disaster-recovery/supplemental/2017/>.

Disaster Loan Program

Agency or Organization	U.S. Small Business Administration (SBA)
Resource Type	Loan
Primary Recovery Function	Economic Recovery
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Businesses of all sizes, private nonprofit organizations, homeowners, and renters.
Type of Assistance Provided	Financial Assistance
Restrictions	Varies depending on the borrower. More information can be found here: https://disasterloan.sba.gov/ela/Documents/Three_Step_Process_SBA_Disaster_Loans.pdf .
Funding Available	Businesses may borrow up to \$2 million and homeowners may borrow up to \$200,000 to repair/replace a disaster-damaged private residence, or \$40,000 for a homeowner or renter to repair/replace damaged personal property.
Cost Sharing	Not applicable to this program.
Website	https://disasterloan.sba.gov/ela/Information/Index
Contact Name	Michael Lampton, Public Affairs Manager
Contact Address	233 Peachtree Center Avenue NE #1900 Atlanta, GA 30303
Contact Phone	404-331-0333 ext. 2177
Contact Email	Michael.Lampton@sba.gov

About the Resource

The SBA provides low-interest disaster loans to businesses of all sizes, private nonprofit organizations, homeowners, and renters. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.

Case Study or Best Practice

SBA's Disaster Loan Program was a large provider of post-Hurricane Sandy disaster loans. As a result of the high volume of loans, Congress passed the Disaster Relief Appropriations Act of 2013, which appropriated \$779 million to the SBA for disaster assistance. SBA provided different loans depending on the applicant - homeowner loans as well as business loans.

More information on this case study can be found at: <https://www.cpajournal.com/2016/11/23/small-business-administrations-hurricane-sandy-disaster-loan-program/>.

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Housing

Address pre- and post-disaster housing issues and coordinate and facilitate the delivery of resources and activities to assist local, State and Tribal governments in the rehabilitation and reconstruction of destroyed and damaged housing, whenever feasible, and development of other new accessible, permanent housing options.

Housing Preservation Grants

Agency or Organization	U.S. Department of Agriculture (USDA) Rural Housing Service (RHS)
Resource Type	Grant
Primary Recovery Function	Housing
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	State agencies, units of local government, Native American tribes, and nonprofit organizations. Eligible areas include rural towns with 20,000 or fewer people and federally recognized tribal lands. Eligible addresses can be searched here: https://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do .
Type of Assistance Provided	Financial Assistance
Restrictions	Applicants provide grants or low-interest loans to repair or rehabilitate housing for low- and very-low-income homeowners. Rental property owners may also receive assistance if they agree to make units available to low- and very-low-income families. Eligible expenses include: <ul style="list-style-type: none"> · Repairing or replacing electrical wiring, foundations, roofs, insulation, heating systems, and water/waste disposal systems. · Handicap accessibility features. · Labor and materials. · Administrative expenses. For a complete list, see the Code of Federal Regulations (CFR) 1944.664.
Funding Available	Information is not available at a national level. More information can be found here: https://www.govinfo.gov/content/pkg/FR-2018-06-25/pdf/2018-13458.pdf .
Cost Sharing	Not a requirement. More information can be found here: https://www.govinfo.gov/content/pkg/FR-2018-06-25/pdf/2018-13458.pdf .
Website	https://www.rd.usda.gov/programs-services/housing-preservation-grants
Contact Name	Contacts organized by state: https://www.rd.usda.gov/contact-us/State-offices
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The Housing Preservation Grant (HPG) program provides grants to sponsoring organizations for the repair or rehabilitation of low- and very low-income housing. The grants are competitive and are made available in areas where there is a concentration of need. Those assisted must own very low- or low-income housing, either as homeowners, landlords, or members of a cooperative. Very low income is defined as below 50% of the area median income (AMI); low income is between 50 and 80% of AMI.

Case Study or Best Practice

The residents of the rural community of Depoe Bay on the Oregon coast are no strangers to earthquakes. Most of the tremors they experience are small, but in the event of a major quake, they would depend on their local emergency responders for assistance. The 40-year-old, three-story Depoe Bay fire station, however, was outdated and not accessible for people with disabilities, and it no longer met the latest standards in seismic safety. Updating the building would be a significant undertaking, especially for this small, rural district. At the same time, they also had to manage the cost of replacing their vehicles more frequently than departments in other areas of the State due to the corrosion caused by the salt-laden ocean spray.

With the help of a \$1.8 million loan and a \$74,900 grant provided by USDA Rural Development through its Community Facilities Program, as well as \$831,318 from the state's Seismic Rehabilitation Grant Program, the Depoe Bay Rural Fire Protection District was able to fully renovate Fire Station 2300. This essential Depoe Bay facility is now seismically sound and compliant with the Americans with Disability Act standards. During those critical repairs, they also updated the rest of the building. They remodeled the kitchen, dining room, day room, restrooms, and showers, and installed an elevator. They replaced the heating, air conditioning, and sprinkler systems and widened the bays were widened to accommodate modern, larger vehicles. They converted the remaining space into a weight room. In addition, they constructed five new bunk rooms, and updated the conference room.

"These improvements will last us for the next 30 years or more," said Fire Chief Bill Johnson. The fire district also received a \$40,500 grant from USDA to purchase and equip a new command vehicle, replacing a truck that was past its useful life and had been deemed no longer safe to operate. The Depoe Bay Rural Fire Protection District now has the modern facilities and equipment it needs to continue serving this rural service area of 4,683 people and to provide a safe base of operations in the event of an earthquake.

More information on strategies using this grant can be found at: <https://www.usda.gov/sites/default/files/documents/usda-strategic-plan-2018-2022.pdf>. More information on best practices can be found at: <https://www.rd.usda.gov/newsroom/success-stories>.

203(k) Rehabilitation Program

Agency or Organization	U.S. Department of Housing and Urban Development (HUD) Federal Housing Administration (FHA)
Resource Type	Loan
Primary Recovery Function	Housing
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Homebuyers, homeowners.
Type of Assistance Provided	Financial Assistance
Restrictions	More information on the type of projects allowed and disallowed can be found here: https://www.hud.gov/program_offices/housing/sfh/203k/203k-df .
Funding Available	FHA mortgage limits may apply, depending on the area. Please consult the FHA Mortgage Limit Calculator, found here: https://entp.hud.gov/idapp/html/f17203k-look.cfm .
Cost Sharing	Not applicable to this program.
Website	https://www.hud.gov/program_offices/housing/sfh/203k
Contact Name	Gary Long
Contact Address	451 7th Street SW., Washington, DC 20410
Contact Phone	800-225-5342
Contact Email	Gary.X.Long@hud.gov

About the Resource

Section 203(k) insurance enables homebuyers and homeowners to finance both the purchase (or refinancing) of a house and the cost of its rehabilitation through a single mortgage or to finance the rehabilitation of their existing home.

Case Study or Best Practice

HUD's Federal Housing Administration (FHA) manages the 203(k) program. FHA works closely with FEMA and the Small Business Administration to support home rebuilding, repairs, or relocation following a disaster. The FHA has several programs, and 203(k) provides for qualified homebuyers and homeowners to either purchase a home or refinance an existing home to include the cost of repairs or improvements in the loan amount. There are three main programs under 203(k) depending on the scale of the repairs required to the home.

If the 203(k) program isn't right, FHA also provides the 203(h) program, which provides a mortgage loan for reconstruction or replacement of a home. The Title I Property Improvement Loan is a second mortgage for home alterations, repairs, or site improvements.

Housing Improvement Program (HIP)

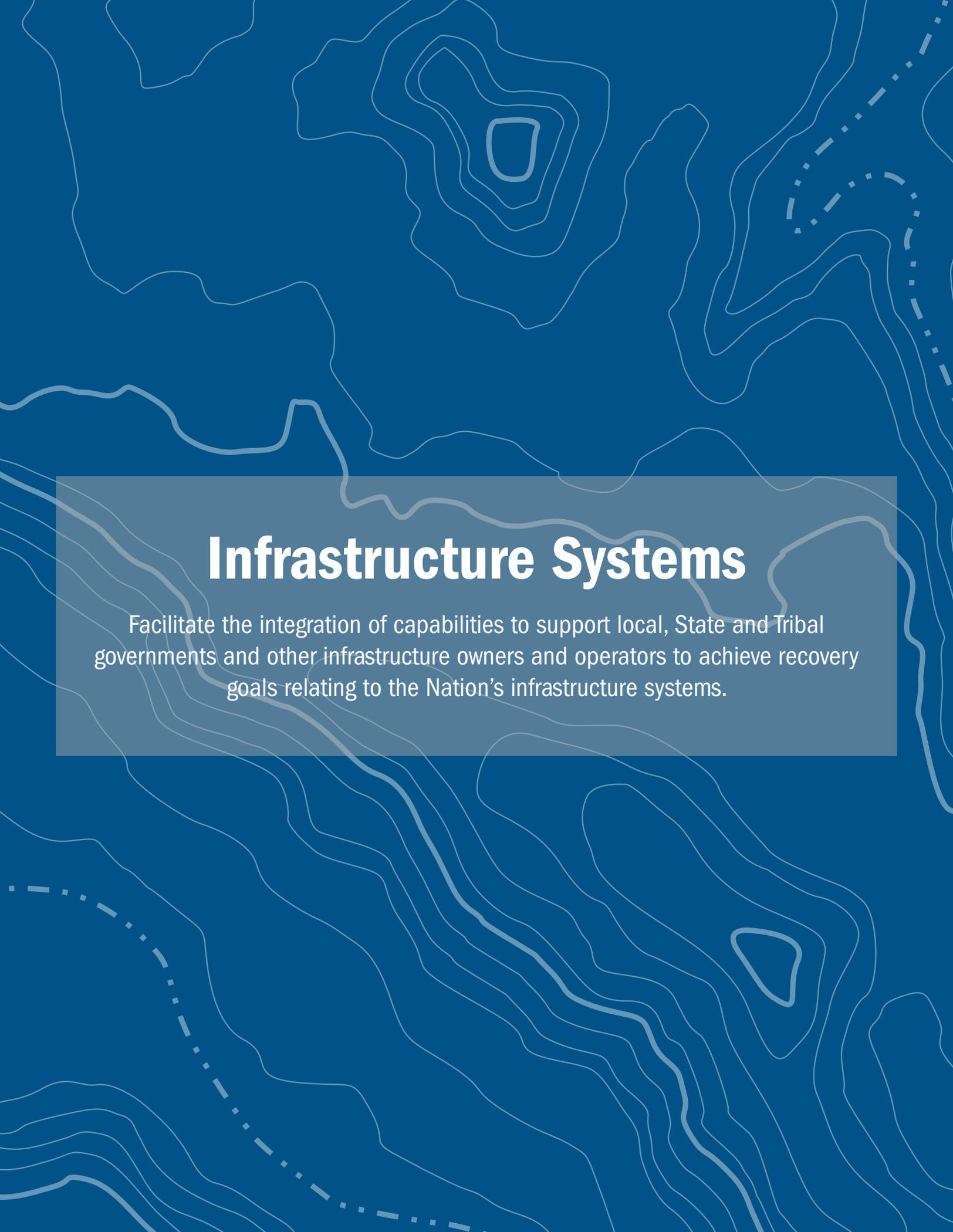
Agency or Organization	U.S. Department of the Interior (DOI) Bureau of Indian Affairs
Resource Type	Grant
Primary Recovery Function	Housing
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Applicants must be a member of a federally recognized American Indian tribe or an Alaska Native; live in an approved tribal service area; have an income that does not exceed 150% of the U.S. Department of Health and Human Services (DHHS) Poverty Guidelines; have present housing that is substandard, as defined by the regulations; have no other resource for housing assistance; and have not acquired your present housing through a federally sponsored housing program that includes such housing assistance.
Type of Assistance Provided	Financial Assistance, Technical Assistance
Restrictions	Consult the eligibility guidelines found here: https://www.bia.gov/bia/ois/dhs/housing-improvement-program
Funding Available	Interim Improvements: Provides up to \$7,500 in housing repairs for conditions that threaten the health and/or safety of the occupants. Repairs and Renovation: Provides up to \$60,000 in repairs and renovation to improve the condition of a homeowner's dwelling to meet applicable building code standards. Replacement Housing: Provides a modest replacement home if a homeowner's dwelling cannot be brought to applicable building code standards. New Housing: Provides a modest new home. If you do not own a home, you may be eligible if you are the owner or leaseholder of land suitable for housing and the lease is for not less than 25 years at the time assistance is received
Cost Sharing	Not identified
Website	https://www.bia.gov/bia/ois/dhs/housing-improvement-program
Contact Name	Loren Welch, Regional Facilities Manager
Contact Address	Norman Point II, 5600 W American Boulevard Suite 500 Bloomington, MN 55437
Contact Phone	612-725-4519
Contact Email	loren.welch@bia.gov

About the Resource

The HIP is a home repair, renovation, replacement, and new housing grant program administered by the Bureau of Indian Affairs (BIA) and federally recognized Indian tribes for American Indians and Alaska Native (AI/AN) individuals and families who have no immediate resource for standard housing. While not an entitlement program, HIP was established under The Snyder Act of 1921 as one of several BIA programs authorized by Congress for the benefit of Indian people.

Case Study or Best Practice

A comprehensive list of funding and operational programs within the Housing Improvement Program (HIP) can be found at: <https://www.hobbsstrauss.com/general-memorandum-17-038>.

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Infrastructure Systems

Facilitate the integration of capabilities to support local, State and Tribal governments and other infrastructure owners and operators to achieve recovery goals relating to the Nation's infrastructure systems.

Greening America's Communities

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Cities and towns.
Type of Assistance Provided	Technical Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.epa.gov/smartgrowth/greening-americas-communities
Contact Name	Clark Wilson
Contact Address	1200 Pennsylvania Avenue NW Washington, DC 20460
Contact Phone	202-566-2880
Contact Email	wilson.clark@epa.gov

About the Resource

Greening America's Communities (formerly known as Greening America's Capitals) is an EPA program to help cities and towns develop an implementable vision of environmentally friendly neighborhoods that incorporate innovative green infrastructure and other sustainable design strategies. EPA provides design assistance to help support sustainable communities that protect the environment, economy, and public health and to inspire local and state leaders to expand this work elsewhere.

