



MITIGATION ASSISTANCE RESOURCE GUIDE

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

 STATE OF MICHIGAN



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.

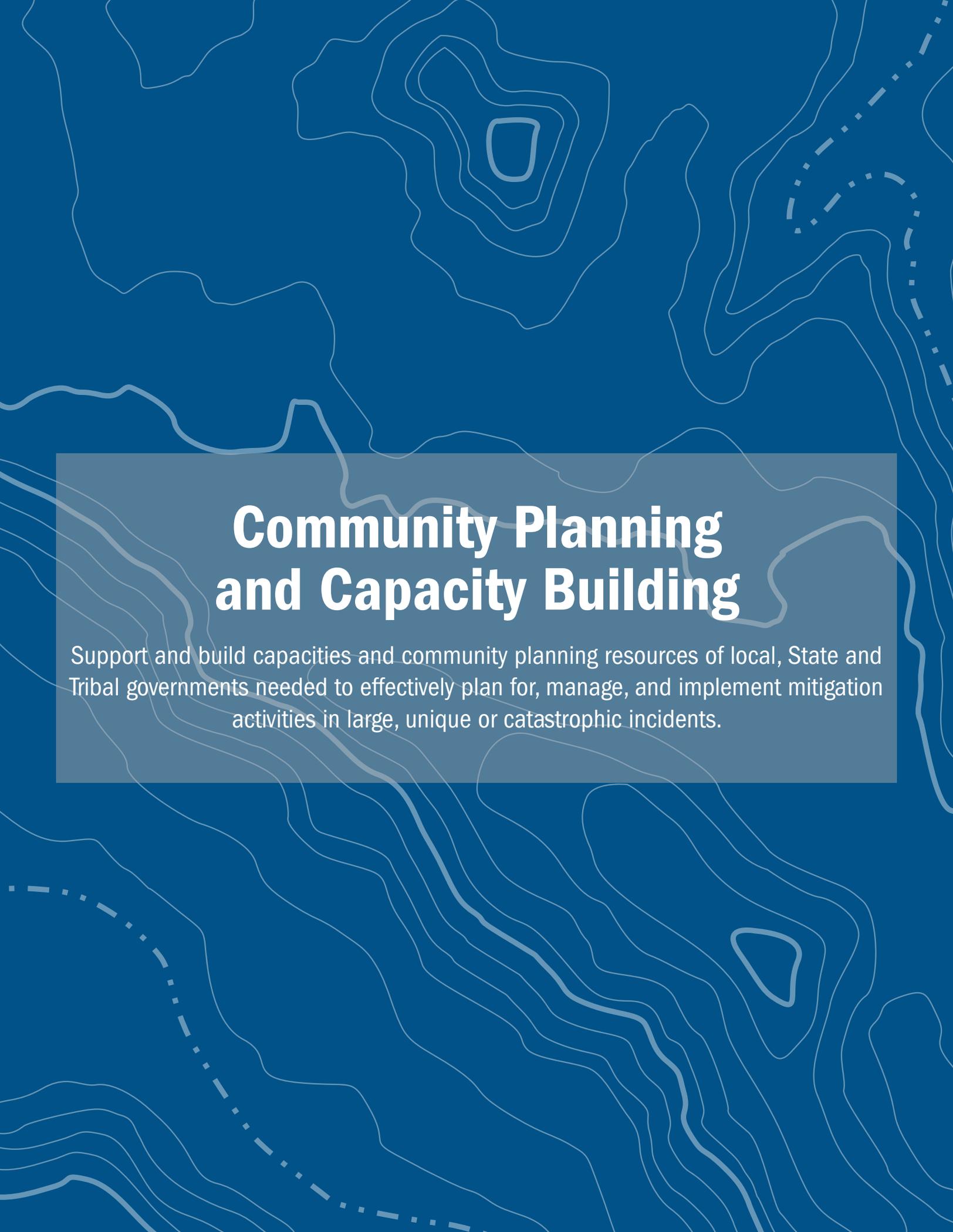
MITIGATION FUNDING AT EVERY LEVEL IN GRANITE FALLS, MN

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.

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.

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.

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 for 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 | Detroit Field Office |
| Contact Address | McNamara Federal Building 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 313-226-7900 |
| Contact Email | michael.l.polsinelli@hud.gov |

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 developing and adopting 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 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.

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's 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/preparedness/emergency-management-performance |
| 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, territorial, and tribal 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 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 | States and territories that have had a major disaster declaration under the Stafford Act in the seven years prior to the annual application period start date are eligible to apply to FEMA for federal assistance under BRIC as applicants. Local governments and tribes are eligible to apply to states and territories as subapplicants. |
| 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

BRIC is designed to support states, local communities, tribes and territories, as they undertake hazard mitigation projects to reduce the risks they face from disasters and natural hazards. This new FEMA pre-disaster hazard mitigation program replaces the existing Pre-Disaster Mitigation (PDM) program as 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's 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 stakeholders 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.

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.usda.gov/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-uses 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 the 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 watershed 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) 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, but can be used for cost-sharing purposes for other federal programs. |
| Website | https://www.hudexchange.info/programs/cdbg-mit/ |
| 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 is available yet. For 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>

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 also depends 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.lrb.usace.army.mil/Missions/Civil-Works/Flood-Plain-Management/ |
| Contact Name | Mary Weidel |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 313-226-3393 |
| Contact Email | Mary.T.Weidel@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/hazards, dam failure analyses, hurricane evacuation, flood warning, floodway, flood damage reduction, stormwater management, floodproofing, and inventories of floodprone 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 toll-free number. Since its inception, the database has logged 324 calls. Of those, two originated in Virginia, 27 in Kentucky, 80 in Ohio, and 215 in 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 Flood Insurance Rate Map determinations, Base Flood Elevation requests, miscellaneous map requests, and general questions about the USACE and the National Flood Insurance Program.

More information on best practices can be found at: <https://www.hsd1.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 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 the costs it incurs 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 | Detroit Field Office |
| Contact Address | McNamara Federal Building 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 313-226-7900 |
| Contact Email | michael.l.polsinelli@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 created 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 5 and across the country can be found at: <https://www.hudexchange.info/programs/cdbg/project-profiles/>.

