# Federal Flood Risk Management Programs Website

# Program Summaries

## Purpose

This document identifies, categorizes, and summarizes federal government programs for flood risk management. The contents will be used to develop a website focused on navigating federal agency programs that is updated and maintained under the auspices of the Federal Interagency Floodplain Management Task Force. The purpose of this website is to create a common organizational aide (a portal) to be used by key audiences to be able to quickly determine what federal programs might be available to assist with specific flood risk management / floodplain management needs. It is not intended to take the place of agency websites, but point to them for further information. It would clearly and concisely communicate the roles and programs of federal agencies in flood risk management and open the doors to better coordination and partnering, and will allow individuals and businesses to make risk-informed decisions on flood risk management investments.

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**Program Summaries**

## U.S. Department of Transportation (DOT) Programs

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| --- | --- |
| Program Name | Emergency Relief Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | Assessment Yes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: TBD: X |
| Summary | *Overview:* Administered by the Federal Highway Administration, the Emergency Relief (ER) program supplements resources committed by states, counties, and cities to help pay for exceptional expenses resulting from natural disasters. Damage can have occurred over a wide area or be a catastrophic failure. Only state, county and city roads are eligible for ER cost-sharing and the estimated cost for repairs must require at least $700,000 in ER support.*Assessment:* N/A*Preparedness:* N/A*Recovery:*  The ER program is intended for emergency and permanent repairs to eligible Federal-aid highways after a natural disaster*Mitigation:* May be required or provide support reconstruct roads to be less vulnerable to flooding. |
| Links | <http://www.fhwa.dot.gov/specialfunding/er/guide.pdf>  |
| Additional Notes |  |

|  |  |
| --- | --- |
| Program Name | Repair Grants *(States)* |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | Assessment Yes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The FHWA provides grants to state governments for the repair of highways, bridges and culverts damaged in natural disasters (regardless of disaster declaration). The FHWA can provide up to $100 million in emergency relief funding to any state if a disaster is deemed eligible for funding by an FHWA Division Administrator.*Assessment:* N/A*Preparedness:* N/A*Recovery:* The grants are available for emergency relief funding after a natural disaster to repair highways, bridges and culverts.*Mitigation:* N/A |
| Links | N/A |
| Additional Notes | State support program |

## U.S. Environmental Protection Agency (EPA) Programs

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| --- | --- |
| Program Name | Low Impact Development Best Management Principles |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: XNo:TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: TBD:X | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Through the Low Impact Development (LID) Best Management Principles (BMP) program, the EPA offers fact sheets, reports and manuals to guide the implementation of LID principles and practices in land development projects. These resources are available to the public on the EPA website.*Assessment:* The program offers a suite of materials that can be used by local governments, businesses, and individuals in making land use decisions. *Preparedness:* N/A*Recovery:*  Guidance materials can be used to inform recovery efforts, but are not specifically focused on supporting disaster recovery and do not provide funding for implementation.*Mitigation:* Integration of LID into development projects can reduce costs of flood-control projects, and can enhance the flood hazard reduction of relevant projects. |
| Links | <http://water.epa.gov/polwaste/green/>  |
| Additional Notes | Does not provide direct funds/grants  |

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| --- | --- |
| Program Name | State Revolving Fund (SRF) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: TBD: X | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The State Revolving Fund (SRF) is a financing mechanism for water quality projects. Funds are operated by states with start-up funding from federal grants and state matching money. The SRF does not have any provisions or conditions on the use of funds in floodplains. The SRF offers low interest rates and flexible terms partnerships with other funding services.*Assessment:* N/A*Preparedness:* N/A*Recovery:* Unclear if the funding could be used to repair damaged estuaries after storms or water quality projects necessitated by storm damage.*Mitigation:* The CWSRF has provided nearly $4.2 billion in funding for nonpoint source projects and estuary management projects. |
| Links | <http://water.epa.gov/grants_funding/cwsrf/cwsrf_index.cfm> Fact Sheet: <http://water.epa.gov/infrastructure/watersecurity/funding/fedfunds/upload/dwsrfprofile.pdf>  |
| Additional Notes |  |

## Federal Emergency Management Agency (FEMA) Programs

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| --- | --- |
| Program Name | Community Rating System (CRS) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD:  |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The National Flood Insurance Program Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed minimum NFIP requirements. Any community in full compliance with NFIP’s minimum floodplain management requirements may apply. Communities participating in CRS can complete local, creditable activities to increase preparedness and reduce flood damages. As communities complete CRS activities, the community becomes eligible for NFIP insurance premium reductions of up to 45%. The CRS provides information and guidance in completing these activities with publications and webinars.Assessment: Communities can complete CRS activities in flood mapping.Preparedness: Communities can complete CRS activities in flood preparedness and public information.Recovery: N/A Mitigation: Communities can also complete Flood Damage Reduction activities for CRS credits. |
| Links | [http://www.fema.gov/national-flood-insurance-program-community-rating-system#](http://www.fema.gov/national-flood-insurance-program-community-rating-system)  |
| Additional Notes |  |

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| --- | --- |
| Program Name | Flood Mitigation Assistance Grant Program (FMA) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | Assessment / PlanningYes: No: XTBD: | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD:  | MitigationYes: XNo: TBD: |
| Summary | *Overview:* FMA provides funding to states, tribes and communities for measures that reduce or eliminate long term risk of flood damage to structures insured under NFIP. FMA funding is available through NFIP for flood hazard mitigation projects, plan development and management costs. Homeowners or local businesses must apply for FMA funds through local governments. Assessment: N/APreparedness: N/ARecovery: N/AMitigation: FMA’s primary goal is to reduce or eliminate long-term risk of flood damage to structures under the NFIP Projects can include property acquisition of buildings in high-risk areas, elevation of structures or the construction a safe room in residences. |
| Links |   |
| Additional Notes |  |