Case Study or Best Practice

Indianapolis, Indiana

Indianapolis received assistance to make streets more walkable and revitalize public plazas in and around the Market Square Redevelopment Area. The area is a short walk from the Indiana statehouse and an emerging multimodal transportation hub connected to the Indianapolis Cultural Trail. The city plans to create a Green Cultural District in the area.

The Greening America's Capitals project helped the city create a cohesive vision to ensure that redevelopment benefits the district's underserved residents while expanding economic opportunities and improving the environment.

More information on projects is found here: <https://www.epa.gov/smartgrowth/reports-greening-americas-communities-projects>.

Flood Mitigation Assistance (FMA) Program

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Applicants must be states, U.S. territories, federally recognized tribes, or local governments.
Type of Assistance Provided	Financial Assistance
Restrictions	Restrictions can be found in the HMA Guidance, located here: https://www.fema.gov/grants/mitigation/hazard-mitigation-assistance-guidance .
Funding Available	<p>\$200 million was made available in FY 2020. Amount available may change per year.</p> <ul style="list-style-type: none"> · Up to \$100,000 for community flood mitigation advance assistance. · Up to \$10,000,000 for community flood mitigation projects. · \$50,000 for technical assistance for states/territories that were awarded FMA Grant Program funds totaling at least \$1,000,000 in FY 2017. · \$100,000 per applicant for mitigation planning with a maximum of \$50,000 for state plans and \$25,000 for local plans.
Cost Sharing	The non-federal match requirement varies based on the repetitive loss status of individual properties.
Website	https://www.fema.gov/grants/mitigation/floods
Contact Name	Morgan Holloway
Contact Address	536 S. Clark Street 6th Floor Chicago, IL 60605
Contact Phone	312-408-5500, 312-408-5427
Contact Email	Morgan.Holloway@fema.dhs.gov

About the Resource

The FMA program is authorized by Section 1366 of the National Flood Insurance Act of 1968, as amended, with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP). FMA provides funding to states, territories, federally recognized tribes, and local communities for projects and planning that reduces or eliminates long-term risk of flood damage to structures insured under the NFIP. FMA funding is also available for management costs. Funding is appropriated by Congress annually.

Case Study or Best Practice

Beatrice, Nebraska

Following devastating flooding from the Big Blue River in 1973, the city of Beatrice began the process of acquiring flood-damaged properties and other mitigation efforts to avoid current and future losses due to flooding. Beatrice secured FEMA funding through the Flood Mitigation Assistance (FMA) program as well as other FEMA programs, as well as other federal grant programs. Through proactive mitigation efforts, Beatrice was able to avoid significant future losses during a large flood event in 2015.

More information can be found here: <https://arcg.is/1mv0ie> as well as here: https://www.fema.gov/media-library-data/20130726-1515-20490-1306/voices_anthology.pdf

Public Assistance (PA) Program

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants include states, federally recognized tribal governments (including Alaska Native villages and organizations so long as they are not privately owned), U.S. territories, local governments, and certain private nonprofit organizations.
Type of Assistance Provided	Financial Assistance
Restrictions	Take a look at the National Dam Safety Program Fact Sheet, found here: https://www.fema.gov/sites/default/files/2020-08/dam-safety-in-us.pdf .
Funding Available	Mitigation funding limits are determined based on benefit-cost-analysis or as a percentage of the damaged facility's repair cost.
Cost Sharing	The federal share of assistance is not less than 75% of the eligible cost.
Website	https://www.fema.gov/assistance/public
Contact Name	Amanda Ratliff
Contact Address	536 S. Clark Street Chicago, IL 60605
Contact Phone	312-408-5500
Contact Email	Amanda.Ratliff@fema.dhs.gov

About the Resource

The FEMA PA program provides grants to state, local, territorial, and Indian Tribal governments and certain types of non-profit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President.

Through the program, FEMA provides supplemental Federal disaster grant assistance for debris removal; life-saving emergency protective measures; and the repair, replacement, or restoration of disaster-damaged publicly owned facilities, and the facilities of certain private nonprofit organizations. The PA program also encourages protection of these damaged facilities from future events by providing assistance for cost-effective hazard mitigation measures during the recovery process.

Case Study or Best Practice

PA Section 406 funding was used to repair and restore sections of the Kankakee Riverbank. The 5.6-mile long riverbank is located north of De Motte, IN. The damage occurred in February 2018 caused by spring flooding, later declared a Presidential disaster (DR-4363). Before the flooding, the riverbank was 25 feet wide. Flooding caused by the disaster eroded the riverbank to 15-20 feet in most areas. The project restores the width of the riverbank by adding rip-rap to the embankment to help protect people and property near the Kankakee River. PA Section 406 contributed \$1,036,875 toward the total project cost of \$3,580,468.

Hazard Mitigation Grant Program (HMGP)

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	In general, individuals, businesses, and private nonprofits via local governments can apply for HMGP funding. Individuals may not apply directly for HMGP funding, but may be sponsored through an appropriate subapplicant via a local government, State agency, tribe or tribal agency, or private nonprofit. Applications are submitted to the state, eligible tribe, or territory, which receives HMGP funds from FEMA.
Type of Assistance Provided	Financial Assistance
Restrictions	Restrictions can be found in the HMA Guidance, located here: https://www.fema.gov/grants/mitigation/hazard-mitigation-assistance-guidance .
Funding Available	The available funding is determined based upon the disaster declaration.
Cost Sharing	Matching requirements are up to 75% for a federal match and a minimum of 25% for a non-federal match. Note that funding from other federal sources cannot be used for the 25% share with one exception: Funding provided to states, tribes, or territories under the Community Development Block Grant program from the Department of Housing and Urban Development can be used to meet the non-federal share requirement.
Website	https://www.fema.gov/grants/mitigation
Contact Name	Rusty Rickart
Contact Address	536 S. Clark Street 6th Floor Chicago, IL 60605
Contact Phone	312-408-5500, 312-408-5591
Contact Email	rusty.rickart@fema.dhs.gov

About the Resource

The purpose of the HMGP is to help communities implement statewide hazard mitigation measures following a Presidential Major Disaster Declaration in a state, tribe, or territory requested by the Governor or Tribal Executive. The key purpose of this grant program is to enact mitigation measures that reduce the risk of loss of life and property from future disasters. This webpage includes extensive resources and job aids to streamline project implementation. The primary guidance document for this program is the HMA Guidance. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Case Study or Best Practice

Oliver, Wisconsin

From Wisconsin Emergency Management's Mitigation News (https://dma.wi.gov/DMA/divisions/wem/mitigation/docs/stories/Oliver_Slump_Forces_Owners_Out_2012.pdf): The Schlais family enjoyed life on the banks of the St. Louis River—at least until August 2002 when a crack appeared in the middle of their garage floor. They moved the garage before half of its foundation dropped 12 feet towards the river a month later. By mid-September, the 18-foot slump was approximately 1 foot from the rear entrance of the Schlais home. The Schlais-es, along with several other nearby homeowners, watched their yards, decks, and stairways slide towards the river.

According to Jack Zaengle, Geology Professor at the University of Wisconsin-Superior, this type of earth mass-movement, called a “slump,” is common in the area. However, what made this event unusual was the sheer size of the slump, approximately 100 yards wide, extending 100 to 150 feet down slope to the river, and the rate at which it was slipping, an average of 1.5 inches per day. Early on, the Schlaises reported slip rates in excess of 4.5 inches per day.

The ground failure was due in part to an underlay of red clay, which contains a significant amount of the mineral smectite. Smectite absorbs water and expands to many times its original volume, shrinking back again when it dries. This contributes to the instability of the red clay, especially when saturated. During the spring and summer of 2002, the area received a lot of rain, which added weight to the red clay. The water also acted as a lubricant, which facilitated down-slope movement.

Another factor causing the slump was the ground vibration caused by trains crossing the nearby Oliver Bridge.

On top of all that, the Schlaises' home was close to a propane tank and other infrastructure that was deteriorating. Water seepage into the basement also intensified, making this a high-risk situation.

Through Wisconsin Emergency Management (WEM), the Village of Oliver applied for and received funds from the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program to acquire and demolish the three homes that were in imminent danger from ground failure. FEMA provided 75% of the costs, or \$238,847, with WEM and the Village each providing 12.5%, or \$39,808, towards the cost of the project.

"This was a serious situation for not only the Schlaises, but the other two properties," stated Roxanne Gray, State Hazard Mitigation Officer at WEM. "I was thankful to Professor Zaengle for providing his expertise and information we needed in acquiring grant approval. With the mitigation grant funds, the Village was able to acquire the homes, which enabled the property owners to purchase another home."

In June 2012, a severe storm rolled through Oliver, which caused extensive flooding throughout the area and led to a Federal disaster declaration. The same three properties purchased by mitigation funds experienced further slumping. By previously acquiring the three properties, additional losses were avoided.

More information can be found at: www.fema.gov/hazard-mitigation-grant-program-hmgrp.

Water and Waste Disposal Loan and Grant Program

Agency or Organization	U.S. Department of Agriculture (USDA)
Resource Type	Loan, Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Most state and local government entities, private nonprofits, federally recognized tribes.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	Consult the eligibility guidelines found here: https://www.rd.usda.gov/files/fact-sheet/RD-FactSheet-RUS-WEPSDirect.pdf
Funding Available	Not identified
Cost Sharing	Not identified
Website	https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program
Contact Name	Contacts are organized by state and county: https://offices.sc.egov.usda.gov/locator/app
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The Rural Utilities Service (RUS), the Rural Business-Cooperative Service, and the Rural Housing Service comprise USDA's Rural Development mission area. As the name suggests, the three agencies' programs are designed to meet the needs of people who live in rural areas including infrastructure, housing, health and medical, education, and employment. The RUS's Water Programs Division has four programs that provide financial and technical assistance for the development and operation of safe and affordable water supply systems, sewage, and other forms of waste disposal facilities: Water and Waste Disposal Loans and Grants, Emergency Community Water Assistance Grants, Technical Assistance and Training Grants, and Solid Waste Management Grants. RUS provides loans, guaranteed loans, and grants for water, sewer, stormwater, and solid waste disposal facilities in cities and towns of up to 10,000 people, and rural areas with no population limits.

Case Study or Best Practice

In 2020, the USDA invested \$462 million across 44 states to modernize critical drinking water and wastewater infrastructure across rural America. This article highlights several examples of projects funded under the program:

<https://www.waterworld.com/drinking-water/infrastructure-funding/article/14181114/usda-invests-462m-to-modernize-water-and-wastewater-infrastructure>.

Small Flood Control

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Non-federal sponsor
Type of Assistance Provided	Financial Assistance
Restrictions	Each project selected must be economically justified; that is, the benefits resulting from constructing a project must exceed the cost incurred to construct the project. It also must be environmentally acceptable and complete within itself.
Funding Available	Each separate project is limited to a total federal cost of not more than \$10 million, including studies, design, and implementation.
Cost Sharing	Initial federally funded portion up to \$100,000, and a cost-shared portion in which study costs in excess of \$100,000 will be shared 50/50 with the non-federal sponsor. Once a project is approved, the non-federal sponsor must provide a minimum of 35% of costs for design and implementation, but not exceed 50% of total project costs. At least 5% of the total cost must be contributed in cash.
Website	http://www.mvp.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/587968/fact-sheet-09-small-flood-control-projects/
Contact Name	Chris Erickson
Contact Address	180 5th Street East Suite 700 St. Paul, MN 55101
Contact Phone	651-290-5437
Contact Email	christopher.r.erickson@usace.army.mil

About the Resource

The USACE has the authority, provided by Section 205 of the 1948 Flood Control Act, as amended, to plan, design, and construct certain small flood control projects that have not already been specifically authorized by Congress. Both structural (levees, channels, or dams, for instance) and nonstructural (flood proofing or evacuation, for example) solutions are considered. Studies are required to evaluate potential projects. Each project selected must be economically justified; that is, the benefits resulting from constructing a project must exceed the cost incurred to construct the project. It also must be environmentally acceptable and complete within itself. In addition, each separate project is limited to a total federal cost of not more than \$10 million, including studies, design, and implementation.

Case Study or Best Practice

A hydrologic-economic simulation model was developed to evaluate alternative protective schemes in the design of an authorized federal flood control project for 125 miles of the Tibbee River floodplain in Mississippi. The model requires input consisting of unit hydrographs, streamflow, routing coefficients and storage functions, a pattern storm, rainfall loss rate functions, and flow-damage -frequency relations. A single synthetic pattern storm was used in conjunction with flow-frequency curves at index locations to generate a series of floods for comparing alternative protection schemes with existing conditions. The effect of channel improvement on flood runoff characteristics was evaluated by using storage routing functions that account for changes in storage-discharge relations. Based on results obtained from using the model, a channel improvement plan was tentatively selected for the Tibbee River basin from the alternative schemes evaluated.

More information on this case study can be found at: <https://www.hec.usace.army.mil/publications/TechnicalPapers/TP-51.pdf>.

Rehabilitation and Inspection Program

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Public sponsor
Type of Assistance Provided	Technical Assistance
Restrictions	The criteria for assistance, and therefore any restrictions on what is not eligible for assistance, is found here: https://www.mvp.usace.army.mil/Missions/Emergency-Management/Rehabilitation-Inspection/ .
Funding Available	Not identified
Cost Sharing	The public sponsor must provide 20% of the cost of the rehabilitation assistance.
Website	http://www.mvp.usace.army.mil/Missions/Emergency-Management/Rehabilitation-Inspection/
Contact Name	U.S. Army Corps of Engineers
Contact Address	Reach out to applicable district, found here: https://www.usace.army.mil/locations.aspx .
Contact Phone	See above
Contact Email	See above

About the Resource

The USACE has authority under Public Law (PL) 84-99 to supplement local efforts to repair flood control projects after they get damaged during a flood. There are many things that must be carefully balanced in carrying out this authority, such as the needs of the local community, sensitivity to the environment, the need to apply sound engineering judgment for the proper functioning of the Flood Control Works (FCW), and the need to provide proper stewardship of the taxpayers' dollars with which the USACE is entrusted. In light of all these competing interests, the USACE has developed a program called the Rehabilitation and Inspection Program (RIP), which specifically defines the types of projects that can be eligible for assistance and specifies the ongoing for operation and maintenance requirements for the FCWs that qualify.