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 based on 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/ https://www.hudexchange.info/programs/cdbg-dr/cdbg-dr-grantee-contact-information/#all-disasters |
| Contact Name | Contacts 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. Regulations can be found in 24 CFR 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 Cleveland County CDBG-DR funding under the Disaster Relief Appropriations Act. During active recovery, localities hire contractors to perform construction, administration, and other tasks. However, recipients of CDBG-DR funds 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 record-keeping. 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 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. It 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 used on the six remaining projects. Specialized consultants can help localities continue to take progressive measures even after long-term recovery is complete, by improving problem areas and incorporating successful strategies into the county's disaster response and recovery procedures.

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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 projects, 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 for wildfires, volcanic eruptions, earthquakes, and other natural disasters occurring in 2018, and tornadoes and floods occurring in 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>.

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 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 for staying in business after a major disaster.

Case Study or Best Practice

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

Additionally, Publication 547 provides examples of 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>.

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. The 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 | Keith E. Hernandez Director, Community Planning and Development |
| Contact Address | McNamara Federal Building 477 Michigan Avenue 17th Floor Detroit, MI 48226 |
| Contact Phone | 313-234-7326 |
| Contact Email | Keith.E.Hernandez@hud.gov |

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 to 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'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 here: <https://www.hudexchange.info/resources/documents/2013-Section-108-Guaranteed-Loan-Program-Overview.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 · Replace 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 Michigan state Executive Director Joel Johnson |
| Contact Address | 3001 Coolidge Rd, Suite 350 East Lansing, MI 48823 |
| Contact Phone | 202-690-2350 517-324-5110 |
| Contact Email | Contacts available by state and county https://offices.sc.egov.usda.gov/locator/app |

About the Resource

The Agricultural Act of 2014 (the 2014 Farm Bill) authorized the Tree Assistance Program (TAP) to provide financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate eligible trees, bushes and vines damaged by natural disasters. The 2014 Farm Bill makes TAP a permanent disaster program and provides retroactive authority to cover eligible losses back to Oct. 1, 2011. The Bipartisan Budget Act of 2018 made several changes to TAP, including removing the per person and legal entity program year payment limitation ceiling of \$125,000. It also increased the acreage cap, and growers are eligible to be partly reimbursed for losses on up to 1,000 acres per program year, double the previous acreage.

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 6-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 of the match is not identified. |
| Website | https://www.eda.gov/disaster-recovery/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 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 . See note above |
| 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-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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Health and Social Services

Assist locally-led recovery efforts in the restoration of the public health, health care, and social services networks to promote the resilience, health, and well-being of affected individuals and communities.



Green Revolving Fund

| | |
|------------------------------------|---|
| Agency or Organization | Michigan Renewable Schools Program |
| Resource Type | Private - Loan |
| Primary Recovery Function | Health and Social Services |
| Type of Mitigation Action | Education and Awareness Programs |
| Eligible Applicants | Schools. In general, eligible projects include lighting upgrades; heating, ventilation, and air conditioning enhancements; food service measures; building envelope improvements; and building operations. Additional projects may be deemed eligible through a business energy assessment conducted by a certified professional. |
| 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.ecocenter.org/green-revolving-fund |
| Contact Name | Charles Griffith, Director, Climate and Energy Program |
| Contact Address | 4750 Woodward Ave Detroit, MI 48201 |
| Contact Phone | 313-881-2263 734-369-9275 |
| Contact Email | charlesg@ecocenter.org |

About the Resource

Michigan K-12 public school districts are continually seeking ways to increase operating efficiencies to provide first-rate educational facilities for students and teachers. Often, operating expenses represent one of the largest budget line items within a school district, second only to salaries. With limited funds for capital improvements and rising utility bills, a green revolving fund (GRF) can help school districts avoid unnecessary operating costs, save money on energy expenses, and improve instructional environments.

A GRF is an internal investment tool that helps school districts establish a sustainable funding stream for facility improvements, all while reducing environmental impacts and improving your bottom line. The cost savings from building upgrades are returned to the GRF account from which they originated, allowing the account to grow and make additional project investments over time. The account balance of a GRF can act as either a direct cash loan or serve as collateral to leverage low-cost financing.

Case Study or Best Practice

None identified.

Wege Grant Program

| | |
|------------------------------------|--|
| Agency or Organization | The Wege Foundation |
| Resource Type | Private - Grant |
| Primary Recovery Function | Health and Social Services |
| Type of Mitigation Action | Education and Awareness Programs |
| Eligible Applicants | Must be a tax-exempt organization. Take the Eligibility Quiz to determine eligibility: https://www.wegefoundation.org/eligibility-quiz/ . |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Should serve the Kent County and Grand Rapids metropolitan area. |
| Funding Available | Unknown at this time. |
| Cost Sharing | Unknown at this time. |
| Website | https://wegefoundation.com/grants/ |
| Contact Name | M Alemán-McAlpine |
| Contact Address | 99 Monroe Avenue NW Suite 902 Grand Rapids, MI 49503 |
| Contact Phone | 616-957-0480 |
| Contact Email | mamcalpine@wegefoundation.org |

About the Resource

The Wege Foundation accepts online applications twice a year, in the spring and fall, from any current 501(c)(3) organization.

Case Study or Best Practice

The Wege Price 2020 Design Competition winners can be found here: <https://wegefoundation.com/wege-prize-2020-design-competition-winners/>.

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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 | Jason Allen, State Director |
| Contact Address | 3001 Coolidge Road Suite 200 East Lansing, MI 48823 |
| Contact Phone | 517-324-5190 |
| Contact Email | Unknown at this time. |

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 to 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 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 complies with the Americans with Disability Act standards. During those critical repairs, the rest of the building was also updated. The kitchen, dining room, day room, restrooms, and showers were remodeled. An elevator was installed. The heating, air conditioning, and sprinkler systems were replaced. The bays were widened to accommodate modern, larger vehicles, and the remaining space was converted into a weight room. In addition, five new bunk rooms were constructed, and the conference room was updated.

"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 for 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>.

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 | 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 not have 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 own or lease 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>.