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| --- | --- |
| Program Name | HAZUS Model |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD:  |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: XNo: TBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Hazus is a nationally applicable, standardized methodology for estimating potential losses from disasters including floods and hurricanes. The methodology relies on models to estimate physical, economic and social impacts of disasters and provides users with a graphic of high-risk locations and visualization of where populations, geographic assets and resources are related to high risk areas. *Assessment*: Mapping of areas of high risk provides an assessment for the mitigation planning process.*Preparedness*: By identifying areas of greater risk, communities can be better informed about where vulnerable populations live and where damage can be anticipated.*Recovery*: Government planners, GIS specialists and emergency planners use Hazus to determine losses.*Mitigation*: Hazus can be used after a disaster to determine the most beneficial mitigation approaches to minimize existing and future damage. |
| Links | <https://www.fema.gov/hazus>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | Individuals and Households Program (IHP) |
| Applicability  | Local GovernmentsYes: No: X TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes:No: XTBD: | RecoveryYes: X No:TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The Individuals and Households Program (IHP) provides financial help or direct services including Housing Assistance (Temporary Housing, Repair, Replacement, and Semi‐Permanent or Permanent Housing Construction) and Other Needs Assistance (personal property and other items) to those who have necessary expenses and serious needs if they are unable to meet the needs through other means. Up to an IHP maximum (established each year) is available, although some forms of IHP assistance have limits. Flood insurance may be required for some forms of assistance. Assessment: N/APreparedness: N/A Recovery: Housing assistance provides funding for temporary housing and for homeowners to repair damage from the disaster that is not covered by insurance. The Assistance can also be used to replace a disaster-damaged home (if this can be done with limited funds). Funding for semi-permanent or permanent housing construction is also available in specific locations where no other housing assistance is available. Other needs assistance can provide grants for uninsured disaster-related necessary expenses and serious needs. Mitigation: N/A |
| Links | <http://www.fema.gov/recovery-directorate/assistance-individuals-and-households-fact-sheet>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | National Flood Insurance Program (NFIP) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: XNo:TBD: | MitigationYes: No: TBD: X  |
| Summary | *Overview:* The National Flood Insurance Program is aimed at reducing the impact of flooding on private and public structures. This is achieved by providing affordable insurance for property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Homeowners are only eligible for National Flood Insurance if communities are participating in the NFIP. *Assessment*: To identify a community’s risk, FEMA conducts Flood Insurance Studies drawing on data for river flow, storm tides, hydrologic/hydraulic analyses and rainfall and topographic surveys. The Flood Insurance Rate Maps are then used to convey risk and determine insurance rates. *Preparedness:* The NFIP program and Floodsmart.gov provide resources for homeowners in areas of high flood-risk in how to prepare for flood risks and understand flood maps.*Recovery*: After any damage caused by flooding, NFIP insurance holders may file an insurance claim for damages to the building property, and personal contents. *Mitigation*: The NFIP offers resources for communities, businesses, and individuals to mitigate the impacts of potential future flooding.  |
| Links |  [www.Floodsmart.gov](http://www.Floodsmart.gov)  |
| Additional Notes |  |

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| Program Name | National Hurricane Program (NHP) |
| Applicability  | Local GovernmentsYes: X No: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: X TBD:  |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The NHP conducts assessments and provides tools and technical assistance to assist State and local agencies in developing hurricane evacuation plans. *Assessment*: The NHP studies assess potential hazards, existing roads and transportation systems the populations that might be affected and shelters. Officials then determine where individuals are most likely to go when evacuating.*Preparedness*: FEMA, State and local agencies conduct hurricane evacuation studies to guide the decisions that protect the public when a hurricane threatens an area. These studies determine probable effects of a hurricane, predicting public response to the threat and advisories and identify shelters to ultimately form the basis of evacuation plans.*Recovery*: N/A*Mitigation*: N/A |
| Links |  <http://www.fema.gov/pdf/plan/prevent/nhp/nhp_faqs.pdf>  |
| Additional Notes |  |

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| Program Name | Pre-Disaster Mitigation Grants (PDM) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* PDM is designed to assist states, territories, federally-recognized tribes and local communities in implementing a sustained pre-disaster natural hazard mitigation program. The program awards planning and project grants and provides opportunities for raising public awareness about reducing future losses before disasters. Funding is appropriated by Congress and varies annually. Applications must be submitted by state emergency management agencies designated by the state. Sub-applicants (local governments and state institutions) then apply to the applicant for assistance.*Assessment:*  N/A*Preparedness:* The program awards planning as well as project grants and aims to support opportunities for raising public awareness about reducing future losses.*Recovery:* N/A*Mitigation:* Eligible activities include voluntary acquisition of at-risk property for conversion to open space, elevation of existing structures, dry flood proofing of historic residential structures and non-residential structures, vegetation management for natural dune restoration, storm water management projects and localized flood control projects. |
| Links |  <http://www.fema.gov/pre-disaster-mitigation-grant-program>  |
| Additional Notes |  |

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| Program Name | Public Assistance Grants |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes:No: XTBD: | RecoveryYes: XNo:TBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The Public Assistance Grant Program provides assistance to States, Tribal and local governments and to types of private non-profit organizations so communities can quickly respond and recover in major disasters or Presidentially declared emergencies. The federal share of assistance is at least 75% of the eligible cost for emergency measures and permanent restoration. *Assessment*: N/A*Preparedness*: N/A*Recovery*: Through the PA program, FEMA provides supplemental disaster grant assistance for debris removal, emergency protective measures, repair, replacement and restoration of disaster-damaged, publicly owned facilities and facilities of private non-profit organizations. *Mitigation*: The PA Program also encourages protection of damaged facilities by providing assistance for hazard mitigation measures during the recovery process.  |
| Links |  <http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit>  |
| Additional Notes |  |