Case Study or Best Practice

USACE provides information on their disaster response programs, including the intended goals and outputs of the programs, at: <https://www.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/475476/emergency-response/>.

Inspection of Completed Works (ICW) Program

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Non-federal owners of federally built critical infrastructure.
Type of Assistance Provided	Technical Assistance
Restrictions	None identified
Funding Available	Not identified
Cost Sharing	Not identified
Website	http://www.mvp.usace.army.mil/Missions/Civil-Works/Programs-Project-Management/District-Programs/Inspection-of-Completed-Works/
Contact Name	Mr. Dana Werner
Contact Address	180 5th Street East Suite 700 St. Paul, MN 55101
Contact Phone	651-290-5755 651-290-5326
Contact Email	dana.l.werner@usace.army.mil

About the Resource

The purpose of the ICW Program is to ensure that non-federal owners of federally built critical infrastructure, such as a flood damage reduction project, perform essential maintenance in accordance with the project operation and maintenance manuals. Compliance inspections are performed annually to identify maintenance deficiencies and operational problems and to discuss corrective actions. When necessary, the USACE provides technical assistance before, during, and after each flood emergency. Through these compliance inspections, the USACE ensures that the project will operate and function as designed.

Case Study or Best Practice

The ICW Program was used to complete a flood damage reduction project in Oslo, Minnesota, following the 1997 Red River flood.

Continuing Authorities Program (CAP)

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Non-federal authority
Type of Assistance Provided	Technical Assistance
Restrictions	The authority and project scopes allowed under the CAP can be found here: https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/ .
Funding Available	The feasibility phase is initially federally funded up to \$100,000. Any remaining feasibility phase costs are shared 50/50 with the non-federal sponsor after executing a FCSA. Costs beyond the feasibility phase are shared as specified in the authorizing legislation for that section.
Cost Sharing	There is a 50/50 cost-share during the feasibility phase for costs exceeding \$100,000. Additional cost-share is outlined in the specified legislation for the section in which the project falls.
Website	http://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/
Contact Name	Contact specific to division: https://www.usace.army.mil/Locations.aspx ; contacts available by state/region.
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The USACE CAP is a group of nine legislative authorities under which the USACE can plan, design, and implement certain types of water resources projects without additional project-specific congressional authorization. The purpose of the CAP is to plan and implement projects of limited size, cost, scope, and complexity. The table below lists the CAP authorities and their project purposes.

All projects in this program include a feasibility phase and an implementation phase. Planning activities, such as development of alternative plans to achieve the project goals, initial design and cost estimating, environmental analyses, and real estate evaluations, are performed during the feasibility phase to develop enough information to decide whether to implement the project. The feasibility phase is initially federally funded up to \$100,000. Any remaining feasibility phase costs are shared 50/50 with the non-federal sponsor after executing a feasibility cost sharing agreement (FCSA). The final design, preparation of contract plans and specifications, permitting, real estate acquisition, project contracting and construction, and any other activities required to construct or implement the approved project are completed during the implementation phase. The USACE and the non-Federal sponsor sign a project partnership agreement (PPA) near the beginning of the implementation phase. Costs beyond the feasibility phase are shared as specified in the authorizing legislation for that section.

Case Study or Best Practice

Model documentation for all Continuing Authorities Program Projects can be found at: https://www.usace.army.mil/Missions/Civil-Works/Project-Partnership-Agreements/model_cap/.

Emergency Relief Program

Agency or Organization	Department of Transportation (DOT)/Federal Highway Administration (FHA)
Resource Type	Trust
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	States may request ER funds, which can be used for “emergency repairs” and “permanent repairs”.
Type of Assistance Provided	Financial Assistance
Restrictions	Information on program eligibilities can be found here: https://www.fhwa.dot.gov/federalaid/projects.pdf#page=46 as well as here: https://www.fhwa.dot.gov/reports/erm/er.pdf .
Funding Available	\$100 million is authorized annually for the ER Program under 23 U.S.C. 125. Congress has periodically provided additional funds for the ER program through supplemental appropriations. MAP-21 eliminated the \$100 million per state event cap. The total ER obligations for U.S. territories (American Samoa, Commonwealth of Northern Mariana Islands, Guam, and Virgin Islands) is limited to \$20 million in any fiscal year.
Cost Sharing	For interstate highways, the federal share is 90%. For all other highways, the federal share is 80%. The federal share for permanent ER repairs may amount to 90% if the combined eligible ER expenses incurred by the state in a federal fiscal year exceeds the annual apportionment of the state under 23 U.S.C. section 104 for the fiscal year in which the disasters or failures occurred.
Website	https://www.fhwa.dot.gov/programadmin/erelief.cfm
Contact Name	Greg Wolf, Emergency Relief Programs
Contact Address	1200 New Jersey Avenue, S.E. Washington, DC 20590
Contact Phone	202-366-4655
Contact Email	greg.wolf@dot.gov

About the Resource

Congress authorized in Title 23, United States Code, Section 125, a special program from the Highway Trust Fund for the repair or reconstruction of federal-aid highways and roads on federal lands that have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause. This program, commonly referred to as the Emergency Relief (ER) program, supplements the commitment of resources by states, their political subdivisions, or other federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions. The applicability of the ER program to a natural disaster is based on the extent and intensity of the disaster. Damage to highways must be severe, occur over a wide area, and result in unusually high expenses to the highway agency. Applicability of ER to a catastrophic failure due to an external cause is based on the criteria that the failure was not the result of an inherent flaw in the facility, but was sudden, caused a disastrous impact on transportation services, and resulted in unusually high expenses to the highway agency.

Case Study or Best Practice

The allocation of emergency relief funds for Fiscal Year (FY) 2019 is found here: <https://www.fhwa.dot.gov/specialfunding/er/190905distribution.cfm>

Coastal Resilience Grants Program

Agency or Organization	National Oceanic and Atmospheric Administration (NOAA)
Resource Type	Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Eligible applicants are institutions of higher education, nonprofit and for-profit organizations, U.S. territories and states, Native American tribes, and local governments including counties, municipalities, and cities.
Type of Assistance Provided	Financial Assistance
Restrictions	Consult the restrictions in the Federal Funding Opportunity.
Funding Available	Dependent on FY2018 appropriations, NOAA intends to award up to \$9 million for this competition.
Cost Sharing	Federal funds awarded under this program must be matched with non-Federal funds at a 2:1 ratio.
Website	https://coast.noaa.gov/resilience-grant/
Contact Name	Melanie Gange
Contact Address	1315 East-West Highway 14th Floor Silver Spring, MD 20910
Contact Phone	301-427-8664
Contact Email	melanie.gange@noaa.gov

About the Resource

This competitive grant program funds projects that are helping coastal communities and ecosystems prepare for and recover from extreme weather events, climate hazards, and changing ocean conditions. All project proposals undergo a rigorous merit review and selection process by a panel of subject matter experts from across the United States that include representatives of government, academia, and private industry.

The National Coastal Resilience Fund is partially funded through the NOAA Coastal Resilience Grants Program.

Case Study or Best Practice

Improving Economic Security in Coastal Wisconsin

Applicant: Wisconsin Department of Administration

Recommended Federal Funding: \$840,000 (FY 2017)

Match: \$420,518

Southeastern Wisconsin wants to reduce damages caused by coastal hazards, such as erosion, coastal storms, and fluctuating water levels. For this project, guidance will be developed with regard to options for protecting bluff, beach, and harbor ecosystems and the coastal economy. Exploring future possibilities through scenario development and improving risk communication are also parts of the effort. The Wisconsin Department of Administration's Wisconsin Coastal Management Program is leading this project, and participation involves four coastal counties, 22 coastal municipalities, and various State and local organizations.

Project Partners: University of Wisconsin Sea Grant Institute, University of Wisconsin-Madison Department of Civil and Environmental Engineering, Southeastern Wisconsin Regional Planning Commission

The Coastal Resilience Program is currently on hold.

More information on 2017 recipients can be found at: <https://www.noaa.gov/media-release/noaa-announces-138-million-in-coastal-resilience-grants>.

Meteorologic and Hydrologic Modernization Development

Agency or Organization	National Oceanic and Atmospheric Administration (NOAA)
Resource Type	Technical
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	There is both applicant eligibility and beneficiary eligibility. Both can be found here: https://beta.sam.gov/fal/d1e6b12d3857ecc7cbde3c811f629a82/view#compliance-requirements .
Type of Assistance Provided	Financial Assistance, Technical Assistance
Restrictions	Restrictions can be found within the compliance requirements, located here: https://beta.sam.gov/fal/d1e6b12d3857ecc7cbde3c811f629a82/view#compliance-requirements .
Funding Available	The range of available financial assistance is \$6,000 to \$5,814,360. The average assistance given is \$400,000.
Cost Sharing	Not identified
Website	https://beta.sam.gov/fal/d1e6b12d3857ecc7cbde3c811f629a82/view?keywords=hazard%20mitigation&sort=-relevance&index=cfda&is_active=true&page=1
Contact Name	Leroy Spayd Portfolio Coordinator Chief, Training Division National Weather Service/Office of the Chief Learning Officer
Contact Address	1325 East-West Highway Silver Spring, MD 20910
Contact Phone	301-427-9322
Contact Email	leroy.spayd@noaa.gov

About the Resource

This program's goal is to maintain a cooperative university and federal partnerships to conduct meteorological training, education, professional development, and research and development on issues common to the hydrometeorological community, and to reduce the impact of tsunamis through hazard assessment, warning guidance, and mitigation.

This program was not updated in 2019.

Case Study or Best Practice

Fiscal Year 2019

Projects awarded will continue development of the Education, Training and Capacity Development (ETCD) Center for weather, water, and climate forecasting. This center will focus on human performance improvement and capacity development in National Meteorological and Hydrological Services.

Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program

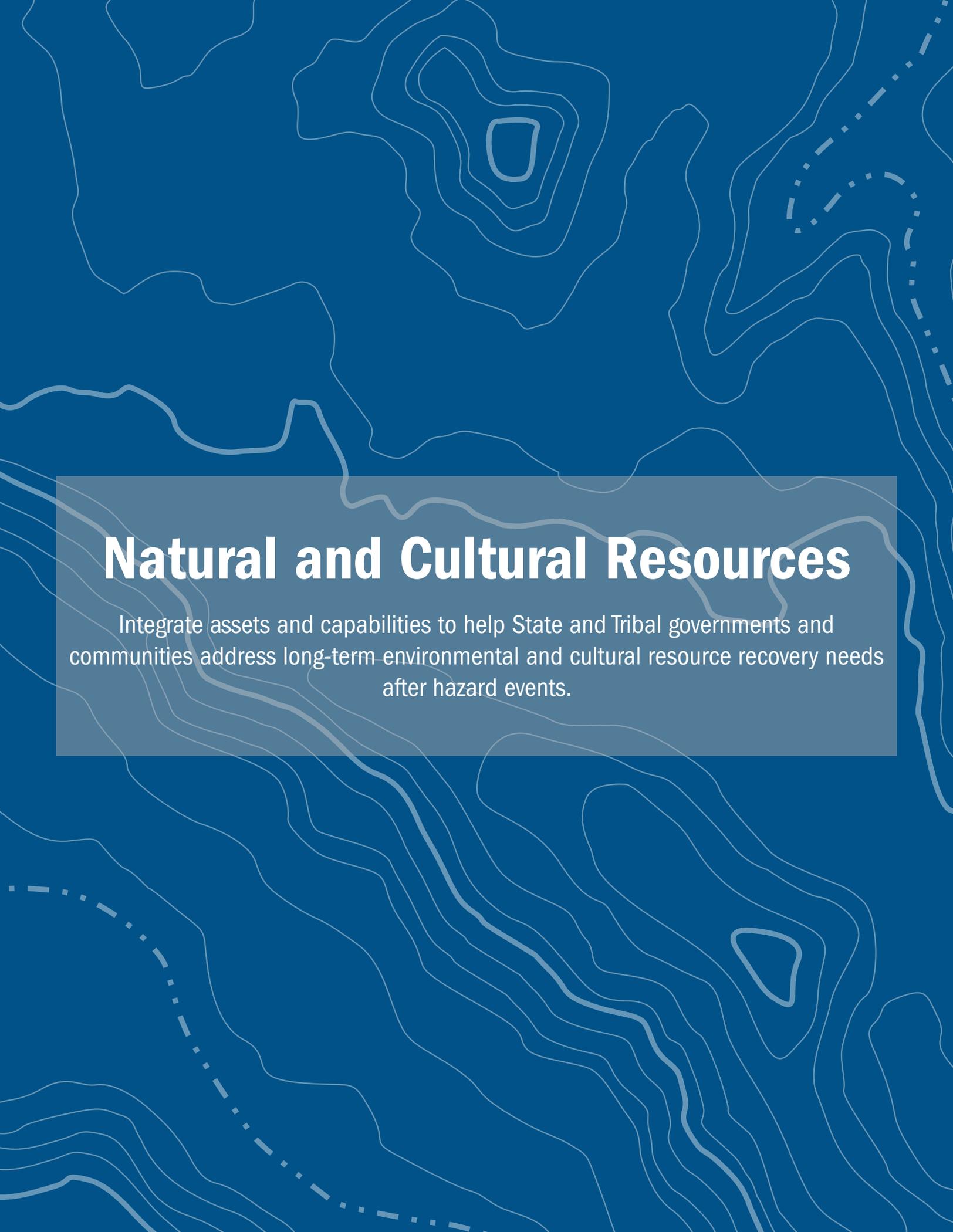
Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Grant
Primary Recovery Function	Infrastructure Systems
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Non-federal sponsors defined as non-federal governments and nonprofit organizations.
Type of Assistance Provided	Eligible activities include: 1) repair, 2) removal, or 3) structural/nonstructural rehabilitation of eligible high hazard potential dams.
Restrictions	See the HHPD Grant Program Fact Sheet, found here: https://www.fema.gov/sites/default/files/2020-08/fema_HHPD-fact-sheet_05-15-2020.pdf .
Funding Available	FEMA was appropriated \$10 million to implement the Rehabilitation of HHPD Grant Program for Fiscal Year 2020.
Cost Sharing	A grant under this program should not exceed the lesser of (i) 12.5% of the total amount of funds made available; or (ii) \$7.5 million. There is a non-federal cost share requirement of not less than 35%, which may be partially or fully in-kind.
Website	https://www.fema.gov/emergency-managers/risk-management/dam-safety/grants#hhd
Contact Name	Dan Ryan, Risk Analyst
Contact Address	536 S. Clark Street 6th Floor Chicago, IL 60605
Contact Phone	312-408-4432
Contact Email	Daniel.p.ryan@fema.dhs.gov

About the Resource

The President signed the “Water Infrastructure Improvements for the Nation Act” or the “WIIN Act”, on December 16, 2016, which amends the National Dam Safety Program Act (Pub. L. 92-367) by adding a new grant program. Section 5006 of the Act, Rehabilitation of High Hazard Potential Dams, provides technical, planning, design, and construction assistance in the form of grants to non-federal sponsors for rehabilitation of eligible high hazard potential dams (33 USC §467f-2).

