TRIBAL MITIGATION
Planning Handbook

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FEMA

TABLE OF CONTENTS

Introduction **1**
Purpose of this Handbook 1
Orientation to this Handbook 2

Why Develop a Tribal Mitigation Plan? **3**

Planning Process **4**
Choosing Your Approach 4
Building the Planning Team 5
Engaging the Public 7
Gathering Data, Plans, Reports, and Studies 7
Integrating the Mitigation Planning Process 8

Plan Development Steps **12**
Step 1: Describe your community. 13
Step 2: Identify your hazards. 16
Step 3: Explain impacts that hazards can have on the community 23
Step 4. Review your current capability to mitigate hazards 27
Step 5: Develop the strategy 33
Step 6: Develop an action plan 36
Step 7: Keep track of progress. 38

Implementing the Plan **43**

Considerations for Plan Updates **45**

The Importance of Documentation **46**

Conclusion **47**

Appendix A: Mitigation Planning Resources **A-1**

Appendix B: Sample Planning Framework **B-1**
Sample Meetings and Workshops B-1
Sample Planning Timeline B-4

Appendix C: Planning Process Worksheets **C-1**
1. Planning Team Worksheet C-2
2. Asset Inventory C-5
3. Hazard Identification and Risk Assessment Worksheet C-7
4. Problem Statement Worksheet C-9
5. Capability Assessment C-12
6. NFIP Compliance Worksheet C-17
7. Mitigation Action Evaluation and Prioritization C-19
8. Mitigation Action Implementation Sheet C-21
9. Mitigation Action Progress Report C-22
10. Plan Monitoring and Evaluation Worksheet C-23
11. Sample Tribal Adoption Resolution C-25

INTRODUCTION

Disasters can cause loss of life, damage buildings and infrastructure, and have devastating consequences for a Tribal Nation's economic, social, and environmental well-being. Hazard mitigation reduces disaster damage and is defined as sustained action taken to reduce or eliminate the long-term risk to life and property from natural hazards. Mitigation is most effective when implemented under a comprehensive, long-term mitigation plan that is developed before a disaster.

Tribal governments engage in hazard mitigation planning to identify risks and vulnerabilities associated with natural disasters and to develop long-term strategies for protecting communities from future hazard events. A FEMA-approved hazard mitigation plan is required for receiving certain types of non-emergency disaster assistance, including funding for Hazard Mitigation Assistance projects and Public Assistance permanent work (Categories C–G) for tribal governments applying directly to FEMA for assistance.[1] Tribal hazard mitigation plans are approved for 5-year periods and must be updated to maintain grant eligibility.

Purpose of this Handbook

The Tribal Mitigation Planning Handbook (the Tribal Handbook) is a tool for tribal governments to use in developing a mitigation plan that meets the requirements of Title 44 of the Code of Federal Regulations, Section 201.7 (44 CFR § 201.7). It focuses on practical approaches for how Tribal Nations can build mitigation plans that reduce long-term risk from natural hazards. It is a companion to the Tribal Mitigation Plan Review Guide, released by FEMA in 2017. While the Tribal Mitigation Plan Review Guide is intended to help federal officials review and approve tribal mitigation plans, the Tribal Handbook is intended to help tribal governments develop these plans. It is important to remember that there is no required format or outline for a mitigation plan. The regulations govern planning for natural hazards only, but Tribal Nations may choose to plan for both natural and manmade hazards. The regulations describe what should be done, not how the plan should be written, so Tribal Nations should feel free to develop and organize the plan in a way that works within their governance and tradition.

Ultimately, hazard mitigation planning leads to action that will reduce long-term risk from natural hazards using a wide range of resources.

[1] Tribal governments have the option of applying directly to FEMA for assistance (applying as an applicant) or applying through and coordinating with a state (applying as a sub-applicant). There are different mitigation planning requirements for applicants and sub-applicants. These are listed in Appendix D of the Tribal Mitigation Plan Review Guide (2017).

Orientation to this Handbook

The Tribal Handbook is organized around the seven recommended steps for developing a tribal mitigation plan. It begins with an overview of the planning process, then reviews each step of the process in more detail. Finally, the tribal Handbook provides considerations for how to implement the mitigation plan, advance mitigation activities, and incorporate risk reduction into other tribal plans and programs. Appendices with resources and worksheets are also included. Throughout this document, underlined text indicates a link to an online resource. The full URLs are included in Appendix A.