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 |

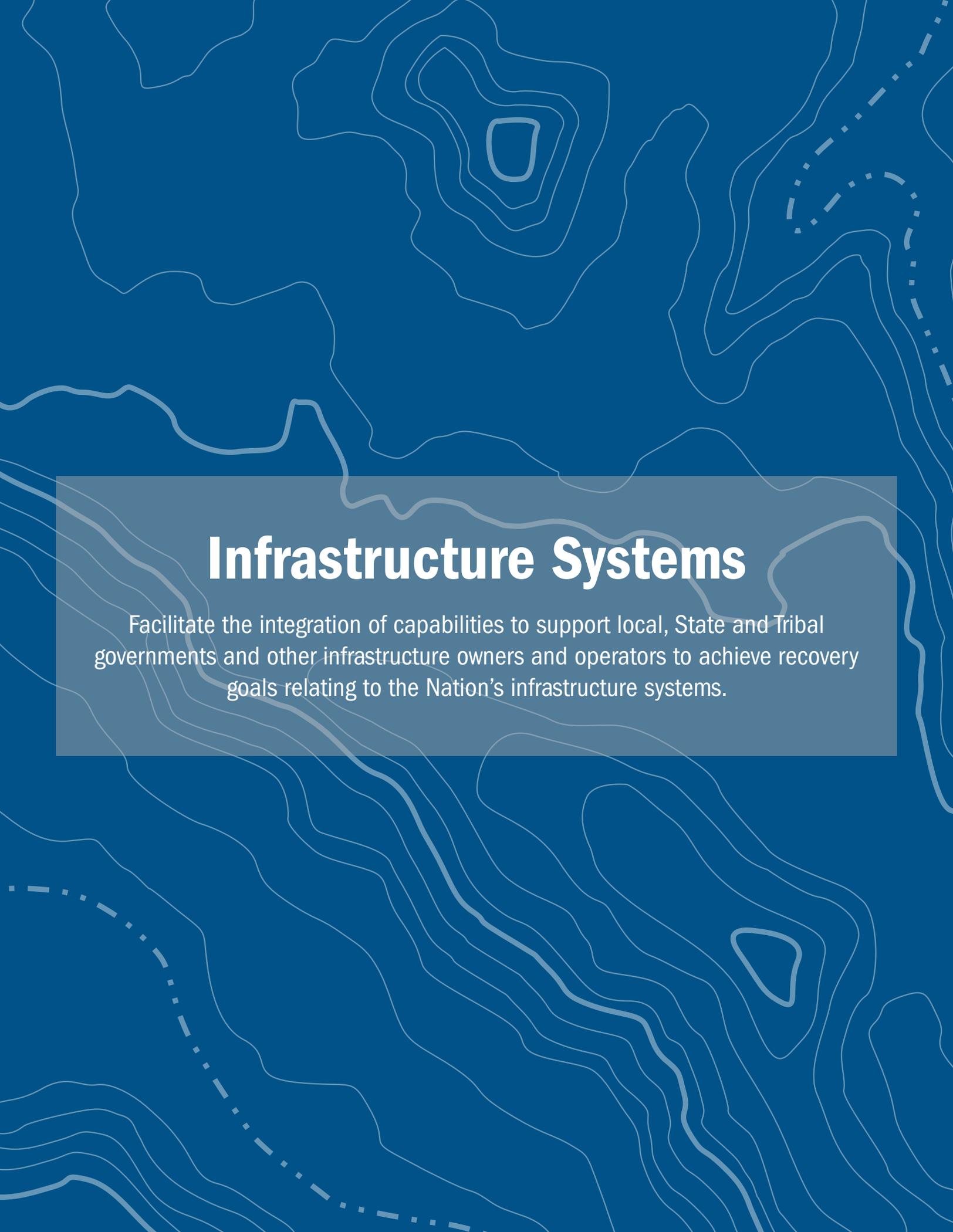
About the Resource

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) allows 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.

The background of the entire page is a topographic map with white contour lines on a dark blue background. The map features several peaks and valleys, with a prominent peak in the upper center and another in the lower right. A dashed white line, likely representing a road or boundary, winds across the map from the top right towards the bottom left.

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

Lansing, Michigan

Lansing received assistance to develop options for transforming a 10-acre parking lot between the state Capitol and Hall of Justice into a public park that incorporates green infrastructure to reduce flooding and water pollution and spurs investment in nearby vacant and neglected property. Options for adjacent streets would calm traffic and improve walkability and transportation options for residents, visitors, and workers.

More information on projects can be 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. The 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 | Federal funding is available for up to 75% of the eligible activity costs. |
| Website | https://www.fema.gov/flood-mitigation-assistance-grant-program |
| 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 reduce or eliminate 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 funding through the Flood Mitigation Assistance (FMA) program and 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>.

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, if they are not privately owned), U.S. territories, local governments, and certain private nonprofit organizations. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Mitigation funding is generally only available for eligible disaster-damaged facilities. Must directly reduce the potential of future, similar damage to the facility. Must be cost-effective, technically feasible, and compliant with environmental and historic preservation laws, regulations, and Executive Orders. |
| Funding Available | Mitigation funding limits are based on benefit-cost-analysis or 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, territorial, Indian tribal, and local 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 banks of the Kankakee River. The 5.6-mile long riverbank is north of De Motte, IN. The damage in February 2018 was caused by spring flooding during an event 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.

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 | U.S. Army Corps of Engineers Detroit District |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 1-888-694-8313 |
| Contact Email | lrepao@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.

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 are defined as non-federal governments and nonprofit organizations. |
| Type of Assistance Provided | Eligible activities include the repair, removal or 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 FY 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 (or "WIIN") Act on December 16, 2016. This Act 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 rehabilitating eligible high hazard potential dams (33 USC §467f-2).

Case Study or Best Practice

None identified.

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-WEPEDirect.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 | Jason Allen, State Director |
| Contact Address | 3001 Coolidge Road Suite 200 East Lansing, MI 48823 |
| Contact Phone | 517-324-5190 |
| Contact Email | Unknown at this time. |

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 in 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 to 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 | U.S. Army Corps of Engineers Detroit District |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 1-888-694-8313 |
| Contact Email | lrepao@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>.

National Dam Safety Program (NDSP)

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|------------------------------------|--|
| Agency or Organization | Federal Emergency Management Agency (FEMA) |
| Resource Type | Grant, Technical |
| Primary Recovery Function | Infrastructure Systems |
| Type of Mitigation Action | Structure and Infrastructure Projects |
| Eligible Applicants | States |
| Type of Assistance Provided | Financial Assistance, Technical 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 | Not identified |
| Cost Sharing | Not identified |
| Website | https://www.fema.gov/national-dam-safety-program |
| 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

For 30 years, the federal government has used the NDSP to protect Americans from dam failure. The NDSP, a partnership of states, federal agencies, and other stakeholders, encourages and promotes the establishment and maintenance of effective federal and state dam safety programs to reduce the risks to human life, property, and the environment from dam-related hazards.

Case Study or Best Practice

Most recently the NDSP participated in recovery efforts resulting from the Lake Oronville Dam spillway failure in February 2017.

