

Hazard Mitigation Planning: Points of Entry

Logan Sand, Senior Community Planner, Mitigation Division, FEMA Region 8

October 31, 2023



FEMA

FEMA Region 8

FEMA Region 8

- Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
- 29 Tribal Nations



FEMA

Hazard Mitigation Planning

1

**Plan and
Invest for
the Future.**

The plan is based on the experiences of the past and present and on projections for the future, including long-term climate change considerations and changes in development.

2

**Collaborate
and Engage
Early.**

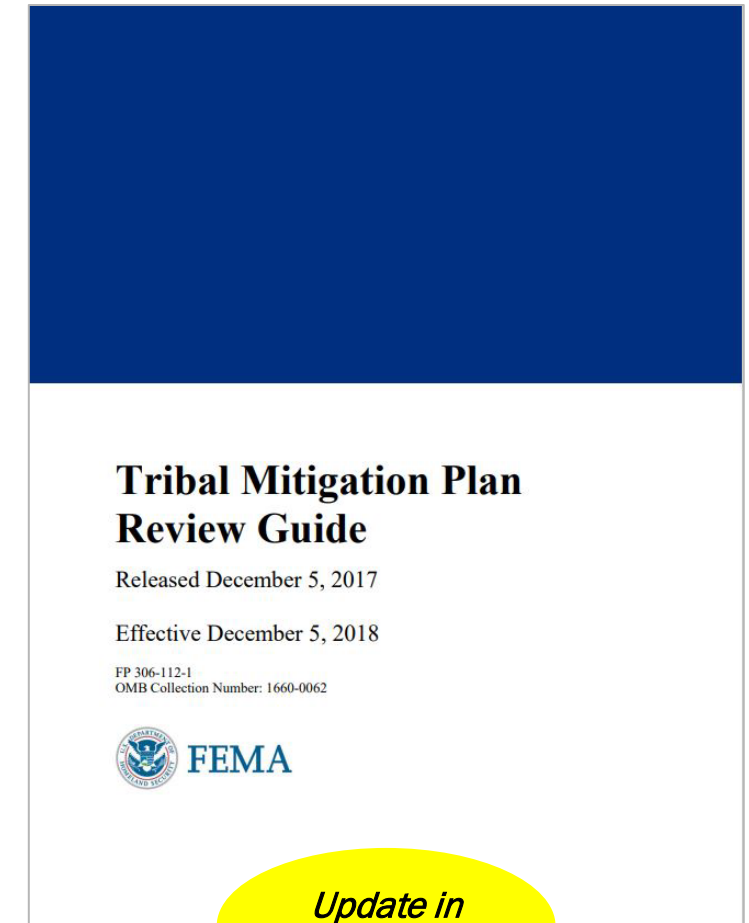
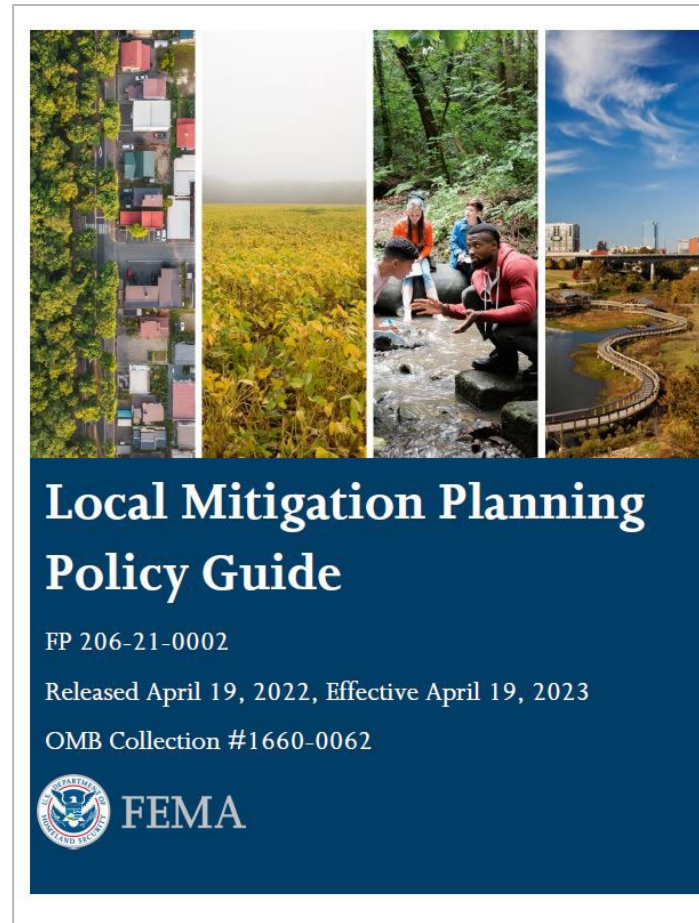
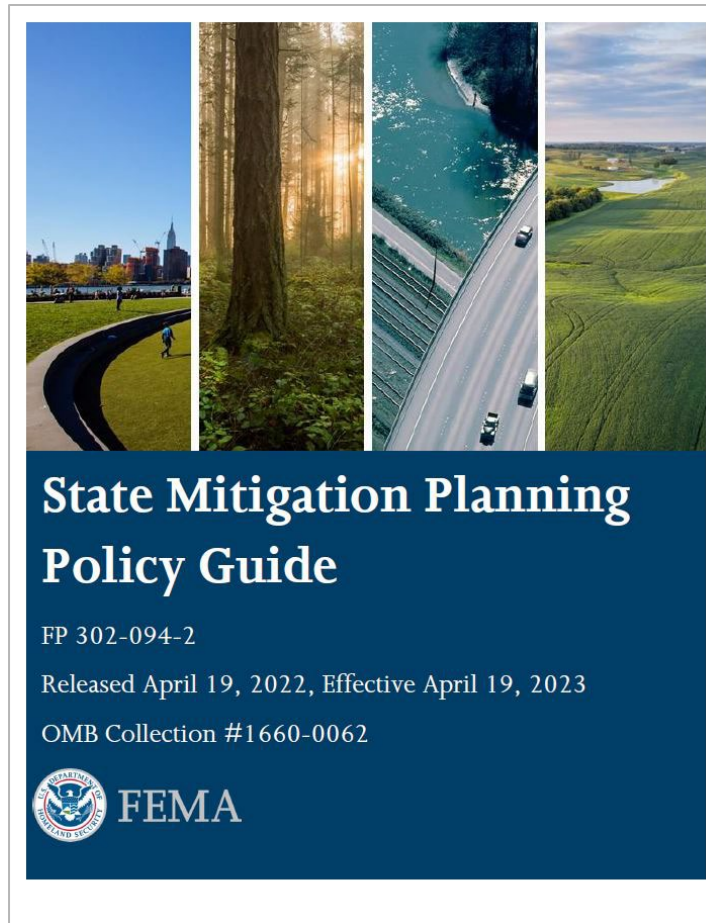
The planning process brings together diverse community-based partners representing the interests of the whole community.