Case Study or Best Practice

None identified.

The background of the entire page is a topographic map with white contour lines on a dark blue background. The map shows various elevation levels, with some areas having more closely spaced lines indicating steeper terrain. A dashed white line, likely representing a road or boundary, winds across the map from the top right towards the bottom left.

Natural and Cultural Resources

Integrate assets and capabilities to help State and Tribal governments and communities address long-term environmental and cultural resource recovery needs after hazard events.

Sustainable Communities Regional Planning (SCRP) Grants

Agency or Organization	U.S. Department of Housing and Urban Development (HUD)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Local Plans and Regulations
Eligible Applicants	Local municipalities, nonprofit organizations, for-profit organizations. A list of the grantee and applicant list from 2011 can be found here: https://www.hud.gov/sites/documents/2011REGAWARDPSSAPPLICANTS.PDF
Type of Assistance Provided	Financial Assistance
Restrictions	None identified
Funding Available	Thresholds depend on the size of the community: For large metropolitan areas with a population of 500,000 or more, the minimum grant amount is \$1,000,000 and the maximum is \$5,000,000. For medium-sized metropolitan areas with a population between 200,000 and 499,999, the minimum grant amount is \$600,000 and the maximum is \$3,000,000. For rural and small town areas with a population below 200,000, the minimum grant amount is \$400,000 and the maximum is \$1,500,000.
Cost Sharing	A 20% match is required.
Website	https://www.hud.gov/program_offices/economic_development/sustainable_communities_regional_planning_grants
Contact Name	Regional and state contacts can be found here: https://www.hud.gov/program_offices/field_policy_mgt/localoffices
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The SCR Grant Program supports locally led collaborative efforts that bring together diverse interests from the many municipalities in a region to determine how best to target housing, economic and workforce development, and infrastructure investments to create more jobs and regional economic activity. SCR places a priority on investing in partnerships, including nontraditional partnerships (e.g., arts and culture, recreation, public health, food systems, regional planning agencies, and public education entities) that translate the Six Livability Principles into strategies that direct long-term development and reinvestment, demonstrate a commitment to addressing issues of regional significance, use data to set and monitor progress toward performance goals, and engage partners and residents in meaningful decision-making roles. The SCR program is a key initiative of the Partnership for Sustainable Communities, in which HUD works with the U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) to coordinate and leverage programs and investments.

Note: this resource has not been updated since 2011.

Case Study or Best Practice

Denver, Colorado

A 12-year, \$6.2 billion public transportation expansion plan for the region, FasTracks, built six new transit lines and 57 new stations by 2017. Front Range Economic Strategy Center, Making Connections-Denver, Metropolitan Organizations for People, and Project Wise developed a community engagement initiative around two stations for Denver Housing Authority residents and surrounding community members. Through the establishment of Resident Advisory Committees (RAC) in 2006, the effort engaged hundreds of residents and resulted in the adoption of a list of Community Principles (such as preventing displacement and creating economic opportunities) to guide redevelopment efforts.

More information on the Sustainable Communities Regional Planning Grants and best practices can be found at: <http://www.policylink.org/sites/default/files/2010-sc-regional-planning-grant-equity-guide.pdf>.

Coastal and Marine Habitat Restoration Grants

Agency or Organization	National Oceanic and Atmospheric Administration (NOAA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants are institutions of higher education, nonprofits, commercial (for profit) organizations, U.S. Territories, and state, local, and Native American tribal governments.
Type of Assistance Provided	Financial Assistance
Restrictions	NOAA will not accept proposals with a NOAA federal funding request of less than \$75,000 or more than \$3 million over a three-year award period.
Funding Available	\$6 million in Community-based Restoration Program funding available for coastal and marine habitat restoration in 2019.
Cost Sharing	Applicants are encouraged to demonstrate a 1:1 non-federal match for NOAA funds.
Website	https://www.fisheries.noaa.gov/grant/coastal-and-marine-habitat-restoration-grants
Contact Name	Natalie McLenaghan
Contact Address	1315 East-West Highway 14th Floor Silver Spring, MD 20910
Contact Phone	301-427-8600
Contact Email	Natalie.McLenaghan@noaa.gov

About the Resource

NOAA's Restoration Center recognizes that habitat protection and restoration are essential elements of a strategy for sustainable commercial and recreational fisheries. Investing in habitat restoration projects leads to real, lasting differences for communities, businesses, and the environment. The Community-based Restoration Program supports restoration projects that use a habitat-based approach to rebuild productive and sustainable fisheries, contribute to the recovery and conservation of protected resources, and promote healthy ecosystems and resilient communities.

Note: this resource may not apply to many of the communities in FEMA Region V, but is included because the resource is available in FEMA Region V.

Case Study or Best Practice

Accelerating Recovery across Puget Sound

The Nature Conservancy was awarded up to \$1,761,089 over three years to restore floodplain and estuary habitat in Puget Sound. The Nature Conservancy will work with partners to plan, develop, and implement on-the-ground projects that will restore more than 100 acres of delta, tidal, floodplain, and riparian habitat in two of the most important watersheds within Puget Sound for the recovery of Endangered Species Act-listed salmon.

Winter Lake Restoration

The Nature Conservancy was awarded \$1,210,000 to restore 407 acres of tidal wetlands. It will also provide access to 1,300 acres of over-winter fish habitat at a site in the Coquille River Estuary of western Oregon. The project will benefit Endangered Species Act-listed coho salmon.

Fish Passage Restoration in Alaska

The Tyonek Tribal Conservation District was awarded up to \$600,000 over two years to replace two undersized culverts and re-route one road. This will restore access to 9 upstream miles and 130 lake acres to multiple salmon species, providing benefits to both salmon and Cook Inlet Beluga Whales that rely on salmon as a food source.

National Federal Partnership Liaison

Agency or Organization	National Oceanic and Atmospheric Administration (NOAA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Sea Grant College Programs, Institutional Programs, and Coherent Area Programs; and the National Sea Grant Library.
Type of Assistance Provided	Financial Assistance
Restrictions	Applicants will be required to provide letters of intent that identify the proposed federal partner agency, description of the position, Sea Grant and partner goals and priorities that will be served by this partnership, position duration, and approximate amount of funding to be requested from both NOAA Sea Grant and the federal partner agency using the elements provided below. This letter of intent should not exceed five pages in length. Federal agency letter of support is not required until the full proposal submission
Funding Available	Up to \$100,000 of NSGO federal dollars annually for up to four years.
Cost Sharing	The Sea Grant program provides a 50% match of NSGO funds. The federal partner provides an equivalent amount to NSGO.
Website	https://seagrants.noaa.gov/liaisons
Contact Name	Nikola Garber Deputy Director, National Sea Grant College Program
Contact Address	1315 East-West Highway Room 11735 Silver Spring, MD 20910
Contact Phone	301-734-1066
Contact Email	Nikola.Garber@noaa.gov

About the Resource

The National Federal Partnership Liaison position coordinates between the NOAA Sea Grant Office (NSGO) and other federal agencies or programs whose projects align with NSGO's goals and areas of focus. This program will fund two to three liaisons at up to \$100,000 of Sea Grant federal dollars annually for four years.

Case Study or Best Practice

Read about Chiara Zuccarion-Crowe, the Great Lakes Sea Grant Network/GLERL Liaison with the Michigan Sea Grant. Her profile is found here: <https://www.michiganseagrant.org/about/who-we-are/michigan-sea-grant-staff/chiara-zuccarino-crowe/>.

Environmental Planning and Historic Preservation (EHP)

Agency or Organization	Federal Emergency Management Agency (FEMA)
Resource Type	Policy
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Structures 50 years or older from current date.
Type of Assistance Provided	Technical Assistance
Restrictions	Not applicable to this program.
Funding Available	Not applicable to this program.
Cost Sharing	Not applicable to this program.
Website	https://www.fema.gov/emergency-managers/practitioners/environmental-historic
Contact Name	Duane Castaldi, Regional Environmental Officer
Contact Address	536 S. Clark Street 6th Floor Chicago, IL 60605
Contact Phone	312-408-5549
Contact Email	GPDEHPInfo@dhs.gov Duane.Castaldi@fema.dhs.gov

About the Resource

The EHP program integrates the protection and enhancement of environmental, historic, and cultural resources into FEMA's mission, programs, and activities; ensures that FEMA's activities and programs related to disaster response and recovery, hazard mitigation, and emergency preparedness comply with federal environmental and historic preservation laws and executive orders; and provides environmental and historic preservation technical assistance to FEMA staff, local, state, and federal partners, and grantees and subgrantees.

Case Study or Best Practice

St. Croix, Minnesota

During the evening of July 1, 2011, storms accompanied by straight-line winds at speeds of more than 100 miles per hour tore through the St. Croix Recreational Demonstration Area (RDA), felling trees, blocking roadways, and damaging buildings across the park. On July 28, the President declared a major disaster for Minnesota, making federal funding available on a cost-sharing basis to the Minnesota Department of Natural Resources (DNR). FEMA's environmental review staff, along with DNR and FEMA's Public Assistance Branch, gathered regularly to review 60 separate grant projects and repair specifications to ensure that the historic character of the RDA would not be compromised by the repairs. Despite the damages, the projects addressed damage to the park's historic resources, preserving an important part of our nation's history. That success allows the park to continue providing opportunities for outdoor recreation as originally envisioned almost 80 years ago.

Floodplain Wetland Initiative

Agency or Organization	U.S. Department of Agriculture (USDA) Farm Service Agency (FSA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Farms and ranches damaged by federally declared disasters.
Type of Assistance Provided	Financial Assistance
Restrictions	Not identified
Funding Available	Not identified
Cost Sharing	Payments covering 90% of the eligible costs of establishing the wetland restoration practice <ul style="list-style-type: none"> · 50% from a Cost-Share Payment. · 40% from a Practice Incentive Payment.
Website	https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/index
Contact Name	Contacts organized by state and county: https://offices.sc.egov.usda.gov/locator/app
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The Floodplain Wetlands Initiative is an innovative approach to flood control and floodplain management. The Floodplain Wetlands Initiative falls under the Conservation Reserve Program (CRP), which provides farmers and landowners with initiatives like this to achieve many farming and conservation goals. Whatever the conservation challenge – soil conservation, water quality protection, or wildlife habitat enhancement – CRP is a proven land performance and management solution.

Case Study or Best Practice

Minnesota uses the Conservation Reserve Program to increase wildlife populations in the state and conserve millions of acres. Habitat created by farmers enrolling private land in the Conservation Reserve Program has supported dramatically increased wildlife populations in Minnesota.

More information on Minnesota's efforts can be found at: https://www.nrcs.usda.gov/wps/portal/nrcs/mn/technical/ecoscience/agronomy/nrcs142p2_023675/.

Office of Protected Resources Endangered Species Act (ESA) Programs

Agency or Organization	National Oceanic and Atmospheric Administration (NOAA)
Resource Type	Technical
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants vary depending on the funding opportunity.
Type of Assistance Provided	Financial Assistance, Technical Assistance
Restrictions	Restrictions vary depending on the funding opportunity.
Funding Available	Amount available varies depending on the funding opportunity.
Cost Sharing	Cost Sharing varies depending on the funding opportunity.
Website	https://www.fisheries.noaa.gov/about/office-protected-resources
Contact Name	NOAA Office of Science and Technology
Contact Address	1315 East-West Highway 12th Floor Silver Spring, MD 20910
Contact Phone	301-427-8100
Contact Email	None provided

About the Resource

This program manages a variety of programs to conserve, protect, and recover marine species and their habitats.

Case Study or Best Practice

More information on technical assistance and the application can be found at:

<https://www.greateratlantic.fisheries.noaa.gov/protected/section7/guidance/consultation/index.html#writing>.