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| Program Name | Repetitive Flood Claims (Severe Repetitive Loss) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes:No: XTBD: | RecoveryYes: No:TBD: X | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The Repetitive Flood Claims provide funding to reduce or eliminate long-term risk of flood damage to structures insured under NFIP that have had one or more claim payments for flood damages. Only structures in a community participating in the NFIP that cannot meet the requirements of the Flood Mitigation Assistance program qualify. Properties are classified as Severe Repetitive Loss Properties if they are insured under NFIP and have incurred flood losses resulting in four or more flood insurance claims each exceeding $5,000, with at least two of those payments occurring in a 10-year period, and with the total claims paid exceeding $20,000; or two or more flood insurance claims payments that together exceeded the value of the property. To be eligible a state or tribal standard or enhanced hazard mitigation plan is required. *Assessment*: N/A*Preparedness*: N/A*Recovery*: TBD*Mitigation*: RFC funds may be used to mitigate structures insured under NFIP. Property owners who are not eligible for Flood Mitigation Assistance are eligible for RFC, an alternative funding source to mitigate future losses to their property. SRL acquires flood prone structures for demolition or relocation and restricts the vacant land where the structure stood for open space uses in perpetuity.  |
| Links |  <http://www.fema.gov/repetitive-flood-claims-grant-program-fact-sheet>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | Risk Mapping, Assessment and Planning (Risk MAP) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD:  |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Risk MAP provides high quality flood maps and information and tools to better assess and mitigate risk from flooding in flood-prone communities and resources to help communities communicate with residents and businesses about that risk. Communities may submit mapping need requests through FEMA’s Coordinated Needs Management Strategy tool. Communities must first have a FIRM on which the Risk MAP process builds.*Assessment:* Risk MAP provides high quality flood maps and information and tools to better assess the risk from flooding.*Preparedness*: The program’s objective is to deliver quality data and increase public awareness beyond the products and services of the Flood Insurance Rate Map (FIRM).*Recovery*: N/A*Mitigation*: Risk MAP provides planning and outreach support to communities to help them rake action to reduce flood risk. |
| Links | Program Page: <http://www.fema.gov/risk-mapping-assessment-and-planning-risk-map> Fact Sheet: <http://www.fema.gov/media-library-data/20130726-1731-25045-5094/what_is_risk_map.pdf> Information for Community Officials: <http://www.fema.gov/risk-map-program-information-community-officials> Information for Homeowners: <http://www.fema.gov/risk-map-program-information-homeowners-renters-and-business-owners>  |
| Additional Notes |  |

## U.S. Fish and Wildlife Service (FWS) Programs

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| --- | --- |
| Program Name | Coastal Barrier Resources Act Enforcement |
| Applicability  | Local GovernmentsYes: XNo: TBD: does not provide funding/resources  | Businesses/FarmsYes: No: X TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The CBRA seeks to preserve coastal habitats by mapping areas where federal funding cannot contribute to development in hurricane-prone, biologically sensitive areas. *Assessment:* Mapping the boundaries of the CBRS system provides local communities with maps of areas that are highly flood prone. The 5-year review requirement considers changes to the CBRS through erosion and accretion giving local governments updated assessments of this flood risk.*Preparedness:* N/A*Recovery:* N/A*Mitigation:* By making areas in CBRA ineligible for federal expenditures and financial assistance, the program encourages conservation of undeveloped coastal barriers that can protect aquatic habitats and shorelines from wave, tidal and wind energies while discouraging construction in hurricane prone areas. |
| Links | Coastal Barrier Resources Act: <http://www.fws.gov/ecological-services/habitat-conservation/cbra/Act/index.html>Overview: <http://www.fws.gov/ecological-services/habitat-conservation/coastal.html>  |
| Additional Notes |  |

## U.S. Department of Housing and Urban Development (HUD) Programs

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| --- | --- |
| Program Name | Community Development Block Grant Disaster Recovery Program (CDBG-DR) |
| Applicability  | Local GovernmentsYes: X No: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: X No: TBD: | MitigationYes: X No: TBD: |
| Summary | *Overview:* HUD provides flexible grants to help cities, counties, and States recover from Presidentially declared disasters. Congress may appropriate additional funding for the Community Development Block Grant (CDBG) Program as Disaster Recovery grants. CDBG-DR assistance may fund a broad range of recovery activities listed on the [program page](https://www.hudexchange.info/cdbg-dr/cdbg-dr-eligibility-requirements) and often supplement other federal disaster programs. Communities must have significant unmet recovery needs and the capacity to carry out a disaster recovery program. Eligible activities must meet at least one of three program national objectives: benefit persons of low and moderate income, aid in the prevention or elimination of slums or blight, or meet other urgent community development needs.*Assessment:* N/A*Preparedness:* N/A*Recovery:* The primary purpose of CDBG-DR is to help cities, counties and states recover from Presidentially declared disasters.*Mitigation:* Additional CDBG-DR funding was made available through the National Disaster Resilience Competition which supports local resilience projects while encouraging communities to adopt policy changes and activities to plan for impacts of extreme weather.  |
| Links | Program Page:<https://www.hudexchange.info/cdbg-dr/cdbg-dr-eligibility-requirements> National Disaster Resilience Competition: <https://www.hudexchange.info/programs/cdbg-dr/resilient-recovery/>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | Mortgage Insurance for Disaster Victims |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: No: TBD: X maybe farmsteads?  | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* Any individuals whose home has been damaged or destroyed in an area where a Presidential declaration of disaster may apply to the Mortgage Assistance program. After the disaster declaration, the Federal Housing Administration activates a mortgage letter making a number of insured loan programs available for disaster victims.*Assessment: N/A**Preparedness: N/A**Recovery:* Through Section 203(h), the Federal Government helps victims in Presidentially designated disaster areas recover by making it easier for them to get mortgages and become homeowners or re-establish themselves as homeowners.*Mitigation: N/A* |
| Links | HUD Disaster Resources: <http://portal.hud.gov/hudportal/HUD?src=/info/disasterresources> Program Page: <http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/ins/203h-dft> |
| Additional Notes |  |