More information on the North Carolina Dam Risk Management Assessment Report can be found at: https://www.fema.gov/sites/default/files/2020-07/fema_national-dam-safety_year-in-review_2017.pdf.

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 to repair federal-aid highways that have been damaged by natural disasters or catastrophic failures, 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 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

In Title 23 USC Section 125, Congress authorized 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 ER funds for Fiscal Year 2020 is found here: <https://www.fhwa.dot.gov/specialfunding/er/200227distribution.cfm>

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 | https://www.lrb.usace.army.mil/Missions/Civil-Works/Overview/Continuing-Authorities-Program/ |
| Contact Name | U.S. Army Corps of Engineers Detroit District |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 1-888-694-8313 |
| Contact Email | No email provided |

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.

All projects in this program include a feasibility phase and an implementation phase. Planning activities, such as developing 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/.

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 | In FY20, NOAA awarded \$37 million to 46 projects under the Coastal Resilience Fund. |
| Cost Sharing | Federal funds awarded under this program must be matched by 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 the damages caused by coastal hazards such as erosion, coastal storms, and fluctuating water levels. For this project, they will develop guidance related 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>.

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 can apply via local governments for HMGP funding. Individuals may not apply directly for HMGP funding, but they can 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 or 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/hazard-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 toward the river a month later. By mid-September, the 18-foot slump was approximately 1 foot from the rear entrance of the home. The Schlaises, along with several other nearby homeowners, watched their yards, decks, and stairways slide toward 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, which was approximately 100 yards wide and extended 100 to 150 feet downslope 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 greater than 4.5 inches per day.

The ground failure was due in part to underlying 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 it is saturated. During spring and summer 2002, the area received a lot of rain, which added weight to the red clay. The water also acted as a lubricant, which facilitated downslope 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 deteriorating infrastructure. Water seepage into the basement also intensified, making this a high-risk situation.



Through the Wisconsin Emergency Management (WEM), the village of Oliver applied for and received funds from FEMA's 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, toward the cost of the project.

"This was a serious situation for not only the Schlauses, 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 that rolled through Oliver caused extensive flooding throughout the area and led to a federal disaster declaration. The three properties purchased by mitigation funds experienced further slumping, but their acquisition allowed the village and homeowners to avoid additional losses.

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

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 | Applicant eligibility and beneficiary eligibility both apply. Requirements are found here: https://beta.sam.gov/fal/d1e6b12d3857ecc7cbde3c811f629a82/view#compliance-requirements . |
| Type of Assistance Provided | Financial Assistance, Technical Assistance |
| Restrictions | Restrictions are described in 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

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 2021.

Case Study or Best Practice

Fiscal Year 2019

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

Rehabilitation and Inspection Program

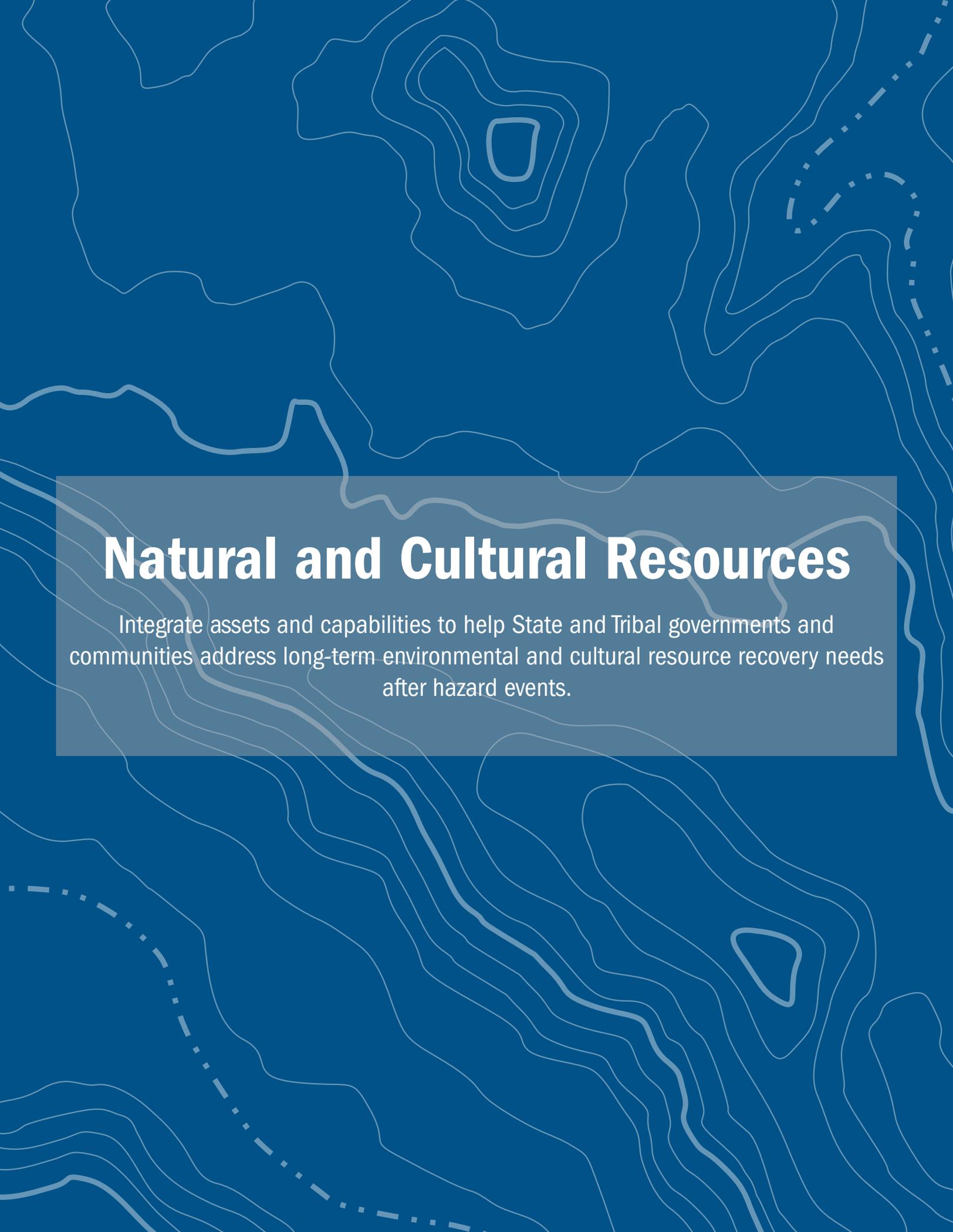
| | |
|------------------------------------|--|
| Agency or Organization | U.S. Army Corps of Engineers (USACE) |
| Resource Type | Technical |
| Primary Recovery Function | Infrastructure Systems |
| Type of Mitigation Action | Structure and Infrastructure Projects |
| Eligible Applicants | Public Sponsor |
| 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 Detroit District |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 1-888-694-8313 |
| Contact Email | lrepao@usace.army.mil |

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. Many things 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/>.