To illustrate approaches for developing the plan and the connections between the steps in the process, this handbook uses a fictional tribal government and planning area, the Roaring River Indian Community. This fictional Tribal Nation is used for illustration purposes only. These are brief narratives to show what sections of a new tribal plan might look like. The Roaring River Indian Community examples are not comprehensive. Actual plans should include additional detail to fully capture your history, culture, hazards, and mitigation efforts. Your Regional mitigation planner or Regional Tribal Liaison may be able to connect you to examples or successes from other Tribal Nations.

The Roaring River Indian Community is fictional and used for illustration purposes only. Actual plans require additional detail.

Image: FEMA / Jonathan Steinberg

WHY DEVELOP A TRIBAL MITIGATION PLAN?

Mitigation planning builds partnerships, maximizing opportunities to share information and resources toward achieving disaster resilience goals.

The planning process itself can expand the resources you have available to reduce risk, whether it is a structural mitigation project, enacting an ordinance or building code, or preserving the natural functions of open spaces. It can help you leverage a wide range of resources and fully use FEMA's funding programs.

A FEMA-approved tribal mitigation plan is a condition of receiving certain kinds of non-emergency disaster assistance grants, including Public Assistance permanent work and Hazard Mitigation Assistance, which includes the Hazard Mitigation Grant Program. Tribal Nations with a FEMA-approved hazard mitigation plan are positioned to be more resilient because the planning process helps them consider the hazards that may occur and how to proactively address their impacts.

Under the Sandy Recovery Improvement Act of 2013, federally-recognized Tribal Nations could obtain their own major disaster declaration for the first time, enabling them to apply to FEMA for disaster assistance independent of the state obtaining a declaration. To seek a declaration directly from FEMA, Tribal Nations must provide a description of the resources used to alleviate the emergency and must describe other federal agency efforts and resources used in response to the emergency. Similar information is required in the hazard mitigation plan, including a description of pre- and post-disaster hazard management policies, programs, and capabilities to mitigate hazards, and a discussion of the funding sources available for hazard mitigation. For more information, review the Tribal Declarations Pilot Guidance.

Having a hazard mitigation plan helps you prepare before a disaster and positions you to recover more quickly after a disaster because the hazards, capabilities, and mitigation actions are documented and ready to be acted on.

PLANNING PROCESS

Once you have decided to develop a mitigation plan, it's time to set up the planning process and get started. The foundation of all mitigation plans is an inclusive, well-documented planning process with community buy-in. A successful planning process brings together your members and other partners to discuss your community's experience with natural hazards and how to meet your risk reduction needs. It should be designed with your traditions, culture, and government in mind.

Before you begin the planning process, you need to make some decisions about how you will organize the plan and gather resources.

Choosing Your Approach

The mitigation planning requirements allow choices in how to organize the planning process. You can develop a plan independently or participate in a multi-jurisdictional plan, either with other Tribal Nations or with one or more local governments.

Each of these approaches has some benefits and challenges. Single jurisdictional plans offer more control and can concentrate available resources on your specific needs and solutions. You get to set the agenda, lead the process, and bring more of your partners into the process. Single jurisdictional plans can be tailored for both large and small Tribal Nations and can improve internal coordination and communication.

Multi-jurisdictional plans can be especially helpful when the participating jurisdictions face similar hazard risks, have a similar governance structure or authorities, have similar needs, or have worked together in the past. Working with others can help you develop a holistic mitigation strategy. It can also save time and money across the participating jurisdictions because you are working together.

On the other hand, multi-jurisdictional plans require you to give up some individual control over the planning process. Coordination can be complicated, especially if you haven't worked together previously. Multi-jurisdictional plans are also typically larger documents that must still include specific information on each jurisdiction's hazards, capabilities, and risk reduction activities. Large isn't bad, but it does often require more organization.

PLANNING TO PLAN

Planning to plan sounds funny, but it is important for the plan's leaders to sit down and think through the planning process early. The decisions you make now, before you start, will guide you throughout the whole planning process! Considering the planning area, partners, meetings, and how to communicate in the beginning will make the rest of the process easier. Decide how to document the planning process so you have a complete record of it for later (see p. 46). Remember, the mitigation planning regulations discuss what information has to be in the plan, but you have flexibility and options on how you meet the requirements.

USE WORKSHEET 1:
Planning Team to help you get started on building your planning team.