3

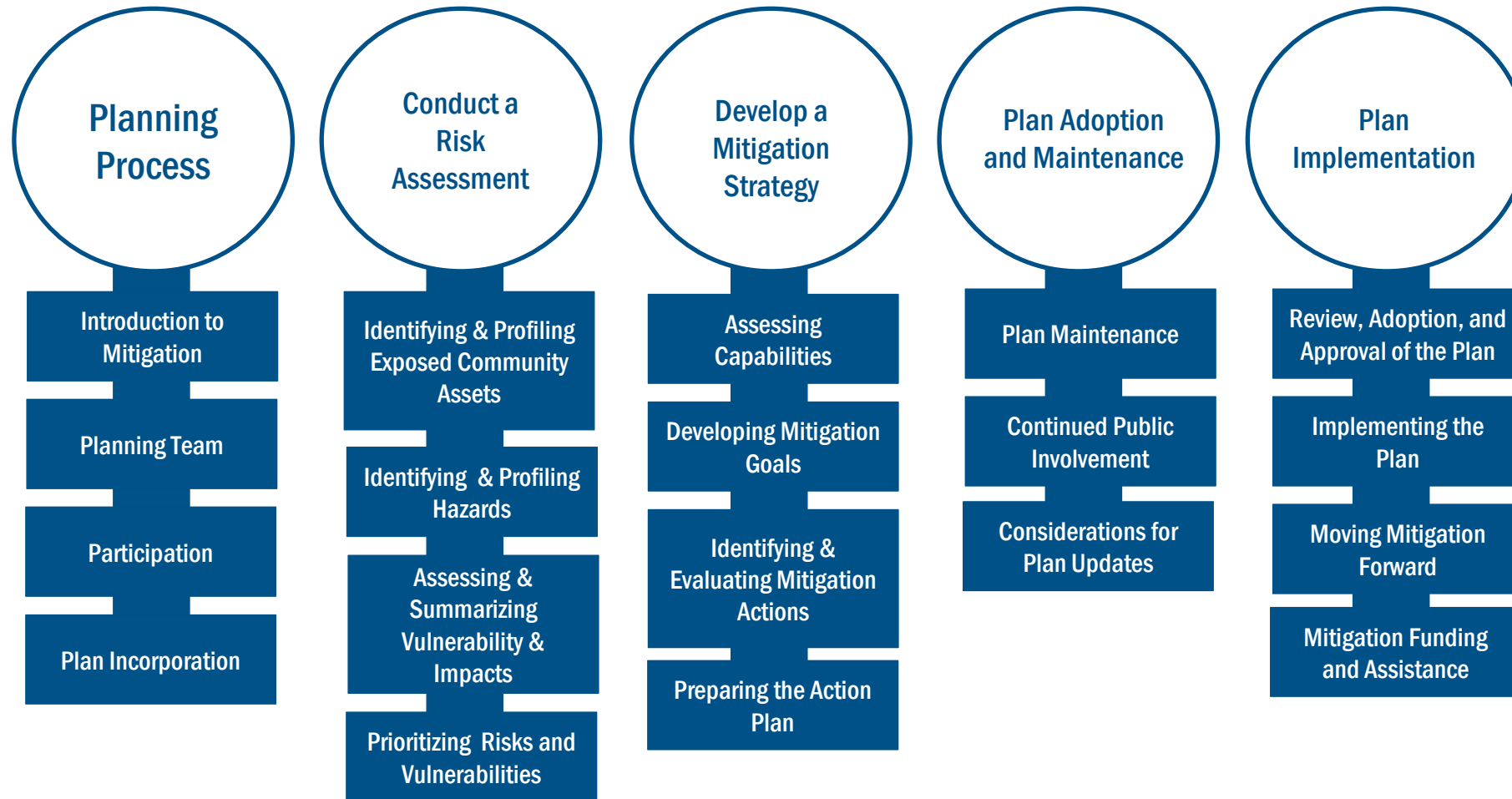
**Integrate
Community
Planning**

Design the planning process to fit the unique needs of each community. Integrate and align the mitigation plan with related plans such as land use, economic development and transportation plans.

Mitigation Planning (44 Code of Federal Regulations (CFR) Part 201)