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 around a large, irregularly shaped area that is the focus of the text.

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 | Detroit Field Office |
| Contact Address | McNamara Federal Building 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 313-226-7900 |
| Contact Email | michael.l.polsinelli@hud.gov |

About the Resource

The SCRCP 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. SCRCP 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 stakeholders and residents in meaningful decision-making roles. The SCRCP 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>.

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 | No email provided |

About the Resource

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>.

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 \$100K of NSGO federal dollars annually for up to four years. |
| Cost Sharing | Sea Grant program provides 50% match of NSGO funds. Federal partner provides an equivalent amount to NSGO. |
| Website | https://seagrants.noaa.gov/liasons |
| 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 2-3 liaisons at up to \$100K 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/>.

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 of Fee are not eligible for the NRCS Wetland Mitigation Banking Program. |
| Website | https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmbill/?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

East Lansing, Michigan

The following case study is found here: <https://www.nrcs.usda.gov/wps/portal/nrcs/mi/newsroom/releases/1e29ea4e-839d-4997-9b1d-9d8ef5634382/>.

"The U.S. Department of Agriculture announced it will award \$800,000 for a wetland mitigation banking project in Michigan through the Wetland Mitigation Banking Program. This program helps conservation partners develop or establish mitigation banks to help agricultural producers maintain eligibility for USDA programs.

"These wetlands will provide agriculture producers an affordable mitigation option to remain in compliance for USDA Farm Bill programs while establishing banks that support wetland functions. Healthy wetlands help filter our water, sequester carbon, curb soil loss, and provide habitat for wildlife," said state Conservationist Garry Lee.

In Michigan, the funding will be used to expand the existing agricultural wetland banking operation administered by the Michigan Department of Natural Resources. Ten wetlands totaling 250 acres will be restored to provide additional credits to USDA producers. Michigan DNR will coordinate with other state agencies to develop and monitor the new bank sites. Wetland mitigation banks create credits through the restoration, creation, or enhancement of wetlands to compensate for impacts on wetlands at other locations."

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 onsite 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 a 90% cost-share. |
| Website | https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index |
| Contact Name | Joel Johnson, Executive Director |
| Contact Address | 3001 Coolidge Road Suite 350 East Lansing, MI 48823 |
| Contact Phone | 517-324-5110 |
| Contact Email | No email provided |

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 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>.

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 on 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/office-environmental-planning-and-historic-preservation |
| 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 repairs would not compromise the historic character of the RDA. 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.

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.McLanaghan@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 is available in FEMA Region 5, but it may not apply to many of the communities in the region.

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 salmon listed in the Endangered Species Act.

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 coho salmon, which are on the Endangered Species Act list.

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 nine upstream miles and 130 lake acres by multiple salmon species, providing benefits to both the salmon and Cook Inlet Beluga Whales, which rely on salmon as a food source.

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, using private conservation finance capital to invest in local mitigation projects.

Case Study or Best Practice

The increasing flow of capital means more, and increasingly larger-scale projects. EIP's first four projects are restoring approximately 8,000 acres of wetlands. Its four most recent 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>.

Wildlife Habitat Grant Program

| | |
|------------------------------------|---|
| Agency or Organization | Michigan Department of Natural Resources |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Any local, state, federal, or tribal units of government, profit or nonprofit groups, or individuals. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Minimum of \$15,000 |
| Funding Available | Maximum of \$1 million per request. |
| Cost Sharing | 10% share required. |
| Website | https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81746---,00.html |
| Contact Name | Clay Buchanan |
| Contact Address | P.O. Box 30425 Lansing, MI 48909 |
| Contact Phone | 517-614-0918 |
| Contact Email | buchananc1@michigan.gov |

About the Resource

The primary goal of this program is to enhance and improve the quality and quantity of game species habitat in support of specific goals from the Wildlife Division's strategic plan, "Guiding Principles and Strategies - The GPS," specifically GPS Goal 2 - Manage habitat for sustainable wildlife populations in a changing environment.

Case Study or Best Practice

This website lists FY 2014-2017 Grant winners at the bottom of the page. Each of the PDFs describes specific projects, the grantee, the county, and the amount awarded.

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 the 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>.

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 it 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 U.S. 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 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, stakeholder 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 (NC)

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

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

In Durango, CO, 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, NH, 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, UT, 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

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/resources/region/central-6976 |
| 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 Climate Adaptation Knowledge Exchange (CAKE) has an interactive map of case studies, located here: <https://www.cakex.org/interactive-map?title=&type=project>.

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>

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).

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 the adverse impacts of natural disasters. EWP does not require a disaster declaration by federal or state officials for program assistance to begin, but partial funding must ultimately be provided by the state legislature. If funding becomes available, all funded projects must demonstrate that 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 the economically depressed Carroll County. The county still has a critical need to use the EWP Program's help to 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.

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; 40-50 grants are 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 Street 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

Improving the Urban Tree Canopy in the Chicago Region through Increased Community Capacity (Illinois)

In 2019, the Morton Arboretum received a grant to provide education and outreach to under-resourced communities in the Chicago region using regional data to identify communities with the lowest canopy and highest percentage of impervious surfaces, flooding, heat islands, and air pollution. The project will plant 50 native trees in five communities, increasing habitat for migrating birds and other wildlife, will protect and preserve trees and green infrastructure in the communities, and will train community members to care for trees on their properties.

This case study is an excerpt from the NFWF publication: <https://www.nfwf.org/sites/default/files/fivestar/Documents/2019grantslate.pdf>.