Building the Planning Team

After you determine if you will participate in a single or multi-jurisdictional plan, it is time to build the planning team. The planning team should consist of those who have an interest in the mitigation strategy and those who could provide tools, resources, and data. When building the planning team, start with existing committees, if possible, especially groups who have particular interests that are impacted by land use, transportation, environmental management, economic development, or housing. Before you begin the planning process, you need to make some decisions about how you will organize the plan and gather resources.

WHO SHOULD BE INCLUDED IN THE PROCESS?

- **Tribal officials, elders and decision-makers** –These individuals may be your department or office heads but may also include elected officials. The important point is to bring together the people who have knowledge about the people, buildings, natural areas, and cultural assets that have been affected by natural hazards and the people who have knowledge about Tribal programs, policies, and resources that keep the community safe. You are looking to engage the people who can help you assess your risk, understand your capabilities, and develop a realistic mitigation strategy.
- **Business leaders** – Economic resiliency helps to drive a community's recovery after a disaster. Bringing business leaders to the table for mitigation planning can give them a voice in developing strategies to avoid some of the losses caused by disasters.
- **Regional, State, and Federal agencies** – A wide range of agencies at higher levels of government can provide resources for data and technical information, as well as financial assistance. These agencies may have programs that complement your mitigation strategies.
- **Neighboring communities** – Natural events rarely end at jurisdictional boundaries. Inviting neighboring Tribal Nations or local communities to participate can open the door to collaboration around reducing natural hazard risk.
- **Cultural partners** – Cultural and sacred areas often have unique mitigation needs. For example, a historic building or site may require special protection. Partners who keep the knowledge associated with cultural and sacred areas can provide important context for these sites, whether the partners are institutions or individuals. They may also have valuable records of historic natural disaster events, particularly for floods, fires, and earthquakes.
- **Educational institutions** – Like other public agencies, academic institutions may have resources to assist in planning efforts. Many colleges and universities have data on natural hazards, including Geographic Information System mapping and analysis or research on related topics. By including these institutions, you may benefit from their existing experience.
- **Nonprofits** – These groups often act as advocates for citizens and communities, making them an important part of the public outreach process. Some nonprofit organizations, like the Red Cross, are also engaged in disaster preparedness.

DECISION-MAKING

The Planning Team is responsible for making decisions throughout the mitigation planning process. It is up to the team to determine the logistics, timing, and milestones of the planning project, as well as the hazards that will be included. From there, the Planning Team will be responsible for developing the mitigation strategy, which will lay out how the identified hazards will be mitigated.

The Planning Team will also need to come up with a maintenance schedule for the mitigation plan. Typically, an agency or individual will be identified to keep track of the plan during its life cycle, making sure that it remains up to date and relevant. This is often a tribal administrator or director, planner, or emergency manager.

THE ROLE OF ELECTED OFFICIALS

Elected tribal officials have the responsibility to protect health, safety, and welfare, and are usually the body that will adopt the mitigation plan. It is important to keep your elected officials informed about the planning process early and continue to keep them updated. This will build and maintain support for the plan over its approval period.

SCHEDULING

At the first planning meeting, set a schedule for the duration of the project. By setting dates for regular check-ins and future meetings, you can help keep the project on track. You can also identify existing meetings that planning team members attend and include the ones that could support hazard mitigation on the schedule. Including these meetings builds interconnections and can support internal coordination and outreach. Make sure that all parties involved in the process know their roles, responsibilities, and deadlines. Be sure to provide clear milestones to keep plan development on track. The schedule should include:

- **Planning team meetings** – These can be working sessions or opportunities to review developed content, but it's important to keep the planning team working together to build the plan.
- **Partner and public engagement events** – You can go to your partners and the public, or they can come to you. Remember that you must provide opportunities for participation in the planning process while the plan is being developed and prior to plan approval.

Another aspect of the schedule is the review period(s). To maintain continuous grant eligibility, build in time for FEMA's review of the plan before adoption.

ENHANCED TRIBAL MITIGATION PLANS

This handbook focuses on helping you meet the standard mitigation planning requirements. However, if you have ongoing efforts to proactively implement a comprehensive mitigation program may want to pursue enhanced status with an enhanced tribal mitigation plan. Enhanced status results in eligibility for increased Hazard Mitigation Grant Program funding. Enhanced tribal plans must meet the standard plan requirements and demonstrate integrated planning, strong mitigation capabilities, and thorough grants management performance.