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| --- | --- |
| Program Name | Rental Assistance |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: No: TBD: X | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: X No: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The Disaster Housing Assistance program is a partnership between HUD and FEMA and operated through HUD’s Public Housing Authorities that provides housing vouchers to displaced residents (both in HUD-assisted units or are previously unassisted by HUD) following a presidentially declared natural disaster. *Assessment:* N/A*Preparedness:* N/A*Recovery:* The program was set up after Hurricanes Katrina and Rita to provide long term rental assistance to disaster victims.*Mitigation:* N/A |
| Links | Program Page:<http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/publications/dhap>DHAP-Sandy: <http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_10954.pdf>  |
| Additional Notes |  |

## National Oceanic and Atmospheric (NOAA) and National Weather Service (NWS) Programs

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| --- | --- |
| Program Name | Coastal Inundation Modeling, Forecasting and Prediction |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD:  |
| Risk Management Phase | AssessmentYes: No: TBD: X | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* NOAA’s Coastal Inundation Modeling, Forecasting and Prediction program provides communities with analysis of flood and storm surge hazards. Modeling systems and GIS tools create more refined and accurate data for use in disaster planning.*Assessment*: The model could be used by local communities or in continued research to identify more vulnerable areas, and probably is used this way though it isn’t an objective in the program description. *Preparedness*: Within the program, NOAA hosts a Sea Lake and Overland Surges from Hurricanes (SLOSH) Model Viewer, which aids in evacuation planning. Models also contribute to a prediction of storm surge heights, waves, wind and a measure of the probability of where storm surge will happen. *Recovery*: N/A*Mitigation*: N/A |
| Links | Program Page: http://www.stormsurge.noaa.gov/overview.htmlDescription of Models: <http://www.stormsurge.noaa.gov/models_obs_modeling.html>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | National Coastal Zone Management |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | Assessment / PlanningYes: No: TBD: X | PreparednessYes: No: XTBD:  | RecoveryYes: No: TBD: X | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The resources available vary from state to state, but the National Coastal Zone Management Program is a voluntary partnership between the federal government and coastal and Great Lakes states authorized by the Coastal Zone Management Act. The program includes a coastal zone enhancement program providing incentives to states to enhance programs that could reduce flood hazard including wetlands, coastal hazards, special are management planning and energy and government facility siting. *Assessment:* In the Coastal Zone Enhancement Program’s requirement to identify priority needs, this might include assessment of flood risk.*Preparedness:* N/A*Recovery:* In the enhancement and organization of programs, responding to recent flood damage might be considered, though if the review of programs is only every 5 years, this might not be relevant.*Mitigation:* Under the Coastal Zone Enhancement Program states and territories review programs to identify priority needs and opportunities in the nine enhancement areas listed on the [program page](http://coast.noaa.gov/czm/enhancement/).  |
| Links | <http://coast.noaa.gov/czm/about/>  |
| Additional Notes |  |

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| Program Name | NWS Advanced Hydrological Prediction Service (AHPS) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | Assessment / PlanningYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: X No: TBD: |
| Summary | *Overview:* AHPS provides more accurate forecasts for river conditions ranging from droughts to floods. Anyone may view real-time observation and forecast data for rivers, lakes and streams and also provides longer-range probabilistic information helpful for water resource planning decisions. *Assessment:* Long-range probabilistic information can be used for water resource planning decisions. Flood inundation maps can show the extent of flooding over a given area and which areas are likely to be impacted by floodwaters.*Preparedness:* Inundation maps can inform emergency services and evacuation route planning. *Recovery:* N/A*Mitigation:* An objective of the program is to, along with river observations and river forecasts, provide decision-makers needed information to mitigate the impacts of flooding and build more resilient communities. |
| Links | <http://www.nws.noaa.gov/floodsafety/ahps.shtml>  |
| Additional Notes |  |

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| Program Name | NWS Flash Flood Guidance Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The Flash Flood Guidance Program issues warnings for flash floods with an online interactive map. It provides users with daily updates on flashfloods from the River Forecast Center. *Assessment:* N/A*Preparedness:* Decision makers, farmers and individuals preparing to respond to emergencies rely on flash flood warnings. *Recovery:* N/A*Mitigation:* N/A |
| Links | <http://www.srh.noaa.gov/rfcshare/ffg.php?location=MI&zoom_map=state&duration=6n>  |
| Additional Notes |  |

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| Program Name | NWS Post Flood Damage and Assessment and Reporting |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: TBD:X | IndividualsYes: No: TBD:X |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* NWS sends in teams to get data on the magnitude of the event and produce team series data on flood damages. [Additional information scarce.]This appears to be for internal evaluation rather than to be shared with local governments.*Assessment:* N/A*Preparedness:* N/A*Recovery:* N/A*Mitigation:*  |
| Links | <http://www.nws.noaa.gov/om/assessments/index.shtml> |
| Additional Notes | Either this program is very difficult to find information about, or it really isn’t meant to be a resource for anyone outside of NWS. |

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| Program Name | NWS River and Flood Forecasts |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | Assessment/PlanningYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes:No: TBD: X |
| Summary | *Overview:* NWS River Forecast Centers use hydrologic models to form daily river forecasts for use in agriculture, hydroelectric dam operation and water supply planning.*Assessment:* Forecasts are the basis for flood and flashflood warnings, watches and advisories.*Preparedness:* The forecasts are meant to be used by private interests and decision makers in planning for drought and flood conditions.*Recovery:* N//A*Mitigation:* One of the objectives is to be used to inform mitigation efforts, but doesn’t actively contribute to mitigation. |
| Links | <http://water.weather.gov/ahps/forecasts.php>  |
| Additional Notes |  |