Drinking Water State Revolving Fund (DWSRF)

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Loan
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	All 50 states and Puerto Rico. Also provides direct funding for the District of Columbia, U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of Northern Marianas.
Type of Assistance Provided	Financial Assistance
Restrictions	Information on restrictions can be found in the Drinking Water State Revolving Fund Eligibility Handbook, found here: https://www.epa.gov/dwsrf/dwsrf-eligibility-handbook .
Funding Available	There is an annual allotment of funding available to states, tribes, and territories. This information can be found here: https://www.epa.gov/drinkingwatersrf/annual-allotment-federal-funds-states-tribes-and-territories .
Cost Sharing	Congress appropriates funding for the DWSRF. EPA then awards capitalization grants to each state for their DWSRF based upon the results of the most recent Drinking Water Infrastructure Needs Survey and Assessment. The state provides a 20% match.
Website	https://www.epa.gov/drinkingwatersrf
Contact Name	Andrew Lausted
Contact Address	U.S. EPA Region 5 Ralph Metcalfe Federal Building 77 West Jackson Boulevard Chicago, IL 60605
Contact Phone	312-886-0190
Contact Email	lausted.andrew@epa.gov

About the Resource

Under the DWSRF, EPA provides grants to all 50 states plus Puerto Rico to capitalize on state DWSRF loan programs. The states contribute an additional 20% to match the federal grants. The program also provides direct grant funding for the District of Columbia, U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of Northern Marianas.

The 51 DWSRF programs function like infrastructure banks by providing low-interest loans to eligible recipients for drinking water infrastructure projects. As money is paid back into the state's revolving loan fund, the state makes new loans to other recipients. These recycled repayments of loan principal and interest earnings allow the state's DWSRF to "revolve" over time.

States are responsible for the operation of their DWSRF programs. Under the DWSRF, states may provide various types of assistance, including:

- Loans.
- Refinancing.
- Purchasing.
- Guaranteeing local debt.
- Purchasing bond insurance.

States may also set specific loan terms, including:

- Interest rates from 0% to market rate.
- Repayment periods of up to 30 years.

Case Study or Best Practice

Dexter, Michigan — The village of Dexter used ARRA funding to replace over 4,000 feet of old cast iron water mains. This project qualified for Green Project Reserve funding due to water loss reduction and corresponding energy savings. The system previously had around 17% real water losses.

Lanesboro, Minnesota — Struggling with iron, manganese, and radium contamination issues, Lanesboro received DWSRF funding to drill a new groundwater well and construct a new water treatment plant. Lanesboro returned to compliance in 2016 and has noticed significantly improved water quality.

Wisconsin — The Wisconsin DWSRF program provides loan principal forgiveness for replacement of privately owned lead service lines (LSL). The municipality's population size determines the maximum funding level for LSL replacement.

Funding is also available for the private portion of LSL replacement at K-12 schools and licensed daycare centers.

Bring Back the Natives

Agency or Organization	National Fish and Wildlife Foundation
Resource Type	Public
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Local government (city or county), tribal government, and local nonprofit organization.
Type of Assistance Provided	Funding Assistance
Restrictions	None specified
Funding Available	\$500,000
Cost Sharing	Unknown at this time.
Website	https://www.nfwf.org/programs/bring-back-natives?activeTab=tab-3
Contact Name	Kristin Neff
Contact Address	1133 15th Street N.W. Suite 1000 Washington, DC 20005
Contact Phone	303-222-6485
Contact Email	kirstin.neff@nfwf.org

About the Resource

The Bring Back the Natives Program focuses on restoring and protecting native fish populations across the United States and areas adjacent to federal lands.

Case Study or Best Practice

In 2017, the Riveredge Nature Center was awarded over \$162,000 in funds to reintroduce lake sturgeon in the Milwaukee River and Lake Michigan Basin. These fish had been absent for nearly 100 years prior to the project. Each year, between 1,000 and 5,000 sturgeon are raised in fisheries and released to grow the population of these Midwest water bodies.

Indian Environmental General Assistance Program (GAP)

Agency or Organization	Environmental Protection Agency
Resource Type	Public
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Tribal governments
Type of Assistance Provided	Financial Assistance, Technical Assistance
Restrictions	None specified
Funding Available	Consult the website and point of contact.
Cost Sharing	Consult the website and point of contact.
Website	https://www.epa.gov/tribal/region-5-tribal-program#gap
Contact Name	Alan Walts
Contact Address	77 West Jackson Boulevard Chicago, IL 60604
Contact Phone	312-353-8894
Contact Email	walts.alan@epa.gov

About the Resource

The goal of GAP is to assist tribes and intertribal consortia in developing the capacity to manage their own environmental protection programs and to develop and implement solid and hazardous waste programs in accordance with individual tribal needs and applicable federal laws and regulations.

Case Study or Best Practice

No case study or best practice exists for this program.

Air Grants and Funding

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Public
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Varies based on specific grant program.
Type of Assistance Provided	Financial Assistance
Restrictions	Varies based on specific grant program
Funding Available	Varies based on year
Cost Sharing	Unknown at this time.
Website	https://www.epa.gov/grants/air-grants-and-funding
Contact Name	Consult the contact form for points of contact: https://www.epa.gov/grants/forms/contact-us-about-epa-grants .
Contact Address	77 West Jackson Boulevard Chicago, IL 60604
Contact Phone	312-353-2000
Contact Email	Consult the contact form for points of contact: https://www.epa.gov/grants/forms/contact-us-about-epa-grants .

About the Resource

EPA's Office of Air and Radiation (OAR) announces competitive funding announcements for projects and programs relating to air quality, transportation, climate change, indoor air and other related topics. Organizations that can apply (eligible entities) are typically based on the funding announcements' authorizing statute and catalog of federal domestic assistance (CFDA) listing.

Case Study or Best Practice

No case study or best practice exists for this program.

Nature-Based and Green Infrastructure Solutions Grants

Agency or Organization	American Planning Association
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Local government (city or county), and Local nonprofit organizations.
Type of Assistance Provided	Financial Assistance
Restrictions	<p>Criteria for Proposed RPAT Projects:</p> <ul style="list-style-type: none"> · Recovery. Addressing an element(s) in a community's pre- or post-disaster recovery must play a role in the project. · Nature-based Solutions. There must be an interest in the potential of green infrastructure and nature-based solutions to address flooding and other water management issues. · Scope of Work. The scope of work must be manageable for a team within the timeframe allowed. Please see past CPAT projects for examples. · Point of Contact. The primary contact must have the time and resources to coordinate local partners and other project-related tasks.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://planning.org/consultants/rfp/9192471/
Contact Name	Roberta Rewers
Contact Address	205 Michigan Avenue #1200 Chicago, IL 60601
Contact Phone	312-786-6395
Contact Email	rrewers@planning.org

About the Resource

APA is currently seeking project inquiries through an initial short-form application from communities interested in exploring nature-based and green infrastructure solutions through pre- and post-disaster recovery planning. APA will follow up with select applicants for additional information before making final determinations on awards. Three grantees will be selected to receive specialized technical assistance from a Recovery Planning Assistance Team (RPAT), a subset of APA's Community Planning Assistance Teams (CPAT) program, that brings experienced volunteer planners to disaster-affected communities. All logistical expenses are funded.

Case Study or Best Practice

No case study or best practice exists for this program.

Environment Grantmaking: Climate Solutions and Great Lakes

Agency or Organization	Joyce Foundation
Resource Type	Private - Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Financial Assistance, Technical Assistance
Restrictions	Unknown at this time.
Funding Available	\$5 million
Cost Sharing	Unknown at this time.
Website	http://www.joycefdn.org/apply/what-we-fund
Contact Name	Ed Miller, Environment Program Director
Contact Address	321 N Clark Street #1500 Chicago, IL 60654
Contact Phone	312-782-2464
Contact Email	info@joycefdn.org

About the Resource

To improve the prospects for the next generation in the Great Lakes region, the Joyce Foundation will address two of the region's critical long-term environmental challenges: climate change and the health of the Great Lakes. Climate change is the biggest intergenerational threat to our communities and our planet. Failure to address it would hinder progress across all sectors. Joyce will advance public policies that promote practical climate solutions, including pursuing clean energy strategies specifically designed to remedy economic and equity issues facing the next generation in our region. For more than two decades, Joyce has been a leading funder of policy work related to the Great Lakes. The Foundation will continue to pursue efforts to protect and restore the Great Lakes, and add grants to help ensure that everyone in our region shares the most fundamental benefit of the Great Lakes: clean, safe, affordable drinking water. The Joyce Foundation seeks to support people from highly impacted communities to participate in environmental policy processes. Moreover, applicants pursuing efforts to integrate values of racial equity, social justice, inclusion, and diversity throughout their organization are invited to describe their efforts and how additional support from Joyce for those efforts would help achieve their goals.

Case Study or Best Practice

The Joyce Foundation's Grants Database can be found here: <http://www.joycefdn.org/grants>.

Ecosystem Investment Partners

Agency or Organization	Ecosystem Investment Partners
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Technical Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	ecosystempartners.com
Contact Name	Adam Davis, Managing Partner
Contact Address	5550 Newbury Street Suite B Baltimore, MD 21209
Contact Phone	443-921-9441
Contact Email	info@ecosystempartners.com adam@ecosystempartners.com

About the Resource

Ecosystem Investment Partners invests in large-scale ecological restoration projects. Ecosystem Investment Partners uses private conservation finance capital to invest in local mitigation projects.

Case Study or Best Practice

The increasing flow of capital means more, and increasingly large-scale projects. EIP's first four projects are restoring approximately 8,000 acres of wetlands. Its most recent four projects, in Minnesota, West Virginia, Louisiana, and Kentucky, will restore over 35,000 acres and 100 miles of streams, including some of the largest private restoration projects in the country to date.

More information can be found here: <https://www.forbes.com/sites/ashoka/2014/04/25/how-private-capital-is-restoring-u-s-wetlands/#36c892415e83>.

Five Star and Urban Waters Restoration Grant Program

Agency or Organization	National Fish and Wildlife Foundation
Resource Type	Private - Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants include nonprofit 501(c) organizations, state government agencies, local governments, municipal governments, Indian tribes, and educational institutions.
Type of Assistance Provided	Financial Assistance
Restrictions	Information on restrictions can be found here: https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program?activeTab=tab-3 .
Funding Available	Approximately \$1,500,000 is available nationwide for projects meeting program priorities. There is one round of full proposals annually for this program. Awards range from \$20,000 to \$50,000 with an average size of \$30,000 and 40-50 grants awarded per year.
Cost Sharing	Matching contributions consist of cash, contributed goods and services, volunteer hours, and/or property raised and spent for the project during the period of performance. Larger match ratios and matching fund contributions from a diversity of partners are encouraged and will be more competitive during application review.
Website	https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program
Contact Name	Carrie Clingan
Contact Address	1133 Fifteenth St., N.W. Suite 1000 Washington, DC 20005
Contact Phone	202-595-2471
Contact Email	carrie.clingan@nfwf.org

About the Resource

The Five Star and Urban Waters Restoration Program seeks to develop nationwide community stewardship of local natural resources, preserving these resources for future generations and enhancing habitat for local wildlife. Projects address water quality issues in priority watersheds, such as erosion due to unstable streambanks, pollution from stormwater runoff, and degraded shorelines caused by development.

Case Study or Best Practice

Habitat Restoration, Monitoring and Community Conservation in the Middle Fox River Watershed (WI), Grantee: Waukesha County Land Conservancy

Restore 150 acres of wildlife habitat, in-stream habitat and river frontage while improving overall management practices on 1,468 acres Middle Fox River watershed. The project will engage 350 volunteers to improve water quality, habitat and species diversity across eight protected preserves.

These case studies are excerpts from the NFWF publication: <https://www.nfwf.org/sites/default/files/fivestar/Documents/2019grantslate.pdf>.

National Coastal Resilience Fund

Agency or Organization	National Fish and Wildlife Foundation
Resource Type	Private - Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants include nonprofit 501(c) organizations, state and territorial government agencies, local governments, municipal governments, Native American tribal governments, educational institutions, or commercial (for-profit) organizations. Tribal governments include all Native American tribal governments (both federally recognized tribes and those tribes that are not federally recognized).
Type of Assistance Provided	Financial Assistance
Restrictions	Information on restrictions can be found here: https://www.nfwf.org/programs/national-coastal-resilience-fund/national-coastal-resilience-fund-2021-request-proposals .
Funding Available	The National Coastal Resilience Fund will award approximately \$34,000,000 in grants in 2021. Project awards are expected between \$250,000 and \$5,000,000.
Cost Sharing	A minimum 1:1 non-federal match in cash or in-kind services is expected and strongly encouraged.
Website	https://www.nfwf.org/coastalresilience/Pages/home.aspx
Contact Name	Aislinn Gauchay
Contact Address	8011 34th Avenue South Suite 242 Bloomington, MN 55425
Contact Phone	612-564-7284
Contact Email	Aislinn.Gauchay@nfwf.org

About the Resource

The National Coastal Resilience Fund restores, increases, and strengthens natural infrastructure to protect coastal communities while also enhancing habitats for fish and wildlife. Established in 2018, the National Coastal Resilience Fund invests in conservation projects that restore or expand natural features such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, forests, coastal rivers and floodplains, and barrier islands that minimize the impacts of storms and other naturally occurring events on nearby communities. The National Coastal Resilience Fund is supported by NOAA, Shell Oil Company, and TransRe.

Case Study or Best Practice

From 2006 through 2019, the program has awarded 337 grants worth \$81 million in federal and corporate partner funding. Grantees matched this funding with an additional \$93.5 million, for a total conservation investment of over \$174.5 million. Some of the important outcomes generated by this investment include 2,145 miles of restored aquatic connectivity, 42,878 acres of restored habitat, and 281 miles of restored stream and riparian habitat.

Partners for Places

Agency or Organization	Funders' Network
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Financial Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.fundersnetwork.org/partners-for-places/
Contact Name	Ashley Quintana
Contact Address	6705 SW 57th Avenue Suite 700 Coral Gables, FL 33143
Contact Phone	(305) 667-6350 ext. 201
Contact Email	ashley@fundersnetwork.org

About the Resource

A successful matching grant program, Partners for Places creates opportunities for cities and counties in the United States and Canada to improve communities by building partnerships between local government sustainability offices and place-based foundations.