Additional information about enhanced plan requirements is found in Section 3 of the Tribal Mitigation Plan Review Guide. If you are interested in pursuing enhanced status, contact your FEMA Regional planner(s) for assistance.

Engaging the Public

One of the core principles of planning is giving the public the opportunity to participate in developing the plan. Public engagement helps make sure the plan reflects community values, community experience with natural disasters, and community input on potential projects. Make sure to define the public for the mitigation plan. "Public" may mean everyone living or working within the planning area, including those who are not tribal members, or it may mean only tribal members.

HOW DO I ENGAGE THE PUBLIC?

Giving the public an opportunity to be involved in the plan can come in many forms. For example, it can be as small as including information about upcoming mitigation meetings in a newsletter, or something larger, like a booth at a community gathering. Think about where and when you come together and how the public gets information as you build your engagements. Regardless of how it is done, it is crucial to give the public a genuine opportunity to participate in the mitigation planning process. After all, the plan is intended to protect their lives and property, and they may have ideas on how to do that.

Gathering Data, Plans, Reports and Studies

Existing plans and data resources can lay the foundation and provide the basis for discussion and decisions during the mitigation planning process. Before writing the plan, it is helpful to understand what information you at your disposal. Plans work best when they use a combination of data sources, including tribal, local, state, and federal. Each resource has its own strengths that can bring something to the plan.

- **Tribal** – The plan is yours. Specific, localized data provides the most relevant information for the plan. It also tends to be the most accurate in terms of what is happening on the ground. Tribal plans such as Land Use Plans, Emergency Operations Plans, or Comprehensive Plans are common sources of information.
- **County or Local** – It can be helpful to review data used in the mitigation plan(s) of adjacent communities, especially if you share the same hazards.
- **State** – Each state has its own catalogue of resources and data that can benefit the planning process. State mitigation planning efforts can provide background information as you organize your own planning efforts.
- **Federal** – Data available at the federal level can give context to how natural hazard events fit into the larger picture. For example, if there was substantial wind damage as the result of a storm, federally provided information may point to a particularly severe event that occurred. Federal resources are also available to act as guidance for writing your plan. For example, if your Tribal Nation is a member of the National Flood Insurance Program (NFIP) and your community has been mapped by FEMA, be sure to include the flood hazard data and your floodplain management information in the plan.

The data and information you collect and use can be both quantitative and qualitative. It is important that the data, plans, reports, and studies you use are accurate, current, and relevant. Your plan must describe how this information was used in the mitigation planning process, not just say that it was collected.

FEDERAL DATA SOURCES

There are many federal agencies that regularly collect high-quality data related to hazards and mitigation efforts. A partial list of these agencies includes:

- Environmental Protection Agency
- Federal Emergency Management Agency
- National Oceanic and Atmospheric Administration
- U.S. Army Corps of Engineers
- U.S. Census Bureau
- U.S. Department of Agriculture
- U.S. Geological Survey
- U.S. Forest Service
- Bureau of Land Management

Integrating the Mitigation Planning Process

You are likely already planning for and working on community development, infrastructure, and sustainability. In some places, these other planning efforts have the force of law, and create land use and development policies that must be included in all other decisions within the community. In others, they serve as guides for consideration but still are referenced heavily to help drive decisions.

Mitigation planning is another community process that helps you grow safely. The goal is for mitigation to be a routine consideration in your decision-making processes. To do this, consider what community development you already do and how the mitigation planning process can support and enhance those efforts. Also consider how you can coordinate with other FEMA programs and initiatives such as recovery planning, the Threat and Hazard Identification and Risk Assessment (THIRA), and the NFIP. It is important to think about and design opportunities to combine planning processes early because it is often hard to make substantial changes to the process once it is in motion.

Coordinating planning efforts can help you get more out of each plan and build support across many topics. By leveraging a range of plans and processes, you may be able to accomplish hazard mitigation and reduce risk in new and different ways.

Decision-makers who might not focus on hazard mitigation can benefit from learning about reducing risk, and the mitigation planning team benefits from learning about plans and decisions occurring in other parts of the community. Coordination can include talking to the leaders of other efforts and using information from other plans to help build the mitigation plan.