Stages of Plan Development



FEMA

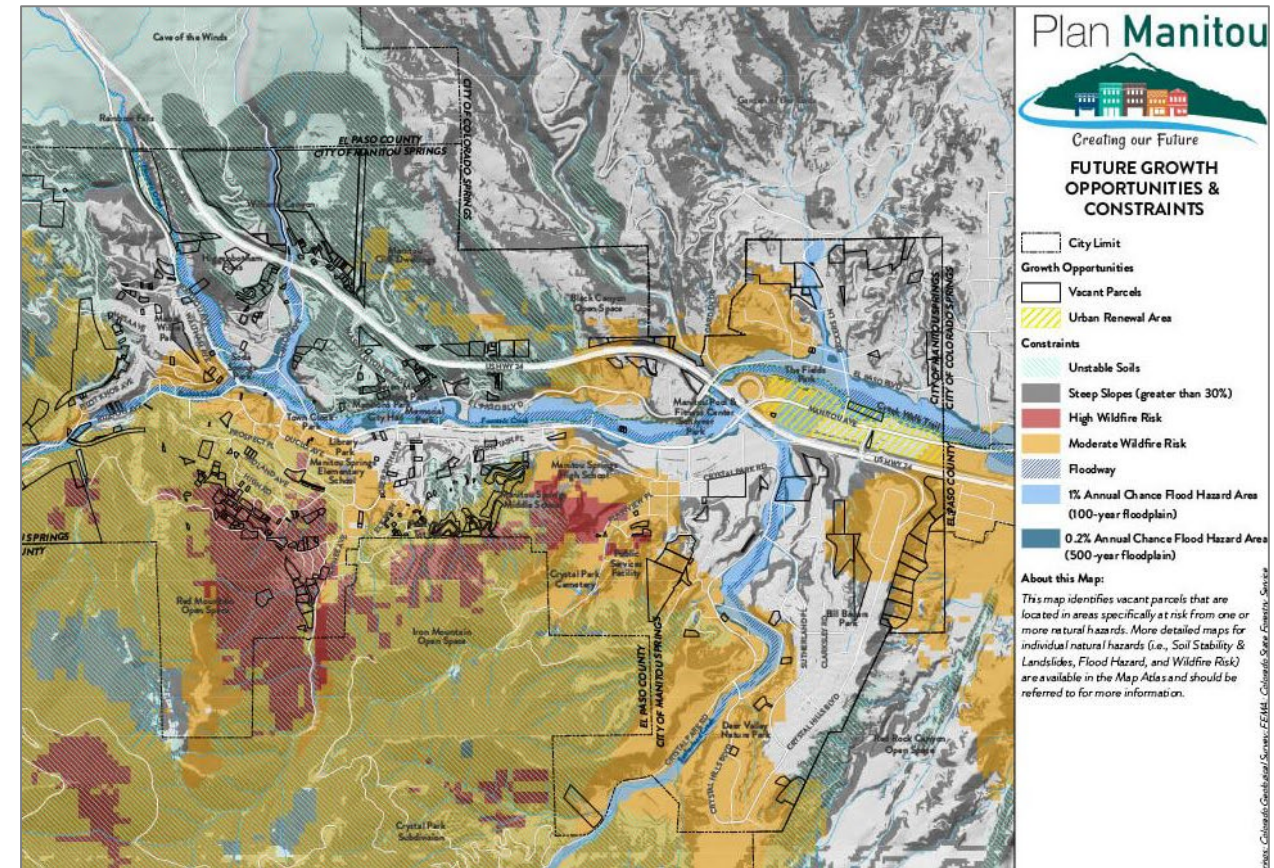
Mitigation Planning

Integrated Planning Process

- Engage subject matter experts, stakeholders and the public.

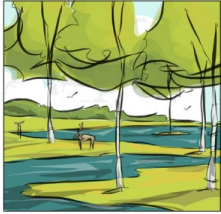
Risk Assessment

- Identify and describe all hazards.
- Analyze, identify assets, including infrastructure, community lifelines, and critical facilities.
- Determine, and summarize the vulnerability of assets to damage and loss from the identified hazards.



FEMA

Mitigation Planning



WETLAND RESTORATION AND PROTECTION

Restoring and protecting wetlands can improve water quality and reduce flooding. Healthy wetlands filter, absorb, and slow runoff.

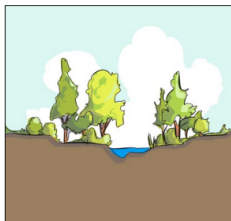
Wetlands also sustain healthy ecosystems by recharging groundwater and providing habitat for fish and wildlife.



STORMWATER PARKS

Stormwater parks are recreational spaces that are designed to flood during extreme events and to withstand flooding.

By storing and treating floodwaters, stormwater parks can reduce flooding elsewhere and improve water quality.



FLOODPLAIN RESTORATION

Undisturbed floodplains help keep waterways healthy by storing floodwaters, reducing erosion, filtering water pollution, and providing habitat.

Floodplain restoration rebuilds some of these natural functions by reconnecting the floodplain to its waterway.

Capabilities Assessment

- Policies, programs and capabilities of jurisdictions to accomplish hazard mitigation.
- Includes administrative, financial, and technical.

Mitigation Strategy

- Long-term blueprint of investments and actions for reducing the potential losses identified in the risk assessment.
- Not just EM responsibility, whole of government and community levels.

Implement the Plan!



FEMA

Planning with and for the Whole Community



Mitigation Grants

FEMA's Hazard Mitigation Assistance (HMA) Program Overview

Disaster Cycle Grant Programs



Public Assistance (PA) 406 Mitigation

Supports communities' recovery from major disasters by providing mitigation funding opportunities to restore and strengthen public infrastructure. HMA works to enhance coordination with PA.