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| Program Name | NWS Storm Prediction Center |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: TBD: X | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The Storm Prediction Center (SPC), located in Norman, Oklahoma, provides forecasts of hazardous weather events such as severe thunderstorms and tornadoes, ice or heavy snow, fire, weather and flash floods.*Assessment:* TBD*Preparedness:* Products issued from the SPC give the weather forecast offices specific guidance as to the probability and intensity of severe weather occurrences for regional to local geographic scales*Recovery:* N/A*Mitigation:* N/A |
| Links | <http://www.spc.noaa.gov/>  |
| Additional Notes |  |

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| --- | --- |
| Program Name | NWS Weather Warnings and Forecasts |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | Assessment/PlanningYes: No: TBD: X  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The NWS issues warnings for tornados, flash floods, winter storms, fire weather, tropical cyclone/hurricane and airport and coastal/lakeshore marine forecasts. These forecasts are or use of the general public as well as decision makers.*Assessment:* TBD*Preparedness:* NWS’ early warning systems are integral to emergency preparedness on local, state and regional levels.*Recovery:* *Mitigation:*  |
| Links | <http://www.weather.gov/forecastmaps>  |
| Additional Notes |  |

## U.S. Small Business Administration (SBA) Programs

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| Program Name | Disaster Loan Program - Physical Disaster Loans |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes:No: XTBD: |
| Risk Management Phase | Assessment / PlanningYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* SBA provides low-interest disaster loans to businesses of all sizes, private non-profit 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. Loans are also available to homeowners.*Assessment: N/A**Preparedness: N/A**Recovery:* Businesses and individuals in declared disaster areas are eligible for financial assistance for the repair or replacement of property, machinery, equipment, fixtures, inventory and leasehold improvements.*Mitigation: N/A* |
| Links | All SBA Disaster Loans: <https://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/disaster-loans/types-disaster-loans><https://www.sba.gov/content/business-physical-disaster-loans>  |
| Additional Notes |  |

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| Program Name | Disaster Loan Program for Homeowners and Renters |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* SBA offers low-interest rate disaster loans to renters and homeowners up to $40,000 to repair damaged property and up to $200,000 to repair or replace a primary residence in a declared disaster area.*Assessment:* N/A*Preparedness:* N/A*Recovery:* The Homeowner and Renter loan program is intended to help disaster victims recover from natural disasters with loans to replace or repair property or homes damaged in presidentially declared disasters.*Mitigation:* N/A |
| Links | Fact Sheet for Homeowners and Renters:<https://www.sba.gov/content/fact-sheet-homeowners-and-renters>  |
| Additional Notes |  |

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| Program Name | Economic Injury Disaster Loans (EIDL) |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* Economic Injury Disaster Loans (EIDLs) are low interest loans available to small businesses, small agricultural cooperatives and non-profit organizations that have suffered substantial economic injury in a presidentially declared disaster area. Businesses can apply for both EIDL and physical disaster loans (totaling $2 million or less) following a natural disaster.*Assessment:* N/A*Preparedness:* N/A*Recovery:* Economic Injury Disaster Loans are also available to help businesses that are unable to meet financial obligations and operating expenses due to a disaster.*Mitigation:* N/Av |
| Links | Program Page: <https://www.sba.gov/content/economic-injury-disaster-loans>  |
| Additional Notes |  |

## U.S. Army Corps of Engineers (USACE) Programs

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| Program Name | Floodplain Management Services Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: X No: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: No: TBD: X |
| Summary | *Overview:* The USACE Flood Plain Management Services (FPMS) Program provides information and assistance to promote effective flood risk and floodplain management. They utilize existing floodplain information, surveys, and other reports containing floodplain delineations, flood profiles, and data on flood discharges and hydrographs. Each office: (1) provides interpretations as to flood depths, velocities and durations from existing data; (2) develops new data through field and hydrologic studies for interpretation; and (3) provides guidance on adjustments to minimize the adverse effects of floods and floodplain development.*Assessment:* Local governments can use FPMS information to better understand flood risks within their communities. *Preparedness:* N/A*Recovery:* N/A*Mitigation:* N/A |
| Links | FPMS Fact Sheet: <http://www.iwr.usace.army.mil/Portals/70/docs/frmp/FPMS_Factsheet_13SEP2012.pdf>  |
| Additional Notes |  |

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| Program Name | Levee Safety Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: No: TBD: X |
| Summary | *Overview:*Through its Levee Safety Program, USACE inspects federally authorized levee systems, including those operated and maintained by a non-federal sponsor. USACE conducts routine and periodic inspections and risk assessments to identify the risk drivers for a particular levee system. This information is used by levee sponsors to prioritize repairs, maintenance activities, and improve risk communications to the individuals and businesses in the leveed area. The activities of the USACE Levee Safety Program are conducted in conjunction with the USACE Rehabilitation Program (insert link to Rehab Program on this site).*Assessment:* Inspection and risk assessment results provide levee sponsors with more information about the risks and potential consequences if a levee does not perform as intended. *Preparedness:* N/A*Recovery:* N/A*Mitigation:* N/A |
| Links | Levee Safety Program website: <http://www.usace.army.mil/Missions/CivilWorks/LeveeSafetyProgram.aspx> |
| Additional Notes | National Levee Database:<http://www.usace.army.mil/Missions/CivilWorks/LeveeSafetyProgram/NationalLeveeDatabase.aspx>  |

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| Program Name | National Flood Risk Management Program |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The USACE Flood Risk Management Program (FRMP) works across the agency to focus the policies, programs and expertise of USACE toward reducing overall flood risk. This includes the appropriate use and resiliency of structures such as levees and floodwalls, as well as promoting alternatives when other approaches (e.g., land acquisition, flood proofing, etc.) reduce the risk of loss of life, reduce long-term economic damages to the public and private sector, and improve the natural environment.*Assessment:* N/A*Preparedness:* N/A*Recovery:* N/A*Mitigation:* N/A |
| Links | [www.nfrmp.us](http://www.nfrmp.us)  |
| Additional Notes |  |