The intent of coordinating planning processes is to show how you leveraged any other planning activities or FEMA programs to accomplish hazard mitigation and reduce risk. Here are some examples of the kinds of planning efforts and FEMA initiatives that can be coordinated, along with their opportunities:

PLANNING EFFORTS, INITIATIVES, AND PROGRAMS	COORDINATION OPPORTUNITIES
COMPREHENSIVE, LAND USE, MASTER, OR GENERAL DEVELOPMENT PLAN The Comprehensive Plan guides the future land use and development strategy for a community. It is a vision-oriented document that sets out goals, objectives, and policies to guide community growth.	The comprehensive plan is often the central plan for a community, and land use programs are built upon it. The comprehensive plan may have established public involvement functions that can be used to publicize the mitigation plan and get feedback. In addition, if the comprehensive plan identifies policies related to reducing the impacts of hazards, you want to capture those in the mitigation strategy of your plan. This planning effort (and many of the others below) may also have data or insights that can be used in the mitigation plan, preventing the planning team from duplicating work that is already complete.
CAPITAL IMPROVEMENT PLAN The Capital Improvement Plan is the prioritized list of all capital projects, usually with an emphasis on infrastructure and community facilities. It usually also includes the associated budget.	The mitigation activities and projects you develop for your hazard mitigation plan are often capital improvements. Look at the Capital Improvement Plan's list of projects together with the risk assessment and mitigation strategy to see if any capital investments appear on both lists. Doing this can help inform investments and guide them to safer places.
ECONOMIC DEVELOPMENT STRATEGY The Economic Development Strategy helps create and maintain a vibrant economy by guiding the economic growth and development.	By coordinating economic development and hazard mitigation, you can look to grow the economy in places less vulnerable to hazards and to increase disaster resistance in the places most essential for the economy. Investments in mitigation can be important to the business community since they can reduce downtime and lost income during disaster events.
LONG-RANGE TRANSPORTATION PLAN Long-Range Transportation Plans are usually 20-year vision documents that help a community schedule and prioritize transportation projects.	Like the Capital Improvement Plan, the Long-Range Transportation Plan usually includes planned investments in transportation. Look at the planned transportation investments with the risk assessment and mitigation strategy to avoid building infrastructure that may be damaged during a hazard event.
INDIAN HOUSING PLAN The Indian Housing Plan is an annual prerequisite to receive the Indian Housing Block Grant from the Department of Housing and Urban Development. It covers the housing activities you plan to undertake.	The Indian Housing Plan includes planned housing activities for the coming year. The mitigation plan can consider how any planned housing projects can be made more disaster-resistant, both in location and construction type.

PLANNING EFFORTS, INITIATIVES, AND PROGRAMS (CONT'D)	COORDINATION OPPORTUNITIES
EMERGENCY OPERATIONS PLAN The Emergency Operations Plan governs how you will respond to an emergency or disaster event.	While the Emergency Operations Plan focuses on the response to an emergency or disaster event, it also often outlines hazards or kinds of events that are of concern. This can be a starting point for your risk assessment. In addition, those involved in developing the Emergency Operations Plan are usually already well-versed in your hazards and vulnerabilities. That knowledge can make a better risk assessment and can identify where mitigation is needed. Working with the emergency manager and Tribal Emergency Response Team can also make sure that mitigation is a part of post-disaster efforts.
PRE-DISASTER RECOVERY PLAN Planning for recovery before a disaster ensures that tribal communities can act quickly to identify recovery leadership, meet the needs of affected community members, restore the well-being of tribal members and households, position themselves to meet future needs, and be more resilient by being able to recover quickly.	These plans work well with a mitigation plan to help you take advantage of the option to request disaster declaration assistance directly from FEMA. Like in a mitigation plan, the recovery plan includes discussions on the priorities and strategies related to reducing the impact of disasters. If you already have a recovery plan, you can build on its public involvement and potentially use its identification of partners and resources in the mitigation planning process. If you do not have one, you can use the people, data, and activities in the mitigation plan to develop it.
THIRA This is a three-step risk assessment process that helps communities understand their risks and determine the level of capability they need to address them. Completing this assessment is a prerequisite for certain kinds of FEMA preparedness grants.	The THIRA process helps you answer three questions: • What threats and hazards can affect us? • If they occurred, what impact would they have? • What capabilities should we have to lessen the impacts? The answers to these questions are also some of the required components of the mitigation plan: identifying hazards, describing vulnerabilities and impact, and assessing capabilities. If you already have or is working on a THIRA, the information can be used in both processes. The results of the THIRA can also show where you may want to concentrate mitigation and capability-building efforts. The same people involved in the THIRA will have valuable knowledge for the mitigation plan.
SECTION 404 AND 406 OF THE STAFFORD ACT MITIGATION PROGRAMS Section 404 hazard mitigation provides funding to reduce long-term risk to people and property from natural hazards such as elevating or retrofitting homes, acquiring properties for open space use, or wildfire management. Section 406 hazard mitigation provides funding to reduce risk from future damage in conjunction with disaster-related repairs. It is funded under the Public Assistance program.	After a disaster, these programs help prevent future damage to facilities. If you have used Section 404 or Section 406 mitigation, this capability should be noted in the mitigation plan. Any proposed or in-progress projects can be considered for inclusion in the mitigation strategy. Also, completed 404 and 406 mitigation projects can be included in the plan as efforts that reduce the impact of hazards.