Hazard Mitigation Grant Program (HMGP)

Implements long-term hazard mitigation measures after a major disaster declaration.



HMGP Post-Fire

Helps communities implement hazard mitigation measures after wildfire disasters.

Annual Cycle Grant Programs



Flood Mitigation Assistance (FMA)

Reduces or eliminates the risk of repetitive flood damage to buildings and structures insured under the National Flood Insurance Program (NFIP).



Building Resilient Infrastructure and Communities (BRIC)

Supports the undertaking of new and innovative projects that reduce the risks faced from disasters and natural hazards.



Rehabilitation of High Hazard Potential Dams (HHPD)

Supports mitigation projects before a disaster strikes to build stronger, more resilient communities.



Pre-Disaster Mitigation (PDM)

Supports mitigation projects before a disaster strikes to build stronger, more resilient communities.

New: Safeguarding Tomorrow Revolving Loan Fund Program



FEMA

Building Resilient Infrastructure and Communities (BRIC) and BRIC Direct Technical Assistance

2023 BRIC Program Priorities

- Incentivize natural hazard risk reduction activities that mitigate risk to public infrastructure
- Incorporate nature-based solutions including those designed to reduce carbon emissions
- Enhance climate resilience and adaptation
- Promote equity and prioritize disadvantaged communities as referenced in Executive Order (EO) 14008: Tackling the Climate Crisis at Home and Abroad
- Increase funding to applicants that facilitate the adoption and enforcement of the latest published editions of building codes



FEMA

BRIC FY23 National Qualitative Criteria

Federal Emergency Management Agency

13

BRIC FY22: Saratoga Encampment Rawlins Conservation District, Wyoming– North Platte River - Boozer Creek Restoration

Federal Share \$886,297 Thousand
Grand Total: \$ 1,181,729 Million



History: The Platte River-Boozer Creek Restoration Project is a stand-alone restoration to stabilize the North Platte River within a channel that has a long history of instability.

Project Description: Realign Boozer Creek to a more stable form to provide bank stabilization and reduce the risk of flooding at a remnant channel of the North Platte River (referred to as Boozer Creek). The includes bank treatments using onsite trees/sod mats/willow plants and boulder grade control structures designed to mitigate flooding using proven approaches that enhance the aquatic, riparian, and wetland habitats.

Project Topics and Benefits:

- Stabilization and restoration
- Shoreline and/or bank stabilization
- Nature-Based Solution



Capability & Capacity Building Activities

Example C&CB Activities



Develop a new/update existing hazard mitigation plan and other types of planning efforts (e.g., integrated water resource/watershed master plan, climate adaptation plan, resource management/conservation plan, etc.)

Scoping and developing hazard mitigation projects and alternatives, including engineering design and feasibility studies