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| Program Name | Rehabilitation Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: XNo: TBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The USACE Rehabilitation Program provides assistance to public sponsors of flood risk management projects to repair damages to a project from a storm or other disaster. In order to be eligible for assistance, public sponsors must operate and maintain their projects in accordance with USACE policies *(insert link when available)*. The activities of the Rehabilitation Program are conducted in coordination with the USACE Levee Safety Program (insert link to Levee Safety Program page on this site)*Assessment:* N/A*Preparedness:* If a flood event is imminent, USACE can provide emergency assistance including technical and direct assistance for flood fighting and advance measures. *Recovery:* If a flood risk management project has been damaged by a disaster event and is eligible to receive assistance, USACE will cost share the repair of the project. *Mitigation:* USACE will consider assisting implementation of modifications to a flood risk management project in order to mitigate future damages.  |
| Links | <http://www.iwr.usace.army.mil/Missions/FloodRiskManagement/FloodRiskManagementProgram/PartnersinSharedResponsibility/USACEStaff/PL8499RehabilitationProgram.aspx>  |
| Additional Notes | Policies for the program are currently being updated (33 CFR 203 and ER/EP 500-1-1) |

## U.S. Bureau of Reclamation (USBR) Programs

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| Program Name | Dam Operation and Dam Safety Program  |
| Applicability  | Local GovernmentsYes: No: TBD: X | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: X TBD: |
| Risk Management Phase | Assessment:Yes: XNo: TBD:  | PreparednessYes: No: TBD: X | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Assesses the safety and rehabilitation needs of Bureau of Reclamation dams (in Arizona, California, Nevada and Mexico) focusing on the possible consequences in the event of a dam failure. The Dam Safety Program encompasses two other programs, the Safety Evaluation of Existing Dams program to perform site evaluations and identify dams that pose an increased threat to the public and the Safety of Dams (SOD) program for evaluating and implementing actions to resolve safety concerns at Reclamation Dams. *Assessment:* SEED’s objective is to identify structural or other deficiencies in dams that could lead to severe impacts. SOD evaluates all impacts and concerns of dam rehabilitation.*Preparedness:*  Unclear if part of the program could be doing contingency planning in case of a disaster.*Recovery:* N/A*Mitigation:* SEED identifies short term fixes to mitigate risk of dam failure. SOD evaluates all concerns of dam rehabilitation to recommend corrective actions. |
| Links | <http://www.usbr.gov/ssle/damsafety/>  |
| Additional Notes | Program does not provide funding for local governments.Presentation about Dam Safety Program: <http://pbadupws.nrc.gov/docs/ML1305/ML13057A224.pdf>  |

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| Program Name | Flood Hydrology and Emergency Management Group |
| Applicability  | Local GovernmentsYes: No: TBD: X  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | Assessment:Yes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* This Flood Hydrology and Meteorology Group provides technical investigations, designs, reviews, and related work in flood hydrology, hydrometeorology, and meteorology. The Group’s staff provide expertise for the hydrological aspects of Reclamation's Dam Safety Program and services to other Department of the Interior agencies.*Assessment:* The group performs hazard classifications, population at risk and loss of life estimations, dam break and flood inundation studies.*Preparedness:* N/A*Recovery:* N/A*Mitigation:* The group provides guidance in selecting risk reduction alternatives for dams. |
| Links | <http://www.usbr.gov/tsc/flood/>  |
| Additional Notes |  |

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| Program Name | Flood Risk Management Activities  |
| Applicability  | Local GovernmentsYes: No: TBD: X | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | Assessment/PlanningYes: No: TBD: X | PreparednessYes: No: TBD:X | RecoveryYes: No: TBD: X | MitigationYes: X No: TBD: |
| Summary | *Overview:* On a limited basis, BOR may engage in other flood risk mitigation activities, sometimes in partnership with other agencies, determined by funding availability.*Assessment:* The activities might have included risk assessment in the past*Preparedness:* TBD*Recovery:* TBD*Mitigation:* In the past the BOR flood risk mitigation activities have included funding actions to protect businesses from flood damage from specific events, identify strategies to reduce flooding and improve dams to reduce flood risk.  |
| Links |  |
| Additional Notes | Activities are completely contingent on funding availability. |

## U.S. Department of Agriculture (USDA) Programs

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| Program Name | USDA Crop Insurance Program |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: TBD:X |
| Summary | *Overview:* The USDA provides crop insurance to farmers to cover disaster damages, including flooding. There are a wide variety of plans available allowing farmers to insure against yield losses, revenue losses for a crop or the whole farm, declining value, or widespread loss of a particular crop in a particular county. The Federal Crop Insurance Corporation indemnifies ranchers and farmers who have purchased crop insurance for production losses attributable to natural hazards. More information on eligibility can be found in the [2014 Crop Insurance Handbook](http://www.rma.usda.gov/handbooks/18000/2014/18010.pdf).*Assessment:* N/A*Preparedness:* N/A*Recovery:* Insurance is provided to protect against unavoidable loss from naturally occurring events like droughts and floods. *Mitigation:* N/A |
| Links | <http://www.rma.usda.gov/handbooks/18000/2014/18010.pdf>  |
| Additional Notes |  |

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| Program Name | Emergency Conservation Programs |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: TBD: X |
| Summary | *Overview:* The ECP helps farmers and ranchers repair damage to farmlands caused by natural disasters by providing up to 75% of the cost to implement emergency conservation practices. To qualify for ECP funds, damage from a natural disaster or severe drought must create new conservation problems that would further damage or decrease productive capacity of farmland, be too costly to repair without federal assistance, and represent an unusual natural disaster for the area. *Assessment:* N/A*Preparedness:* N/A*Recovery:* The ECP provides assistance to repair damaged farmland. *Mitigation:* This isn’t an objective, but repairing farmland can mitigate further impacts.  |
| Links | <http://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index>  |
| Additional Notes |  |