Case Study or Best Practice

Cleveland, Ohio (\$50,000): To create a community-wide transition plan to 100% clean and renewable electricity that prioritizes resiliency, energy security, and green jobs for Clevelanders most in need. Matching funders: The Cleveland Foundation (\$25,000); The George Gund Foundation (\$25,000); United Black Fund of Greater Cleveland (\$4,000).

Climate Adaptation Fund

Agency or Organization	Wildlife Conservation Society (WCS)
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Financial Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.wcsclimateadaptationfund.org/
Contact Name	Elizabeth Tully, Climate Adaptation Fund Associate Director
Contact Address	None provided
Contact Phone	None provided
Contact Email	Contact via form: https://www.wcsclimateadaptationfund.org/supported-projects

About the Resource

The WCS Climate Adaptation Fund provides grant awards to conservation nonprofits across the United States to catalyze innovative, science-driven projects responding to the impacts of climate change on wildlife and people.

Case Study or Best Practice

A database of supported projects can be found here: <https://www.wcsclimateadaptationfund.org/supported-projects-1>

Climate Adaptation Case Studies and Resources

Agency or Organization	Climate Adaptation Knowledge Exchange (CAKE)
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Technical Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.cakex.org/
Contact Name	Jessica Hitt
Contact Address	P.O. Box 11195 Bainbridge Island, WA 98110
Contact Phone	206-201-3834
Contact Email	Jessica@EcoAdapt.org

About the Resource

The world's largest and most used source of climate adaptation case studies and resources. Share lessons, ideas, and opportunities with others in the field.

Case Study or Best Practice

The Fon du Lac Band of Lake Superior Chippewa are using climate change data to inform their decisions relating to planning and management, including those that deal with wildlife habitats and cultural resources. The tribe formally adopted the Kyoto Protocol in 2007 and works to reduce their carbon footprint and employ green infrastructure techniques where possible, such as rain gardens.

Climate Solutions University

Agency or Organization	Model Forest Policy Program
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Technical Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	http://www.mfpp.org/climate-solutions-university/
Contact Name	Dr. Gwen Griffith
Contact Address	P. O. Box 328 Sagle, ID 83860
Contact Phone	None provided
Contact Email	info@mfpp.org

About the Resource

Climate Solutions University is a program by the Model Forest Policy Program to help communities through a strategic process to determine where a community is most vulnerable to climate change and what action(s) can be taken.

Climate Solutions University has helped leaders in over 33 communities across the United States take the following actions:

- Build public support for climate change initiatives.
- Develop leadership skills and organizational capacity.
- Calculate the value natural resources deliver to a region.
- Prioritize the risks climate change poses to local natural resources, people, and the economy.
- Identify public policy gaps and solutions.
- Engage with the most vulnerable citizens to discover how they are impacted by climate change.
- Create adaptive goals and action steps.
- Succeed with implementation challenges like fundraising, political support, outreach and engagement, monitoring and evaluation, and implementing climate considerations into decision making process.

Case Study or Best Practice

"Climate Solutions University was an invaluable resource as we created the Nashville Area MPO's regional resilience and climate adaptation plan. The Climate Solutions University team is composed of experts in economics, public policy, environmental communication, partner engagement, environmental science, climate change, and green infrastructure, and they provided organizational support, deep knowledge of relevant issues, and kept us on track throughout the process."

~ Wesley Rhodes, 2015 Participant, Nashville Area Metropolitan Planning Organization

"Climate Solutions University provided us with the guidance and leadership necessary to conduct a successful climate adaptation planning process. It is an ideal program for organizing small-scale resources, building community relations, and conducting thorough assessments that can lead to actionable climate preparedness plans."

~ Alba Polonkey, 2015 Participant, Sustainable Sandhills (North Carolina)

In Sumner County, Tennessee the 2035 Comprehensive Plan now includes climate resilience measures including a goal for new steep slope protection ordinances, and a county wide 2% increase in tree canopy, reversing tree loss trends along headwater streams.

In Taos, New Mexico, the town awakened to water supply threats and adopted a new water conservation ordinance.

In Durango, Colorado, the Mountain Studies Institute is active in climate resilience and adaptive management through climate change monitoring for the San Juan Resource Management Plan.

In Keene, New Hampshire, the Sustainability Project members facilitated adoption of the Ashuelot River 10 year Implementation Plan. It is the first river protection document in the state to address climate change, for which they received recognition.

In Moab, Utah, the Canyonlands Watershed Council's climate planning contributed to receiving a \$50,000 grant and recently created the Moab Area Watershed Partnership (MAWP) covering over 11,000 square miles and five designated impaired water bodies.

In Norton Bay, AK, the Norton Bay Watershed Climate Adaptation and Action Plan is being used as the initial climate planning template to facilitate development of localized regional plans for the Native Alaskan Villages of Norton Sound.

"The support system Dan River Basin Association (DRBA) built through Climate Solutions University- from state and federal government agencies, to local leaders, to other environmental groups - were vital to DRBA in responding to and navigating media relations, public concerns, and corporate negotiations.because of Climate Solutions University, we were able to quickly find our bearings after the Dan River coal ash spill and move into action, into the solution. We worked with our partners to press for and won passage of the strongest coal ash management laws in the nation."

~Jenny Edwards, 2011 participant, Dan River Basin Association, NC

"I think the CSU program is well organized and in a great format for writing a climate adaptation plan. I am excited to start implementing!"

~ Morgan Green, 2014 Participant, Nisqually River Council, WA

"I highly recommend any agency seeking to pursue these issues engage MFPP for assistance. They fully understand the complexities of problems associated with forest, water and climate and how various policies can be implemented for governmental institutions to modify and change their existing directives and policies."

~ James A. Stafne, Chairman Cookeville Planning Commission, TN

Resilient Landscapes Funds

Agency or Organization	Open Space Institute (OSI)
Resource Type	Private - Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Unknown at this time.
Type of Assistance Provided	Financial Assistance
Restrictions	Unknown at this time.
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.openspaceinstitute.org/funds/resilient-landscapes-funds
Contact Name	Rebekah Gerard, Director of Administration
Contact Address	1350 Broadway Suite 201 New York, NY 10018
Contact Phone	212-290-8200
Contact Email	rgerard@osiny.org

About the Resource

OSI launched our Resilient Landscapes Initiative in 2013 to work with other land trusts to identify and protect the places where wildlife can thrive in a changing world. OSI's Resilient Landscapes Initiative is supported by the Doris Duke Charitable Foundation, Jane's Trust, the North Atlantic Landscape Cooperative and the New York State Conservation Partnership Program/Land Trust Alliance.

Case Study or Best Practice

Link to completed projects: <https://s3.amazonaws.com/osi-craft/2017-Resilient-Landscapes-Initiative-Project-Update.pdf?mtime=20170928160017>

Emergency Conservation Program (ECP)

Agency or Organization	U.S. Department of Agriculture (USDA) Farm Service Agency (FSA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Farms and ranches damaged by federally declared disasters.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	FSA county committees determine land eligibility based on on-site inspections of damaged land and the type and extent of the damage.
Funding Available	The FSA County Committee is able to approve applications up to \$50,000 while \$50,001 to \$100,000 requires state committee approval. Amounts over \$100,000 require the approval of the national FSA office.
Cost Sharing	Up to 75% of the cost to implement emergency conservation practices can be provided; however, the final amount is determined by the committee reviewing the application. Qualified limited resource producers may earn up to 90% cost-share.
Website	https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index
Contact Name	Contacts organized by state and county: https://offices.sc.egov.usda.gov/locator/app
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The ECP provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures in periods of severe drought. Funding for ECP is appropriated by Congress. ECP is administered by state and county Farm Service Agency (FSA) committees. Subject to availability of funds, locally elected county committees are authorized to implement ECP for all disasters except drought, which is authorized at the national office of FSA. The FSA County Committee inspects the damage to determine if land is eligible for ECP. For land to qualify for ECP funds, the damage from the natural disaster or severe drought must create new conservation problems that could potentially do the following:

- Further damage the land.
- Significantly affect the land's productive capacity.
- Represent damage from a natural disaster unusual for the area (an exception to this is damage from wind erosion).
- Be too costly to repair without federal assistance in order to return the land to agricultural production.

Case Study or Best Practice

There is no available best practice for the Emergency Conservation Program. However, more information on funding appropriation can be found at: <https://fas.org/sgp/crs/misc/R42854.pdf>.

Funds were allocated to the Harvey, Irma, and Maria hurricanes as well as wildfire victims. More information on this funding can be found at: <https://www.usda.gov/media/press-releases/2017/09/13/farmers-and-ranchers-affected-hurricanes-harvey-irma-granted-extra>.

Wetland Mitigation Banking Program

Agency or Organization	U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS)
Resource Type	Credit
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Tribal nations, state and local units of government, and nongovernmental organizations (NGOs), including for profit NGOs.
Type of Assistance Provided	Financial Assistance
Restrictions	None identified
Funding Available	Not applicable to this program.
Cost Sharing	Banking programs that are strictly In Lieu Fee are not eligible for the NRCS Wetland Mitigation Banking Program.
Website	https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmland/?cid=nrcseprd362686
Contact Name	Shaun Vickers, National Mitigation Banking Program Manager
Contact Address	8000 South 15th Street Lincoln, NE 68508
Contact Phone	402-560-1309
Contact Email	shaun.vickers@wdc.usda.gov

About the Resource

The Wetlands Mitigation Banking Program is used to help establish wetland mitigation banks to help producers meet their wetland conservation compliance responsibilities needed to maintain eligibility for many USDA programs administered by the FSA and NRCS and to maintain eligibility for the federal crop insurance premium subsidy administered by the Risk Management Agency.

Case Study or Best Practice

A detailed case study from the "Stanford Environmental Law Journal" (2001) can be found at:
https://discoverarchive.vanderbilt.edu/bitstream/handle/1803/6494/Integrating_Ecosystem_Services.pdf?sequence=1.

National Coastal Wetlands Conservation Grants

Agency or Organization	Department of the Interior, U.S. Fish and Wildlife Service
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Participation is limited to state agencies or entities designated as eligible by the Governor of a coastal state. It is usually a state natural resource or fish and wildlife agency.
Type of Assistance Provided	Financial Assistance
Restrictions	Funding restrictions can be found in the Fiscal Year 2022 - Notice of Funding Opportunity - NCWCG Program (page 12): https://www.fws.gov/coastal/CoastalGrants/pdfs/FOA-CONTENT-OF-F22AS00007.pdf .
Funding Available	\$18 million
Cost Sharing	The maximum federal cost-share for the NCWCG Program is 75% of total project costs in states that have a fund established and used for acquiring coastal wetlands, other natural areas, or open spaces. Projects in states that do not have such a fund are limited to a maximum 50% federal cost-share.
Website	https://www.fws.gov/coastal/CoastalGrants/index.html
Contact Name	Casey Nelson
Contact Address	5600 American Boulevard West Bloomington, MN 55437
Contact Phone	612-713-5143
Contact Email	casey_nelson@fws.gov

About the Resource

The National Coastal Wetlands Conservation Grant Program annually provides grants of up to \$1 million to coastal and Great Lakes states, as well as U.S. territories to protect, restore, and enhance coastal wetland ecosystems and associated uplands. The grants are funded through the Sport Fish Restoration and Boating Trust Fund, which is supported by excise taxes on fishing equipment and motorboat fuel.

Case Study or Best Practice

Point Au Sable Nature Preserve/Wequioc Creek Coastal Wetlands

The Wisconsin Department of Natural Resources, in partnership with the Northeast Wisconsin Land Trust and the University of Wisconsin-Green Bay, was awarded \$450,000 to acquire 73.8 acres of land along Wequioc Creek and to restore 25 acres of emergent wetlands on the adjacent Point au Sable Nature Preserve in Brown County, Wisconsin. The area attracts more than 220 species of migratory birds, including bald eagles, and is a habitat for a highly productive fish community, amphibians, bats, mammals, and invertebrates. The project will also provide opportunities for fish and wildlife-based recreation and public use and enjoyment of natural resources. The outcomes will expand educational and research opportunities at the Point au Sable Nature Preserve.

Conservation Reserve Program (CRP)

Agency or Organization	U.S. Department of Agriculture (USDA) Farm Service Agency (FSA)
Resource Type	Other
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	<p>To be eligible for CRP enrollment, a farmer must have owned or operated the land for at least 12 months prior to the previous CRP sign-up period. Exceptions to this rule include:</p> <ul style="list-style-type: none"> · Land acquired by the new owner due to the previous owner's death; · Change in ownership due to foreclosure; or · Land that was purchased by the new owner without the sole intention of placing it in CRP. <p>To be eligible for placement in CRP, land must be either: Cropland (including field margins) that is planted to an agricultural commodity four of the previous six crop years from 2008 to 2013, and which is physically and legally capable of being planted in a normal manner to an agricultural commodity; or certain marginal pastureland that is suitable for use as a riparian buffer or for similar water quality purposes.</p>
Type of Assistance Provided	Technical Assistance, Financial Assistance, Education/Outreach
Restrictions	Not identified
Funding Available	Varies by initiative.
Cost Sharing	Varies by initiative.
Website	https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/index
Contact Name	Contacts organized by state and county https://offices.sc.egov.usda.gov/locator/app
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The CRP is a voluntary program for agricultural landowners. Through CRP, landowners can receive annual rental payments and cost-share assistance to establish long-term, resource-conserving covers on eligible farmland. The Commodity Credit Corporation makes annual rental payments based on the agriculture rental value of the land, and it provides cost-share assistance for up to 50% of the participant's costs in establishing approved conservation practices. Participants enroll in CRP contracts for 10 to 15 years. CRP protects millions of acres of American topsoil from erosion and is designed to safeguard the nation's natural resources. By reducing water runoff and sedimentation, CRP protects groundwater and helps improve the condition of lakes, rivers, ponds, and streams. Acreage enrolled in the CRP is planted to resource-conserving vegetative covers, making the program a major contributor to increased wildlife populations in many parts of the country.