Coastal and Estuarine Land Conservation Program (CELCP) Grants

| | |
|------------------------------------|--|
| Agency or Organization | Michigan Department of Environment, Great Lakes, and Energy (EGLE) |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | State of Michigan departments, local units of government, including cities, counties, villages and townships, Conservation Districts, state colleges and universities, tribal governments. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Project criteria and eligibility can be found here: https://www.michigan.gov/documents/deq/2017_CELCP_RFP_8.1.16_530968_7.pdf . |
| Funding Available | Maximum grant amount is \$1,500,000. There is no minimum grant requirement. |
| Cost Sharing | 1:1 local match required. |
| Website | https://www.michigan.gov/documents/deq/2017_CELCP_RFP_8.1.16_530968_7.pdf |
| Contact Name | Ronda Wuycheck |
| Contact Address | 525 West Allegan Street P.O. Box 30458 Lansing, MI 48909 |
| Contact Phone | 517-284-5040 |
| Contact Email | WUYCHECKR@michigan.gov |

About the Resource

The goals of the program are to protect high-quality, sensitive coastal areas; protect rare and threatened species and natural communities; maintain biodiversity and protect the coastal natural communities necessary to support diversity; maintain Michigan's cultural heritage; fulfill recreational needs; use previously created conservation and management plans to identify projects that are eligible for funding; and ensure lands acquired under this program are effectively managed.

Case Study or Best Practice

Bete Grise South Preserve

A stellar and vital wetland along Lake Superior, this easement protects 1,040 acres that have been recognized by the Michigan Natural Features Inventory as the single most important coastal plain marsh remaining in the Upper Great Lakes region. The Preserve is biologically rich, with more than 300 species of plants, nesting sandhill cranes and bald eagles, lady's slipper orchids, carnivorous plants including sundews, bladderworts, and pitcher plants, and a high diversity of grasses and sedges. The intact estuarine marsh provides important habitats for fish and amphibians. The Bete Grise South Preserve has over 7,500 feet of Lake Superior shoreline, much of which is beautiful sandy beach unrivaled in the Keweenaw.

Since this important first step was taken, additional land has been protected by partner organizations within this critical target area. An 840-acre parcel, Bete Grise North, was purchased by HKCD shortly after. Another 1,475 acres of high-quality wetlands, sand dune uplands, and 3,500 feet of shoreline frontage on Lac La Belle was purchased in 2010 with funding from the Great Lakes Restoration Initiative and Coastal and Estuarine Land Conservation Program (CELCP) and other funding partners. In 2013, 181 acres of land was purchased with CELCP support, adding nearly 1.7 miles of Lake Superior shoreline around Point Isabelle. Together, these acquisitions provide significant advances toward the locally driven initiative to protect the larger 8,000+ acre coastal wetland complex.

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>.

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), local nonprofit organization |
| 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 stakeholders 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

None identified.

MAEOE Grants

| | |
|------------------------------------|---|
| Agency or Organization | Michigan Alliance for Environmental and Outdoor Education (MAEOE) |
| Resource Type | Private - Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | MAEOE members, teachers |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Unknown at this time. |
| Funding Available | \$500 per applicant |
| Cost Sharing | Unknown at this time. |
| Website | https://www.maeoe.com/grants |
| Contact Name | MAEOE Education Committee Chair |
| Contact Address | P.O. Box 51235 Livonia, MI 48151 |
| Contact Phone | Unknown at this time. |
| Contact Email | admin@maeoe.com |

About the Resource

The MAEOE offers Environmental Education (EE) Grants. Our hope is to help broaden the horizon of students, teachers, and families to bring them closer to the natural world.

Case Study or Best Practice

None identified.

Southeast Michigan 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 government agencies, local governments, municipal governments, tribal governments, and educational institutions. To be competitive, applicant organizations must demonstrate capacity and experience commensurate with the scale or complexity of the project being proposed and the funding being requested. Ineligible applicants include federal government agencies, unincorporated individuals, and for-profit businesses. While these entities may not be the primary recipient of grant funds, they may be partners or sub-contractors. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Unknown at this time. |
| Funding Available | \$1.2 million |
| Cost Sharing | Unknown at this time. |
| Website | https://www.nfwf.org/semichigan/Pages/home.aspx |
| Contact Name | Aislinn Gauchay |
| Contact Address | 8011 34th Ave South Suite 242 Bloomington, MN 55425 |
| Contact Phone | 612-564-7284 |
| Contact Email | Aislinn.Gauchay@nfwf.org |

About the Resource

The Southeast Michigan Resilience Fund is a public-private partnership that increases the resilience of communities and natural resources in Southeast Michigan by reducing the impact of stormwater, improving water quality, enhancing habitat, and increasing the accessibility and usability of public green space and natural areas. These actions help communities prepare for intensifying environmental stressors related to development, climate, invasive species, nonpoint source pollution and other factors.

Case Study or Best Practice

None identified.

Planning for Resilient Coastal Communities Service Grant

| | |
|------------------------------------|--|
| Agency or Organization | Resilient Michigan |
| Resource Type | Private - Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Information on the 2021 grant is found here: http://www.resilientmichigan.org/downloads/coastal_resilience_rfp_liaa_2021.pdf . |
| 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.resilientmichigan.org/ |
| Contact Name | Harry Burkholder |
| Contact Address | 324 Munson Avenue Traverse City, MI 49686 |
| Contact Phone | 231-929-3696 |
| Contact Email | info@liaa.org |

About the Resource

With generous support from Michigan's Coastal Zone Management (CZM) Program, the nonprofit Land Information Access Association (LIAA) is collaborating with the University of Michigan, Michigan Technological University, and CZM to help communities develop master plan amendments that result in greater coastal and community-wide resilience. These planning efforts focus on ways to build a better and more reliable local economy, manage social and environmental changes, respond to a changing climate with more severe storms, and respond and adapt to dynamic changes in Great Lakes water levels.

Case Study or Best Practice

None identified.

The Nature Conservancy in Michigan

| | |
|------------------------------------|---|
| Agency or Organization | The Nature Conservancy |
| 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, Financial Assistance |
| Restrictions | Unknown at this time. |
| Funding Available | Unknown at this time. |
| Cost Sharing | Unknown at this time. |
| Website | https://www.nature.org/en-us/about-us/where-we-work/united-states/michigan/ |
| Contact Name | Helen Taylor, state Director |
| Contact Address | 101 E. Cesar E. Chavez Avenue Lansing, MI 48906 |
| Contact Phone | 517-316-0300 |
| Contact Email | michigan@tnc.org |

About the Resource

For nearly 40 years, The Nature Conservancy has worked in Michigan to protect more than 380,000 acres of land, hundreds of lakes, and miles of rivers. But as demands on land and water continue to increase, we must do more, faster. We are scaling up our efforts to act on a strategic vision for protection. This vision not only includes policy, but also includes testing innovative ways to finance conservation and connect people to nature.