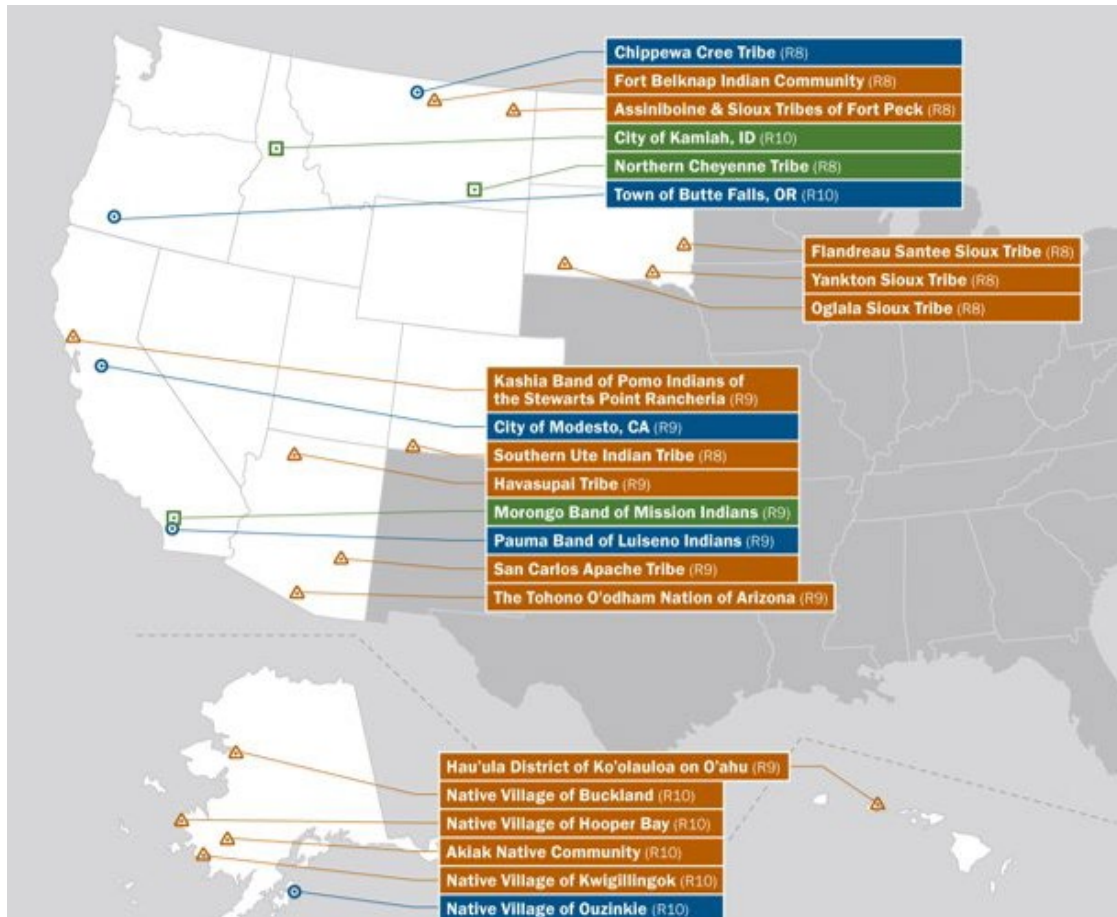
Develop and/or adopt building codes, specifications, and/or standards or develop building codes requirements, such as land use, zoning, floodplain management, wildland-urban interface defensible space, or other area, that help make the community more resilient

Supporting partner identification or partnership development activities (e.g., hosting a partner fair, pursuing initiatives with higher education institutions, engaging with economic development organizations)



FEMA

BRIC Direct Technical Assistance



- Non-financial
- Full, wide ranging support to communities that may not have the resources to begin climate resilience planning and project solution design on their own
- Who is eligible:
 - Cities, towns, counties, special district governments, tribal governments, groups
 - No requirement for a previous BRIC grant sub-application or award, or an approved hazard mitigation plan, to be considered for participation



FEMA

Flood Mitigation Assistance (FMA)