One initiative as part of the CRP is the Floodplain Wetlands Initiative, which restores the functions and values of wetland ecosystems that have been devoted to agricultural use. Wetland restoration reverses degradation of the wetland areas on what is often marginal soil. For farmers and landowners facing crop damage from flooding, restoring wetlands to receive floodwaters can also increase flood storage capacity – while significantly reducing farming risks.

Case Study or Best Practice

USDA Issues Conservation Payments to Wisconsin Farmers

(MADISON, Wis.) -- Oct. 28, 2019 – The U.S. Department of Agriculture's Farm Service Agency (FSA) in Wisconsin is processing \$28,637,057 in Conservation Reserve Program (CRP) rental payments to landowners to support voluntary conservation efforts on private lands.

"Annual rental payments through the Conservation Reserve Program help farmers and landowners who want to take sensitive land out of production in order to improve water quality, prevent soil erosion or create wildlife habitat," said Sandy Chalmers, Wisconsin FSA State Executive Director.

USDA began issuing 2019 CRP payments last week to support voluntary conservation efforts on private lands. In Wisconsin, 14,657 landowners will receive compensation for their efforts to improve water quality, reduce soil erosion and improve wildlife habitat on 195,482 acres enrolled in CRP throughout the state.

Tribal Climate Resilience Program

Agency or Organization	U.S. Department of the Interior (DOI), Bureau of Indian Affairs (BIA)
Resource Type	Public
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Tribal governments
Type of Assistance Provided	Funding Assistance
Restrictions	None specified
Funding Available	Between \$2,000 and \$150,000 depending on the class of project.
Cost Sharing	No cost share requirements.
Website	https://www.bia.gov/bia/ots/tribal-climate-resilience-program
Contact Name	Jo Ann Metcalfe
Contact Address	1001 Indian School Road NW Albuquerque, NM 87104
Contact Phone	None specified
Contact Email	resilience.funding@bia.gov

About the Resource

The program supports tribes as they prepare for climate change impacts on tribal treaty and trust resources, economies, infrastructure, and human health and safety. It provides funding for projects that support tribal climate resilience as tribes incorporate science (including Traditional Knowledge) and technical information, and also supports tribal ocean and coastal management and planning.

Case Study or Best Practice

No case study or best practice exists for this program.

Emergency Watershed Protection (EWP) Program

Agency or Organization	U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS)
Resource Type	Technical
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Cities, counties, towns, conservation districts, or any federally recognized Native American tribe or tribal organization.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	<p>The EWP Program cannot be used:</p> <ul style="list-style-type: none"> · To address problems that existed prior to the disaster. · To improve the level of protection above the existing level at the time of the disaster. · For projects' operation and maintenance. · To repair private or public transportation facilities or utilities. · To install non-essential restoration work that will not reduce or eliminate adverse impacts from the natural disaster. · To restore projects installed by another federal agency.
Funding Available	Not identified
Cost Sharing	For the EWP Recovery Assistance, NRCS can pay up to 75% of the cost for eligible emergency projects. Local sponsors must acquire the remaining 25% in cash or in-kind services. For the EWP Floodplain Easement, no cost sharing was identified.
Website	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
Contact Name	Shawn Anderson
Contact Address	1400 Independence Avenue Washington, DC 20250
Contact Phone	202-720-5795
Contact Email	shawn.anderson@wdc.usda.gov

About the Resource

The EWP Program allows communities to quickly address serious and long-lasting damages to infrastructure and to the land. The EWP Program authorities offer NRCS the flexibility to act quickly to help local communities cope with adverse impacts resulting from natural disasters. EWP does not require a disaster declaration by federal or state officials for program assistance to begin, but ultimately partial funding must be provided by the state legislature. If funding becomes available, all funded projects must demonstrate they reduce threats to life and property; be economically, environmentally and socially sound; and be designed to acceptable engineering standards, if applicable.

Case Study or Best Practice

Indiana (\$1,200,000)

Spring flooding several years ago damaged roadways, including a section that provides the only access to 30 homes in Carroll County, an economically depressed county. There is still a critical need to use the EWP Program to help the county strengthen and stabilize the bank of the Tippecanoe River along the threatened section of roadway. This will prevent the roadway from slipping into the river.

Rivers, Trails, and Conservation Assistance Program

Agency or Organization	National Park Service (NPS)
Resource Type	Variety
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Project applicants may be State and local agencies, Tribes, nonprofit organizations, or citizen groups. National Parks and other Federal agencies may apply in partnership with other local organizations.
Type of Assistance Provided	Technical Assistance, Education/Outreach
Restrictions	Find more information related to the application here: https://www.nps.gov/orgs/rtca/apply.htm .
Funding Available	Consult the point of contact for more information.
Cost Sharing	Consult the point of contact for more information.
Website	https://www.nps.gov/orgs/rtca/index.htm
Contact Name	David Thomson, Program Manager
Contact Address	Midwest Regional Office, 601 Riverfront Drive Omaha, NE 68102
Contact Phone	402-661-1601
Contact Email	mwr_rtca@nps.gov

About the Resource

The NPS Rivers, Trails, and Conservation Assistance program supports community-led natural resource conservation and outdoor recreation projects across the nation. NPS's national network of conservation and recreation planning professionals partners with community groups, nonprofits, tribes, and state and local governments to design trails and parks, conserve and improve access to rivers, protect special places, and create recreation opportunities.

Case Study or Best Practice

Village of Summit, Illinois

In 2018, NPS staff assisted the village of Summit with a proposal to develop an underutilized 3-acre property into an improved community recreation area. NPS staff convened a workshop resulting in the development of a vision statement and strategic goals with corresponding objectives that guided future planning conversations. NPS continued to assist local partners by coordinating and hosting a partner charrette. Representatives from over nine different organizations met for an opportunity to visit the site in person and develop ideas for transforming the space into a recreational, cultural, and environmental amenity for the community. A local architecture firm later provided pro-bono support to visualize these ideas in conceptual renderings and potential site plans. The NPS will continue to provide assistance with strategic planning and partner engagement.

More information on this case study can be found here <https://www.nps.gov/gis/storymaps/maptour/v3/index.html?appid=5a02d6a2d77d412f8790583f553154b8>

Environmental Quality Incentives Program (EQIP)

Agency or Organization	U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	<p>Applications will be accepted for all eligible lands and persons. Eligible land includes:</p> <ul style="list-style-type: none"> · Cropland and Hayland. · Rangeland. · Pastureland. · Non-industrial private forestland. · Other farm or ranch lands. · Environmentally sensitive areas. <p>Eligible person(s) include:</p> <ul style="list-style-type: none"> · Agricultural producers. · Owners of non-industrial private forestland. · Indian tribes. · Those with an interest in the agricultural or forestry operations.
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	More information can be found here: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/eqip/?cid=nrcseprd1342638 .
Funding Available	EQIP obligations by state can be found here: https://www.nrcs.usda.gov/Internet/NRCS_RCA/reports/fb08_cp_eqip.html .
Cost Sharing	Unknown at this time.
Website	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/
Contact Name	Contacts available by state: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

The 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 increasing weather volatility.

Case Study or Best Practice

The NRCS is working with private forest landowners to protect, restore, and improve longleaf pine ecosystems in Bamberg and Barnwell counties, SC. With 53 contracts on nearly 2,700 acres, longleaf pines are intensively managed with conservation practices such as forest stand improvement, prescribed burning, mechanical understory control, native warm season grass species plantings, and tree establishment. Hundreds of acres of longleaf are being restored to viable fire-dependent systems.

One area (150 acres) of longleaf restoration is on three adjacent properties in the northwest portion of Bamberg County, near the Barnwell County line. Joe and Brenda Nettles restored 62 acres by establishing native warm season grasses and forb species between rows of tree seedlings. These will provide spring nesting habitat and winter cover for songbirds, bedding for deer, and food and cover for bobwhite quail and wild turkey. Partridge pea, black-eyed Susan, maximillian sunflower, and Florida beggar lice provide seeds for food and attract insects. Little bluestem, Indian grass, and switch grass provide important nesting habitat. All these species are excellent fuels for carrying fire to enhance the system, and the forbs provide excellent pollinator habitat.

Johney Haralson, an adjacent landowner, restored and improved almost 90 acres of longleaf by wildlife food plot establishment, prescribed fires, and mechanical thinning. The fires and thinning increase the overall diversity of vegetation, improve tree health, and promote vigorous growth, making the trees more resilient to bark beetles. Haralson also removed undesirable hardwood understory to restore the site to its natural conditions (fire-tolerant and dependent species) as an 85-year-old longleaf pine stand, thus improving plant diversity and wildlife habitat.

This case study is an excerpt from: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sc/programs/landscape/?cid=nrcs142p2_015547.

Section 404 of the Clean Water Act - Compensatory Mitigation

Agency or Organization	U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE)
Resource Type	Variety
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Non-federal partner
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	More information on restrictions and use of the funds can be found in Section 404 (b)(1) Guidance, located here: https://www.epa.gov/sites/production/files/2015-03/documents/cwa_section404b1_guidelines_40cfr230_july2010.pdf
Funding Available	Varies depending on the program.
Cost Sharing	Consult the point of contact for more information on cost sharing.
Website	https://www.epa.gov/cwa-404/compensatory-mitigation
Contact Name	Wendy Melgin
Contact Address	Ralph Metcalfe Federal Building 77 West Jackson Boulevard M.C. #SE-5J Chicago, IL 60604
Contact Phone	312-886-7745
Contact Email	Melgin.Wendy@epa.gov

About the Resource

In 2008, the EPA and the USACE jointly promulgated regulations revising and clarifying requirements regarding compensatory mitigation. According to these regulations, compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances, preservation of wetlands, streams, and other aquatic resources for the purposes of offsetting unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization has been achieved.

Under the regulations, there are three mechanisms for providing compensatory mitigation (listed in order of preference as established by the regulations): mitigation banks, in-lieu fee programs, and permittee-responsible mitigation.

Case Study or Best Practice

The Mā'alaea Harbor navigation improvement project on the island of Maui, Hawaii, proposed expanding the existing breakwater to improve access to a small boat harbor during certain wave conditions. Between 1982 and 1998, public comments on the environmental impact statement (EIS) raised concerns regarding potential impacts to coral reef habitats and other issues. Due to funding constraints encountered when addressing the complex issues around coral reef mitigation, it took until 2012 for the project proponents—the state of Hawaii and USACE—to make a final decision on the project.

As a result of public comment, the project proponents modified the alternatives analysis approach to be a more collaborative process with resource agencies and community groups. When updating models to better scale the breakwater, USACE engaged with federal resource agencies to improve understanding of the resource and to communicate navigational and engineering constraints and technical issues for the project. In re-evaluating potential alternatives, USACE engaged the U.S. Fish and Wildlife Service and National Marine Fisheries Service in a phased approach to impact assessment, first mapping the extent of the coral reef habitat and rating areas of higher quality that would benefit from protection (i.e., avoidance). Based on the initial mapping, they overlaid the potential alternatives and re-evaluated to seek the best opportunity to maximize avoidance and minimization. Through collaboration with community groups and users in 2010, USACE and the state of Hawaii developed a better understanding of the navigational constraints for the harbor and how users were adapting to the conditions.

Based on the users' and resource agencies' input and the coastal engineers' expertise, they determined that the best solution for the state of Hawaii was to terminate the proposed breakwater expansion and instead focus on facility improvements to better protect the vessels while moored.

More information on federal case studies can be found at: https://data.nodc.noaa.gov/coris/library/NOAA/CRCP/other/USCRTF/mitigation_handbook_final_122216.pdf, beginning on page 72.

More information on state case studies can be found at: <https://www.epa.gov/cwa-404/compensatory-mitigation-evaluations-and-reports>. Further resources after the 2008 Final Rule can be found at: <https://www.epa.gov/cwa-404/compensatory-mitigation>.

Forest Legacy Program (FLP)

Agency or Organization	U.S. Department of Agriculture (USDA)/U.S. Forest Service (USFS)
Resource Type	Purchase
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	<p>A proposed project is eligible if it meets federal requirements as well as minimum eligibility:</p> <ul style="list-style-type: none"> · It is within, or partially within, a designated FLA; · It has a minimum of 75% forestland or a documented plan that includes sufficient landowner capacity to reforest to at least 75% forestland; · It can be managed consistent with the purpose for which it was acquired by FLP; · The landowner is willing to sell or donate the interest in perpetuity; and · The landowner acknowledges that the conservation easement will be held by a government entity if federal funds are used for the acquisition.
Type of Assistance Provided	Financial Assistance
Restrictions	None identified
Funding Available	States can submit up to three projects, which cannot exceed \$10 million (individual projects cannot exceed \$7 million).
Cost Sharing	At least 25% of the total project cost.
Website	https://www.fs.fed.us/managing-land/private-land/forest-legacy/program
Contact Name	Scott Stewart
Contact Address	201 14th Street Washington, DC 20024
Contact Phone	202-205-1618
Contact Email	sstewart@fs.fed.us

About the Resource

The purpose of the FLP is to identify and conserve environmentally important forest areas that are threatened by conversion to non-forest uses. Providing economic incentives to landowners to keep their forest as forests encourages sustainable forest management and supports strong markets for forest products.

Landowners may participate in the FLP by either selling their property outright or by retaining ownership and selling only a portion of the property's development rights; both are held by state agencies or another unit of government. The use of a conservation easement, a legal agreement between a landowner and a nonprofit land trust or governmental agency, allows the land to remain in private ownership while ensuring that its environmental values are retained.

The program is funded by the Land and Water Conservation Fund, which invests a small percentage of federal offshore drilling fees toward the conservation of important land, water, and recreation areas for all Americans.

Case Study or Best Practice

A complete list of funding and accomplishments, as well as program guidelines and performance measurements, can be found at: <https://www.fs.fed.us/managing-land/private-land/forest-legacy/program>. Additionally, the project selection process for Fiscal Year 2021 can be found at: <https://www.fs.fed.us/sites/default/files/2019-07/fy2021-project-selection-process-flp.pdf>.