Case Study or Best Practice

The 2018 Conservation Report for Michigan is found here: https://www.nature.org/content/dam/tnc/nature/en/documents/2018_MI_Cons_Report_web_compressed.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 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.

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 stakeholders (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

Calvin College, Grand Rapids Area—Grand Rapids Metropolitan Area, Michigan - Year: 2013-2014

Calvin College will develop a regional “rainscaping” initiative to design green infrastructure (GI) and low-impact development (LID) plans and develop a “green” workforce by training urban youth in the installation and maintenance of GI and other LID projects. This effort will promote GI awareness and implementation among homeowners, landscapers, and contractors. A “water currency” program will be developed as an incentive for potential participants to install GI designs. Green workforce development will focus on one upstream community (Rogue River Watershed) and one downstream community (Plaster Creek Watershed). Award Amount: \$60,000.

Floodplain Wetlands 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 cover 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/Assets/USDA-FSA-Public/usdfiles/FactSheets/archived-fact-sheets/floodplain_wetlands_initiative_jul2015.pdf |
| Contact Name | Joel Johnson, Executive Director |
| Contact Address | 3001 Coolidge Road Suite 350 East Lansing, MI 48823 |
| Contact Phone | 517-324-5110 |
| Contact Email | No email provided |

About the Resource

The Floodplain Wetlands Initiative is an innovative approach to flood control and floodplain management. The Conservation Reserve Program (CRP) 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 CRP to increase wildlife populations in the state and conserve millions of acres. Habitat created by farmers enrolling private land in the CRP has supported dramatically increased wildlife populations in Minnesota.

More information on Minnesota's efforts can be found at: <http://bwsr.state.mn.us/conservation-reserve-program>.

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, U.S. Fish and Wildlife Service, Wildlife and Sport Fish Restoration Program |
| Contact Address | 5600 American Boulevard West Suite 990 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

Abbaye Peninsula Wetlands Conservation

The Michigan Department of Natural Resources, in partnership with Keweenaw Land Trust, The Nature Conservancy and others, is awarded \$925,000 to protect 193 acres of diverse and intact coastal wetland habitats on the Abbaye Peninsula and the adjoining Keweenaw and Huron Bays of Lake Superior in Baraga County, Michigan. The project will benefit migratory birds and waterfowl, nearshore aquatic habitats, native plants, fish and wildlife and create areas for public recreation.

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 | Garry Lee, State Conservationist |
| Contact Address | 3001 Coolidge Road Suite 301 East Lansing, MI 48823 |
| Contact Phone | 517-324-5277 |
| Contact Email | garry.lee@mi.usda.gov |

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 establishing a wildlife food plot, 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 an 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.

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 and 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. · 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 forests 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>.

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>.

Fisheries Habitat Grant Program

| | |
|------------------------------------|--|
| Agency or Organization | Michigan Department of Natural Resources |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Local, state, federal, or tribal units of government, academic institutions, or nonprofit groups. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Competitive projects will address causes of habitat degradation as opposed to symptoms, provide long-lasting benefits, address needs on the Fisheries Division priority habitat projects list, be cost-effective, use appropriate methods, monitor project outcomes, address health and human safety for dam management, and/or address research and assessment needs to inform future habitat conservation. |
| Funding Available | Minimum grant request amount: \$25,000. Maximum grant request amount: Amount of funds available in the theme(s) for which the application is eligible (up to \$1.825 M). |
| Cost Sharing | Minimum match of 10% is required |
| Website | michigan.gov/dnr/0,4570,7-350-79134_81684_81685_92503---,00.html |
| Contact Name | Chip Kosloski |
| Contact Address | P.O. Box 30452 Lansing, MI 48909 |
| Contact Phone | 517-284-5965 |
| Contact Email | kosloskic3@michigan.gov |

About the Resource

The Fisheries Habitat Grant supports a variety of activities to benefit fisheries, aquatic resources, and the public, including fish habitat conservation, dam removal and repair, and access to recreation.

Case Study or Best Practice

A list of priority habitat conservation projects can be found here: https://www.michigan.gov/documents/dnr/DNR-Fisheries-PriorityHabitatConservationProjects_661597_7.pdf.

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 the 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 the 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 because it reduced water loss and saved energy. 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 replacing 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.

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 for 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—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 U.S. Fish and Wildlife Service and the 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, the potential alternatives were overlaid 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 input of the users and resource agencies and the expertise of the coastal engineers, it was determined that the best solution for the state of Hawaii was to terminate the proposed breakwater expansion and instead focus on facility improvements to 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>.

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 underused 3-acre property into an improved community recreation area. NPS staff convened a workshop that developed 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>

State Revolving Fund

| | |
|------------------------------------|---|
| Agency or Organization | Michigan Department of Environment, Great Lakes, and Energy (EGLE) |
| Resource Type | Loan |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Any city, village, township, county, or related authority. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | None identified |
| Funding Available | Dependent on federal grant amount. |
| Cost Sharing | No match required. |
| Website | https://www.michigan.gov/egle/0,9429,7-135-3307_3515_4143---,00.html |
| Contact Name | Karol Patton |
| Contact Address | 525 West Allegan Street P.O. Box 48909 Lansing, MI 48909 |
| Contact Phone | 517-284-5433 |
| Contact Email | PattonK@michigan.gov |

About the Resource

The State Revolving Fund (SRF) provides low-interest loans for water pollution control projects.

Case Study or Best Practice

This website lists some fund allocations in Spring 2018 for the DEQ State Revolving Fund:

https://www.michigan.gov/documents/deq/deq-dwmad-newsletter-spring2018_626368_7.pdf.

The website for this newsletter can be found at: https://www.michigan.gov/deq/0,4561,7-135-3307_3515_4143-18646--,00.html.

For 2021, see: https://www.michigan.gov/documents/egle/egle-fd-wifs-CWSRF-IUP-Final-2021_704372_7.pdf.