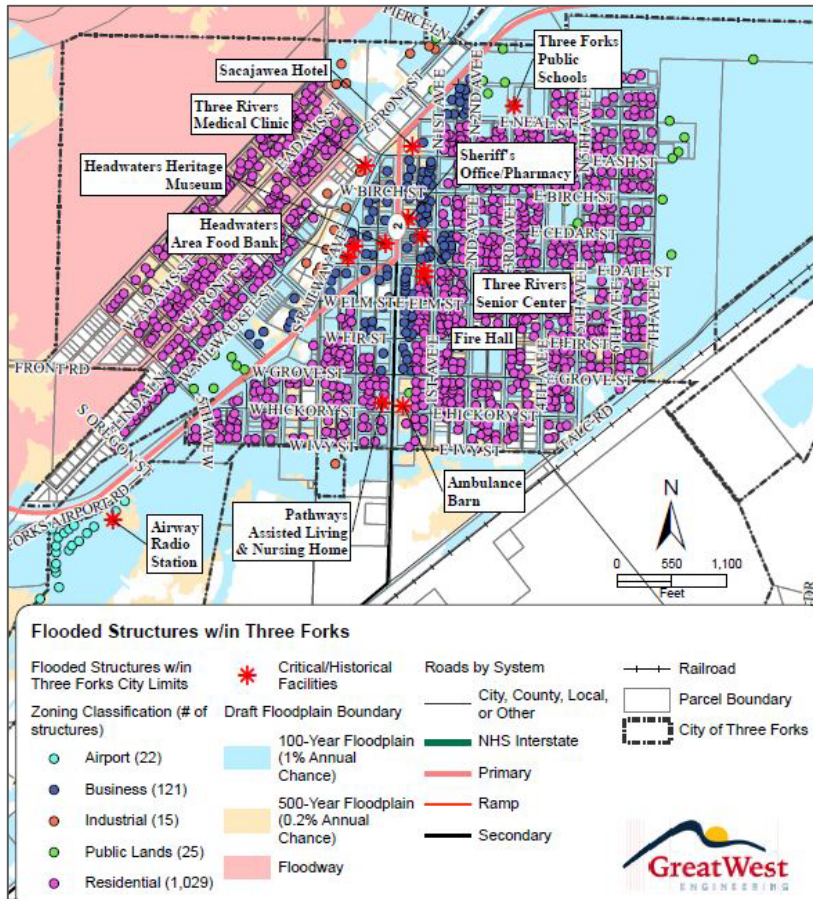
Flood Mitigation Assistance

- Funds to state, local, tribal and territorial governments reduce or eliminate the risk of repetitive flood damage to buildings insured under the National Flood Insurance Program (NFIP).
- The funding priorities for this application cycle are: (1) Capacity and Capability Building activities, (2) Localized Flood Risk Reduction Projects, and (3) Individual Flood Mitigation Projects.



FEMA

FMA FY21: City of Three Forks, Montana – *Mitigation for Affordability, Climate Resiliency, and Economic Vitality for a Community Confluence Project*



Federal Share \$4.15 Million | Grand Total \$5.53 Million

History: The city of Three Forks is a rural community of nearly 2,000 people in southwest Montana. It is located just south of the confluence of three major rivers, posing significant flood risk.

Project Description: The project consists of a conveyance channel (with a culvert crossing under Montana Highway 2) that is designed to capture floodwater and divert excess water back to the Jefferson River. The culvert expansion and storage pond capacity will protect nearly 1,000 structures from flooding and yielded multiple ancillary benefits including wildfire and drought.

Project Topics and Benefits:

- Flood Mitigation
- Nature-Based Solution
- Critical Infrastructure Protection (100-year level flood protection to eight facilities (fire hall, city hall, medical clinic, etc.).



FEMA

Hazard Mitigation Grant Program (HMGP)

HMGP Funding Categories

Projects

Advance Assistance

Develop mitigation strategies and obtain data to complete applications

5% Initiative

Funding set aside for activities where cost effectiveness is difficult to measure

Regular HMGP Projects

Hazard mitigation projects

Planning (up to 7%)

Planning-related activities, update or enhance mitigation plan

Management Costs (up to 15%)

Indirect costs and administrative expenses
Recipient can receive up to 10%
Subrecipient can receive up to 5%



FEMA

HMGP: **Ninemile Creek - Missoula County, Montana– *Nature-Based Flood Storage and Drought Mitigation***

Grand Total (est.): \$ 1.3 Million

Project Description: The project area has been impacted by over 100 years of historic mining activities.

Benefits: Decreases peak flooding and increases groundwater storage of runoff in order to increase overall resilience within the Nine Mile watershed and protect downstream agriculture crop losses from reoccurring drought. The project will also benefit the surrounding natural environment, aquatic and riparian species.

Partners: City of Missoula, Trout Unlimited, Patagonia, Montana Fish, Wildlife & Parks, FEMA



HMGP: City of Missoula, Montana– *Rattlesnake Reservoir Removal and Restoration*

Grand Total (est.): \$ 1 Million



Project Description: Remove inoperable dam and restore land.

Benefits: Rattlesnake Creek is one of the major sources of trout for the Clark Fork River and a highly popular recreation area for the public. Removal of the dam reduces Missoula Water's work on maintenance and operations, reconnects 26 miles of habitat for fish and wildlife, creates new opportunities for trails and other recreation and reestablish a natural river connection between the Rattlesnake Wilderness at the headwaters and the Clark Fork River for the first time in more than 100 years.

Partners: Missoula Water, Missoula Parks & Recreation, Trout Unlimited, Patagonia Montana Fish, Wildlife & Parks



FEMA

Thank you!

Logan Sand
Senior Community Planner, FEMA Region 8
logan.sand@fema.dhs.gov



FEMA