Clean Water State Revolving Fund (CWSRF)

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Loan
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	None identified
Type of Assistance Provided	Technical Assistance, Financial Assistance
Restrictions	Information on restrictions can be found in the Drinking Water State Revolving Fund Eligibility Handbook, found here: https://www.epa.gov/dwsrf/dwsrf-eligibility-handbook .
Funding Available	Varies depending on state or disaster. More information on historic available funds can be found here: https://www.epa.gov/drinkingwatersrf/annual-allotment-federal-funds-states-tribes-and-territories#tab-9 .
Cost Sharing	Not identified
Website	https://www.epa.gov/cwsrf
Contact Name	Andrew Lausted
Contact Address	U.S. EPA Region 5 Ralph Metcalfe Federal Building 77 West Jackson Boulevard Chicago, IL 60604
Contact Phone	312-886-0189
Contact Email	lausted.andrew@epa.gov

About the Resource

The CWSRF program is a federal-state partnership that provides communities with a permanent, independent source of low-cost financing for a wide range of water quality infrastructure projects. The CWSRF program can fund a wide variety of water quality protection efforts. The program's flexibility and broad range of project eligibilities enable states to target CWSRF funds to their specific water quality priorities. State innovation and statutory changes have resulted in an evolution of project eligibilities since the program was authorized in 1987.

Case Study or Best Practice

Ohio has used a linked-deposit loan program since 1993 to fund projects that support county watershed management plans. This program has funded more than 300 projects, including the repair of onsite wastewater treatment systems and the implementation of best management practices for agriculture, forestry, stormwater, and land development. The CWSRF program developed this program with the help of county soil and water conservation districts and local banks.

The CWSRF program implements its linked deposit loan program one county at a time. Each county's program is developed with two concurrent steps: the county soil and water conservation district develop a watershed management plan, and the CWSRF program and local financial institutions enter into agreements describing requirements and procedures for linked deposit loans.

Watershed management plans describe a watershed, identify sources of pollution, suggest actions that would address those pollution sources, prioritize water quality problems, identify sources of funding, and establish an implementation schedule. Ohio EPA and a formal public review process reviews the county soil and water district's draft plan. If Ohio EPA approves a plan after this review, the CWSRF program and the soil and water conservation district sign a memorandum of understanding that describes how these two entities will coordinate their implementation of the management plan.

More information on case studies can be found at <https://www3.epa.gov/npdes/pubs/linkeddepositfinalprint.pdf>.

Great Lakes Funding

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Grants, Cooperative Agreements, Contracts
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Varies depending on project type and Request for Applications.
Type of Assistance Provided	Financial Assistance
Restrictions	Varies depending on project type and Request for Applications
Funding Available	Varies depending on project type and Request for Applications.
Cost Sharing	Unknown at this time.
Website	https://www.epa.gov/great-lakes-funding
Contact Name	Michael Russ
Contact Address	U.S. EPA Region 5 Ralph Metcalfe Federal Building 77 West Jackson Boulevard Chicago, IL 60604
Contact Phone	312-886-4013
Contact Email	russ.michael@epa.gov

About the Resource

EPA's Great Lakes program administers grants, cooperative agreements and contracts. The Great Lakes Restoration Initiative is the largest investment in the Great Lakes in two decades and funds a variety of activities including grants and the direct implementation of Great Lakes Legacy Act projects.

Case Study or Best Practice

A list of Great Lakes Legacy Act projects, and their description, can be found at <https://www.epa.gov/great-lakes-aocs/great-lakes-legacy-act-projects>.

Urban Waters Small Grants

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Eligible applicants include states, local governments, Indian tribes, public and private universities and colleges, public or private nonprofit institutions/organizations, intertribal consortia, and interstate agencies.
Type of Assistance Provided	Financial Assistance
Restrictions	Currently there is no open Request for Proposal
Funding Available	Unknown at this time.
Cost Sharing	Unknown at this time.
Website	https://www.epa.gov/urbanwaters/urban-waters-small-grants#main-content
Contact Name	U.S. EPA Region 5
Contact Address	Ralph Metcalfe Federal Building 77 West Jackson Boulevard Chicago, IL 60604
Contact Phone	312-353-2000
Contact Email	r5hotline@epa.gov

About the Resource

Since its inception in 2012, the Urban Waters Small Grants Program has awarded approximately \$6.6 million in grants to 114 organizations across the country and in Puerto Rico. The grants are competed and awarded every 2 years, with individual award amounts of up to \$60,000.

Healthy and accessible urban waters can help grow local businesses and enhance educational, recreational, social and employment opportunities in nearby communities. Urban Waters Small Grants are expanding communities' ability to engage in activities that improve water quality in a way that also advances community priorities.

Improving urban waters requires various levels of government and local partners (community residents, local businesses, etc.) to work together in developing effective and long-term solutions with multiple benefits. EPA supports and empowers communities, especially in under-served areas, who are working on solutions to address multiple community needs and fostering successful collaborative partnerships.

Case Study or Best Practice

Bay-Lake Regional Planning Commission, Green Bay, Wisconsin- Year: 2011-2012

Bay-Lake Regional Planning Commission will perform water quality monitoring at Bay Beach in Green Bay, Wisconsin to identify pollution sources. Monitoring results will drive the development of a restoration action plan that includes an engineering plan for beach redesign to mitigate the issues. Award Amount: \$59,995.

Tribal Wetland Program Development

Agency or Organization	U.S. Environmental Protection Agency (EPA)
Resource Type	Grant
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Natural Systems Protection
Eligible Applicants	Tribes and intertribal consortia.
Type of Assistance Provided	Financial Assistance
Restrictions	Consult the website and point of contact for this information.
Funding Available	Awards range from \$25,000 to \$250,000.
Cost Sharing	Consult the website and point of contact for this information.
Website	https://www.epa.gov/wetlands/tribal-wetland-program-development-grant-request-applications
Contact Name	Myra Price
Contact Address	1090 Vermont Avenue, Suite 800, Washington, D.C., 20005
Contact Phone	202-566-1225
Contact Email	price.myra@epa.gov

About the Resource

Tribal Wetland Program Development Grants (WPDGs) assist tribal governments and intertribal consortia to develop or refine tribal programs which protect, manage, and restore wetlands. The primary focus of these grants is to develop/refine tribal wetland programs. The goals of EPA's wetland program include increasing the quantity and quality of wetlands in the United States by conserving and restoring wetland acreage and improving wetland condition. In pursuing these goals, EPA seeks to develop the capacity of all levels of government to develop and refine effective, comprehensive programs for wetland protection and management.

Case Study or Best Practice

No case study or best practice exists for this program.

Aquatic Ecosystem Restoration

Agency or Organization	U.S. Army Corps of Engineers (USACE)
Resource Type	Technical
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Non-federal sponsor
Type of Assistance Provided	Financial Assistance
Restrictions	The USACE evaluates projects that benefit the environment through restoring, improving, or protecting aquatic habitat for plants, fish, and wildlife. A project is accepted for construction after a detailed investigation shows it is technically feasible and environmentally acceptable, and it provides cost-effective environmental benefits.
Funding Available	The maximum federal expenditure per project is \$10 million, which includes both planning and construction costs.
Cost Sharing	Studies are accomplished at full federal expense up to \$100,000; remaining study costs are cost-shared 50/50; design and implementation costs are cost-shared 65% federal, 35% local sponsor.
Website	https://www.mvp.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/588164/fact-sheet-17-aquatic-ecosystem-restoration-sec-206/
Contact Name	Nate Wallerstedt
Contact Address	180 5th Street East Suite 700 St. Paul, MN 55101
Contact Phone	651-290-5477
Contact Email	nathan.h.wallerstedt@usace.army.mil

About the Resource

The USACE is comprised of approximately 30,000 civilian and military personnel, making it the world's largest public engineering, design and construction management agency. Although generally associated with flood risk management, the environmental mission is a main function of the organization.

Ecosystem restoration is the process of assisting in the recovery of ecosystems that have been degraded, damaged, or destroyed and focuses on establishing the ecological processes necessary to make terrestrial and aquatic ecosystems sustainable, resilient, and healthy under current and future conditions. The focus of the USACE ecosystem restoration program is on water-related ecosystem projects, including restoration of wetland, riparian, and aquatic systems. Although the USACE sometimes does become involved in broader restoration projects, USACE policy is that there has to be a water nexus, as other federal agencies have missions and funding specifically for restoration of upland habitats – like the U.S. Forest Service. As such, the USACE's focus is on wetlands, submerged aquatic vegetation, oyster reefs, riparian forest, and wet prairie.

The USACE works to restore degraded ecosystems to a more natural condition through large-scale ecosystem restoration projects, such as the Comprehensive Everglades Restoration, Louisiana Coastal Area Ecosystem Restoration, Chesapeake Bay Oyster Recovery, Aransas National Wildlife Refuge Beneficial Use of Dredged Material (restoration of marsh critical to the endangered Whooping Crane), and Houston Ship Channel Beneficial Use of Dredged Material (marsh restoration in Galveston Bay), and by employing system-wide watershed approaches to problem solving and management for smaller ecosystem restoration projects.

Case Study or Best Practice

Galveston, Texas

The USACE Galveston District has a number of projects all along the Texas coast that use dredged material from its maintenance dredging program beneficially to create marsh, restore seagrass, and provide bird rookeries, including projects in Galveston Bay, Matagorda Bay, Corpus Christi Bay, the Aransas National Wildlife Refuge, and the Laguna Madre. The USACE will cost-share an oyster reef restoration in Matagorda Bay with The Nature Conservancy in the near future. The USACE has initiated a comprehensive study of the upper Texas coast from Sabine to Galveston in collaboration with the Texas General Land Office that will look for opportunities for large-scale ecosystem restoration projects to protect not only habitats but the Texas coast from storm surge and erosion.

More information on Aquatic Ecosystem Restoration can be found at:

<https://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/477888/what-is-ecosystem-restoration/>.

Drought Assistance Programs

Agency or Organization	U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS)
Resource Type	Variety
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	Eligibility depends on the program.
Type of Assistance Provided	Technical Assistance, Financial Assistance, Education and Outreach
Restrictions	Restrictions depend on the program.
Funding Available	Amount available depends on the program.
Cost Sharing	None identified
Website	https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index
Contact Name	Contacts organized by state: https://www.fsa.usda.gov/state-offices/index .
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

A variety of programs related to drought assistance.

Case Study or Best Practice

Discussions with Californian farmers took place on how USDA can further help them with available resources. While the discussion centered on concerns over water supply, the Natural Resources Conservation Service's (NRCS) recommended conservation practices have helped them better prepare for the state's historic water shortage.

These farmers are constantly looking for ways to maximize their available water. They have worked with NRCS to use water management techniques to assess the appropriate amount of water to apply in the correct intervals, and the use of a permanent cover crop and mulch to increase the soil's health and water holding capacity. They also continually visit with the local Farm Bureau, wine grape growers association, and others to find ways to work together to get through this dry period. Together, they have considered a number of innovative approaches, including creating a community composting site.

Each of these farmers was clear-eyed about the challenge ahead. They recognize that droughts are part of California's history and will be part of their future. While they are very concerned about the effect of the state's most severe drought on record, they haven't given up hope and are eager to invest in conservation practices that will allow them to mitigate the effects of this and future droughts. What was observed in California underscores the importance of having the full array of tools and programs so that USDA can help meet the needs of farmers in California and across the country. It underscores the importance of the federal government working collaboratively under President Obama's National Drought Resilience Partnership to help states and rural communities build their resilience now and in the future.

More information can be found here: <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/home/?cid=stelprdb1245689>.

Water and Waste Disposal Loan and Grant Program

Agency or Organization	U.S. Department of Agriculture (USDA) Rural Housing Service (RHS)
Resource Type	Grant, Loan
Primary Recovery Function	Natural and Cultural Resources
Type of Mitigation Action	Structure and Infrastructure Projects
Eligible Applicants	<p>Qualified applicants who are not otherwise able to obtain commercial credit on reasonable terms. Eligible applicants include:</p> <ul style="list-style-type: none"> · Most state and local governmental entities. · Private nonprofits. · Federally recognized tribes.
Type of Assistance Provided	Financial Assistance
Restrictions	<p>Funds may be used to finance the acquisition, construction, or improvement of:</p> <ul style="list-style-type: none"> · Drinking water sourcing, treatment, storage, and distribution · Sewer collection, transmission, treatment, and disposal · Solid waste collection, disposal, and closure · Storm water collection, transmission, and disposal <p>In some cases, funding may also be available for related activities such as:</p> <ul style="list-style-type: none"> · Legal and engineering fees · Land acquisition, water and land rights, permits and equipment · Start-up operations and maintenance · Interest incurred during construction · Purchase of facilities to improve service or prevent loss of service · Other costs determined to be necessary for completion of the project <p>See 7 CFR Part 1780.7 and 1780.9 for a complete list of uses and restrictions for this program.</p>
Funding Available	Not identified, as funds are often long-term, low-interest loans or, if funds are available, a grant may be combined with a loan to keep user costs reasonable.
Cost Sharing	Not identified
Website	https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program
Contact Name	<p>Contacts organized by state</p> <p>https://www.rd.usda.gov/contact-us/State-offices</p>
Contact Address	See above
Contact Phone	See above
Contact Email	See above

About the Resource

This program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.

Case Study or Best Practice

The Forest Park Tenants' Association Cooperative in Jaffrey, New Hampshire, will use a \$2 million loan and a \$1.4 million grant to make water, wastewater, and stormwater improvements at a 116-unit housing park. The current system no longer works properly, causing water loss and frequent sewage line blockages. They will replace all water mains and a section of the sewer main, and install a stormwater management system. The project also includes roadway improvements that will be funded through a Community Development Block Grant. (Source: WBIW.com, 11/19/2019)



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EXISTING RESOURCE IN THE GUIDE OR A NEW RESOURCE TO ADD TO THE GUIDE?

NEW

EXISTING

NAME OF THE RESOURCE

LOCATION OF THE RESOURCE (STATE, TRIBAL, FEDERAL)

MORE INFORMATION OR COMMENT



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