Coastal Management Program (MCMP)

| | |
|------------------------------------|---|
| Agency or Organization | Michigan Department of Environment, Great Lakes, and Energy (EGLE) |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Eligible applicants include coastal communities (e.g., local units of government: cities, counties, villages, and townships), regional planning agencies, educational institutions, tribal governments, and not-for-profits 501(c) organizations within the approved programmatic boundary. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Information on restrictions can be found here: https://www.michigan.gov/documents/egle/wrd-Coastal-Management-Program-Grantee-Manual-2021_720209_7.pdf . |
| Funding Available | Planning projects can be no less than \$10,000 and no greater than \$100,000. Site-specific, low-cost construction projects can be no less than \$10,000 and no greater than \$200,000. |
| Cost Sharing | All applicants must demonstrate the ability to provide a one-to-one nonfederal match and provide documentation of committed and/or source of match funds. Match may be in the form of cash, in-kind services, or donations. |
| Website | https://www.michigan.gov/egle/0,9429,7-135-3313_3677_3696---,00.html |
| Contact Name | Ronda Wuycheck |
| Contact Address | 525 West Allegan Street P.O. Box 30458 Lansing, MI 48909 |
| Contact Phone | 517-284-5040 |
| Contact Email | WUYCHECKR@michigan.gov |

About the Resource

The MCMP is seeking projects that protect community character and revitalize ports and harbors; plan for coastal growth and change in our coastal communities to strengthen economies and minimize risk from coastal hazards; protect and restore healthy coastal ecosystems for the public use and enjoyment; devise solutions for the protection of coastal water quality; and create and enhance public access.

Case Study or Best Practice

Information on 2019 grants awarded can be found here: https://www.michigan.gov/documents/egle/wrd-cm-2019-coastal-grants_662115_7.pdf.

Source Water Protection Grants

| | |
|------------------------------------|--|
| Agency or Organization | Michigan Department of Environment, Great Lakes, and Energy (EGLE) |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Natural Systems Protection |
| Eligible Applicants | Public water systems |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Consult the Criteria and Eligibility guidelines found here: https://www.michigan.gov/deq/0,4561,7-135-3307_3515-314515--,00.html . |
| Funding Available | Not identified |
| Cost Sharing | 50% local match required. |
| Website | https://www.michigan.gov/egle/0,9429,7-135-3307_3515-314515--,00.html |
| Contact Name | Jason Berndt |
| Contact Address | 525 West Allegan Street P.O. Box 48909 Lansing, MI 48909 |
| Contact Phone | 517-241-4796 |
| Contact Email | berndtj1@michigan.gov |

About the Resource

Its purpose is to provide matching funds to public water supply systems for the development and implementation of a source water protection program to help prevent drinking water sources from becoming contaminated. These funds can be used to develop a Surface Water Intake Protection Program for systems that use surface water or to develop a Wellhead Protection Program for systems that use groundwater sources.

Case Study or Best Practice

City of Grand Haven, Michigan, North Ottawa Water Facilities (April 2010)

A program was implemented to protect the long-term viability of Grand Haven's drinking water supply by reducing the potential risk of surface and subsurface contamination affecting the Intake Protection Areas (SWIPP Areas). Implementation of this SWIPP will help raise public awareness regarding surface water protection and will assist the city of Grand Haven, under intergovernmental cooperation with the city of Ferrysburg, village of Spring Lake, Grand Haven Charter Township, Spring Lake Township, and Ottawa County, in giving future consideration for zoning and land use activities within the SWIPP Areas.

More information on this case study can be found at: https://www.michigan.gov/deq/0,4561,7-135-3313_3675_3695-128356--,00.html.

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 was planted to an agricultural commodity in 4 of the previous 6 crop years, 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 | Joel Johnson, Executive Director |
| Contact Address | 3001 Coolidge Road Suite 350 East Lansing, MI 48823 |
| Contact Phone | 517-324-5110 |
| Contact Email | No email provided |

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 in 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 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.

Clean Water State Revolving Fund (CWSRF)

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| 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. Supplemental Allotments offered for Flint, Michigan, 2017-2021. More information on historically 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 develops 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. The county soil and water district's draft plan is reviewed by Ohio EPA and by a formal public review process. 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>.

Dam Management Grant Program

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| Agency or Organization | Michigan Department of Natural Resources |
| Resource Type | Grant |
| Primary Recovery Function | Natural and Cultural Resources |
| Type of Mitigation Action | Structure and Infrastructure Projects |
| Eligible Applicants | Any local, state, federal, or tribal units of government, nonprofit groups or individual. |
| Type of Assistance Provided | Financial Assistance |
| Restrictions | Consult the criteria and eligibility found here: https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81745---,00.html . |
| Funding Available | Maximum of \$350,000 per request. |
| Cost Sharing | 10% local share required. |
| Website | https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81745---,00.html |
| Contact Name | Chip Kosloski |
| Contact Address | P.O. Box 30452 Lansing, MI 48909 |
| Contact Phone | 517-284-5965 |
| Contact Email | kosloskic3@michigan.gov |

About the Resource

The objective is to provide funding and technical assistance to conservation partners to manage dam removal, repair, and major maintenance projects that will enhance aquatic resources and fishing opportunities, reduce infrastructure costs and improve public safety in Michigan.

Note: This grant is no longer active or soliciting applications. Potential applicants can find similar funding opportunities through the new Fisheries Habitat Grant.

Case Study or Best Practice

Maple River Dam Removal Project (\$125,000), Emmet County, Michigan

Funding to remove the Lake Kathleen Dam resulted in the improving one of the most severely degraded and fragmented sites in the Maple River Watershed. This project is part of a large-scale effort to completely span the Maple River with appropriately sized stream crossings.

Black Creek Dam Removal Project (\$65,000), Gladwin County, Michigan

Funds to remove an earthen dam under a county road in Gladwin County. The dam was not constructed properly and is failing. Project included removal of the dam, culvert, and spillway.

More information on the DMGP can be found at https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81745---,00.html and on this specific PDF from FY 2017. More information on DMGP recipients can be found at: https://www.michigan.gov/documents/dnr/2017_Dam_Management_Grant_Recipients_631034_7.pdf.

Aquatic Ecosystem Restoration

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|------------------------------------|---|
| 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 | U.S. Army Corps of Engineers Detroit District |
| Contact Address | 477 Michigan Avenue Detroit, MI 48226 |
| Contact Phone | 1-888-694-8313 |
| Contact Email | lrepao@usace.army.mil |

About the Resource

The USACE, with approximately 30,000 civilian and military personnel, is 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. It 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 restoring wetland, riparian, and aquatic systems. Although the USACE sometimes becomes involved in broader restoration projects, USACE policy is that there must 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 systemwide watershed approaches to problem solving and management for smaller ecosystem restoration projects.

Case Study or Best Practice

Galveston, Texas

The USACE Galveston District has 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. These include 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

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|------------------------------------|--|
| 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 available by county: https://offices.sc.egov.usda.gov/locator/app?state=mi&agency=fsa . |
| 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>.



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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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MAY 2021