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| Program Name | Emergency Loan Assistance |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: XNo: TBD: | MitigationYes: No: TBD:X |
| Summary | *Overview:* Administered by the Farm Service Agency, emergency loans help producers recover from production and physical losses from drought, flooding and other natural disasters. Loans are only available to farmers in disaster areas (as declared by the President or designated by the Secretary of Agriculture) that have suffered at least a 30% loss of production, have an acceptable credit history, are U.S. Citizens, are unable to receive credit from commercial sources, and collateral must be available to back the loans.*Assessment:* N/A*Preparedness:* N/A*Recovery:* Loans can be used to restore or replace damaged property, cover crop costs, cover essential family living expenses, reorganize farming operations, and refinance some debts.*Mitigation:* TBD |
| Links | Emergency Loan Overview: <http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20150312_farln_en_15emln.html>  |
| Additional Notes | Emergency Loan Fact Sheet: <http://www.fsa.usda.gov/Internet/FSA_File/emloanpr_mar2015.pdf>  |

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| Program Name | Livestock Indemnity Program (LIP) |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: TBD:  |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: X No: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* LIP pays up to 75% of the market value of livestock lost in an eligible adverse weather event. The livestock owner must submit a notice of loss within 30 days of the loss of livestock and within 30 calendar days of the loss or within 30 days of the end of the calendar year and submit an application within 60 days of the natural disaster and within the calendar year for which the support is requested.*Assessment:* N/A*Preparedness:* N/A*Recovery:* LIP provides benefits to livestock producers for livestock deaths in excess of normal mortality caused by adverse weather.*Mitigation:* N/A |
| Links | Program Overview: <http://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index>Fact Sheet: <http://www.fsa.usda.gov/Internet/FSA_File/lip_long_fact_sht_2014.pdf>  |
| Additional Notes |  |

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| Program Name | Noninsured Crop Disaster Assistance Program (NAP) |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: X No: TBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* Planters of non-insurable crops can receive a type of insurance for losses from natural disasters including floods. To be eligible the average nonfarm adjusted gross income cannot exceed $900,000. To be eligible, crops must be agricultural commodities for which catastrophic risk protection level of crop insurance is not available. A list of eligible crops can be found [here](http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20141212_distr_en_nonins_cr.html).*Assessment:* N/A*Preparedness:* N/A*Recovery:* Provides financial assistance to producers of non-insurable crops to protect against natural disasters that result in lower yields or crop losses, or prevents crop planting*Mitigation:* N/A |
| Links | Program Fact Sheet: <http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20141212_distr_en_nonins_cr.html>  |
| Additional Notes |  |

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| Program Name | NRCS Technical Assistance |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes:No: XTBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Technical and financial assistance available from the Natural Resources Conservation Service (NRCS) can help landowners and land managers maintain riparian and floodplain setbacks to protect these margins as waterfront areas come under development pressure. NRCS's natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. This program varies regionally, and resources are available through local USDA service centers.*Assessment:* The NRCS’ services in some areas may help identify and assess flood risk*Preparedness:* N/A*Recovery:* N/A*Mitigation:* The programs’ objectives include reducing damages caused by floods and other natural disasters. |
| Links | <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/mt/water/?cid=nrcs144p2_057954> |
| Additional Notes |  |

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| Program Name | Watershed and Flood Prevention Operations (WFPO) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: X No: TBD: |
| Summary | *Overview:* Operated by the NRCS, the program provides technical and financial assistance to states or local governments implementing watershed protection or restoration projects. To be eligible, a watershed project must have benefits that are directly related to agriculture, be less than 250,000 acres, be ineligible for funding from any other federal program and have a local sponsor that oversees public participation in planning, provides a local share of funds, and commits to operating and maintaining the project. *Assessment:* N/A*Preparedness:* N/A*Recovery:* N/A*Mitigation:* The main emphasis of Watershed Operations assistance is on measures for hazard reduction including flood hazard reduction dams and reservoirs.  |
| Links | Program Page: <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/landscape/wfpo/?cid=nrcs143_008271>  |
| Additional Notes |  |

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| Program Name | Watershed Rehabilitation Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: TBD: X | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: TBD: X | PreparednessYes: No: XTBD: | RecoveryYes: No: TBD:X | MitigationYes: XNo: TBD: |
| Summary | *Overview:* The Watershed Rehabilitation program assists communities and landowners upgrade or decommission USDA-constructed flood hazard reduction dams that have reached the end of their design lives. The program provides technical and financial assistance to help local governments and private landowners to plan and implement dam rehabilitation.*Assessment:* Some assessment of risk might be folded into this.*Preparedness:* N/A*Recovery:* Damage to dam could be from natural disaster*Mitigation:* The program supports rehabilitation of dams that is needed to address critical public health and safety issues and can reduce flood risk and erosion damages. |
| Links | Catalogue of Federal Domestic Assistance <https://www.cfda.gov/index?s=program&mode=form&tab=core&id=6e0d4727963f2768f5854825097cec98>NRCS Program Page <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wr/>  |
| Additional Notes | Follow up on current status. Last funded in FY2010.Funding for damages from natural disasters? |

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| Program Name | Watershed Surveys and Planning |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD: | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: X No: TBD: |
| Summary | *Overview:*The Watershed Surveys and Planning program assists Federal, State, and local agencies and tribal governments to protect watersheds from damage caused by erosion, floodwater, and sediment and to conserve and develop water and land resources. *Assessment:* The surveys and plans can include river basin surveys and studies and flood hazard analyses.*Preparedness:* N/A*Recovery:* N/A*Mitigation:* The surveys and plans supported by the program can include watershed plans and flood plain management assistance. |
| Links | Federal\_FRM\_Program\_Descriptions\_10AUG2015.docx<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wsp/>  |
| Additional Notes |  |

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| Program Name | Wetlands Reserve Program (WRP) |
| Applicability  | Local GovernmentsYes: No: XTBD:  | Businesses/FarmsYes: XNo: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: No: XTBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* Through the WRP, NRCS supports wetlands preservation and restoration by offering landowners technical and financial support to protect, restore and enhance wetlands on their property with the goal of achieving the greatest wetland function. A list of lands available for WRP is available [here](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/wetlands/). *Assessment:* N/A*Preparedness:* N/A*Recovery:* N/A*Mitigation:* A co-benefit of protecting, restoring and enhancing wetlands is mitigating flood risk for surrounding and downstream areas. |
| Links | <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/wetlands/>  |
| Additional Notes |  |

## U.S. Geological Survey (USGS) Programs

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| Program Name | Assessing Societal Vulnerability to Natural Hazards Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: XTBD:  | IndividualsYes: No: XTBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: TBD:X |
| Summary | *Overview:* A program of the Land Change Science Program at USGS, the Assessing Societal Vulnerability to Natural Hazards Program carries out risk and vulnerability studies to develop quantitative, qualitative and geospatial methods and decision support tools to characterize and communicated vulnerability of human communities and natural ecosystems to hazard events.[Not sure about eligibility]*Assessment:* The assessments are targeted at local and State governments and integrate natural hazards as well as community exposure, sensitivity and resilience. *Preparedness:* To help prepare for the impacts of hazards before they strike, LCS researchers develop fully realized scenarios of disaster events in collaboration with Federal, State, local and university partners.*Recovery: N/A**Mitigation: N/A* |
| Links | <http://www.usgs.gov/climate_landuse/lcs/sciTopics.asp#nhaz>  |
| Additional Notes |  |

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| Program Name | Flood Inundation Mapping Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: XNo: TBD:  | IndividualsYes: XNo: TBD: X |
| Risk Management Phase | AssessmentYes: X No: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: XNo: TBD: | MitigationYes: XNo: TBD: |
| Summary | *Overview:* the USGS Flood Inundation Mapping Program has two main functions: to partner with local communities to assist with development and validation for flood inundation map libraries and to provide online access to flood inundation maps along with real-time streamflow data, flood forecasts and potential loss estimates.*Assessment:* Inundation maps identify areas of higher risk for flooding.*Preparedness:* By showing where flooding may occur over a range of water levels in the community’s local stream or river and identify which stream sections where flooding will likely occur. The FIM Mapper allows users to explore the full set of inundation maps that show where flooding might occur in different conditions.*Recovery:* The FIM Mapper can aid with damage assessments.*Mitigation:* The FIM Mapper could help with locating different flood risk reduction projects though there aren’t any tools that directly address this. |
| Links | <http://water.usgs.gov/osw/flood_inundation/>  |
| Additional Notes |  |

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| Program Name | Landslide Hazards Program |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: No: TBD:  | IndividualsYes: No: TBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The Landslide Hazards Program monitors landslides to predict their behavior and forecast which storms might trigger larger numbers of landslides. The LHP website makes information about predicting and preparing for landslides publicly available.*Assessment:* In some locations real-time monitoring is used and in others periodic monitoring is carried out to learn more about the physical processes that trigger landslides. *Preparedness:* The research and monitoring carried out in the LHP is then used when the LHP works with states and federal agencies to reduce landslide losses working most closely with the locations at the greatest risk. *Recovery:* *Mitigation:*  |
| Links | Program Page: <http://landslides.usgs.gov/> Landslide Monitoring: <http://landslides.usgs.gov/monitoring/> Landslide Resources: <http://landslides.usgs.gov/learn/>  |
| Additional Notes |  |

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| Program Name | National Map (Elevation and Hydrography) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmsYes: X No: TBD:  | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: No: XTBD: | RecoveryYes: No: XTBD: | MitigationYes: No: XTBD: |
| Summary | *Overview:* The National Map Viewer and Download Platform allows visualization and download of topographic base maps and includes a Natural Hazards viewing tool to show hazards-related information for earthquakes, floods, wildfires and weather. This tool is available to the public. *Assessment:* The National Map provides visualization of hazard areas and the National Elevation Dataset (NED) provides raw GIS data for use in mapping and modeling of natural hazards.*Preparedness:* N/A*Recovery:* N/A*Mitigation:* N/A |
| Links | <http://nationalmap.gov/viewer.html>  |
| Additional Notes |  |

Note: NSIP includes River Gages, Flood and Drought Frequency Evaluations, Post-Flood Data Analysis

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| Program Name | National Streamflow Information Program (NSIP) |
| Applicability  | Local GovernmentsYes: XNo: TBD:  | Businesses/FarmYes: X No: TBD: | IndividualsYes: XNo: TBD: |
| Risk Management Phase | AssessmentYes: XNo: TBD:  | PreparednessYes: XNo: TBD: | RecoveryYes: No: TBD: X | MitigationYes: No: XTBD: |
| Summary | *Overview:* The NSIP aims to provide streamflow information and interpretation for local, state, regional and national needs. The program includes a Stream gaging network, flood and drought monitoring, regional and national streamflow assessments, and provides the public with continued investment in methods development and research. The data is also used in post flood assessments. *Assessment:* Intensive data collection during major floods and droughts improves estimates of risk and impacts for better hazard response and mitigation. Temporary stream gages are deployed during floods so data is more accurate for forecasting flooding. *Preparedness:* The stream gage network monitors water flows to inform planning and decisions related to agriculture, industry, urban water supplies, navigation, riverine and riparian habitat, and flood hazard identification. Regional estimates of streamflow inform ecological restoration, delineation of flood hazard zones and design of bridges and other structures. *Recovery:* After flooding the data is used in post-flood assessments to improve understanding of watershed response to extreme hydrologic events and changing rainfall and runoff patterns. *Mitigation:* N/A |
| Links | <http://water.usgs.gov/nsip/>  |
| Additional Notes |  |