PLANNING EFFORTS, INITIATIVES, AND PROGRAMS (CONT'D)	COORDINATION OPPORTUNITIES
RISK MAPPING, ASSESSMENT, AND PLANNING (RISK MAP) Risk MAP provides flood maps and information, tools to assess flood risk, and planning and outreach support for states, Tribal Nations, and local governments to reduce their flood risk. Risk MAP develops the maps that are used by the NFIP for flood insurance purposes.	Risk MAP is a FEMA program that provides free, high-quality hazard data typically related to flood risk, but potentially addressing any natural hazard. The Risk MAP process includes numerous opportunities for you to learn about your hazard risks through extensive planning and outreach support. When Risk MAP data is available, it should be incorporated into tribal mitigation plans. The process could be coordinated with the tribal mitigation planning process to capitalize on the data, training, and technical assistance available from FEMA.
NFIP The NFIP is a FEMA program that aims to reduce the impact of flooding on private and public structures. It does so by offering affordable flood insurance to property owners, renters, and businesses, and by encouraging adoption and enforcement of local floodplain management regulations.	Participation in the NFIP allows access to FEMA technical assistance and support for flood insurance outreach.

There may also be opportunities to integrate the mitigation plan with programs from other agencies or projects, like health organizations, the U.S. Environmental Protection Agency, the Department of Housing and Urban Development, or the Bureau of Indian Affairs. Not every planning process can be coordinated, and every Tribal Nation is different, so work within your existing governance structure and be practical with your efforts. You can always work with your FEMA Regional Tribal Liaison and Mitigation Planner(s) if you need advice about which planning processes to coordinate and how to do it.

PLAN DEVELOPMENT STEPS

The previous section described some important considerations for how you can arrange its planning process. Once those decisions are made, it is time to start developing the plan following the seven-step process outlined here. For each step, the Tribal Handbook describes what you should think about, what you need to document, and references worksheets to help you complete each step.

Remember! Even after your plan is approved, the planning process continues through implementation of your mitigation strategy. In addition, your plan must be updated every five years to maintain eligibility for certain FEMA grants.

1 Describe your community.

Describe the planning area, tribal assets, and any of your unique characteristics.

2 Identify your hazards.

FIgure out what natural hazards could occur in your planning area.

3 Explain impacts that hazards can have on the community.

Describe what the natural hazards could do to your people, property, and land and determine the biggest hazard concerns.

4 Review your current capability to mitigate the impacts.

Inventory your plans, policies, and programs that could be used to protect your community.

5 Develop the strategy.

Keeping in mind your risks and your capabilities, identify your mitigation goals and actions.

6 Develop an action plan.

Prioritize your actions and develop the details to assist with implementation.

7 Keep track of progress.

Observe and record progress in implementing your mitigation program using a defined method and schedule.

STEP 1:
Describe your community

USE WORKSHEET 2: Asset Inventory to help you complete this step.

Start by describing the planning area, tribal assets, and your unique characteristics in a community profile.

The plan must include a description of the tribal planning area. This description area includes land upon which the tribal government is authorized to govern, develop, or regulate. In other words, what is the geographic area covered by the plan?

If you are working with other Tribal Nations or a county in a multi-jurisdictional plan, each plan participant must describe its respective geographic planning area(s).

The planning area is not just the land area, though. It should include a description of the people and property that you want to protect from the impacts of natural hazard events. Describing the tribal community is an important part of helping the plan's users understand the context. This section is a good place to include any unique characteristics of the population and landscape of the planning area that could factor into risk reduction decisions. For example, consider focusing on aspects of the geography and built environment that contribute to vulnerability, such as geology, land use, and development trends.

To that end, your plan should answer three main questions:

- What do you want to protect?
- Who do you want to protect?
- How do you operate?

WHAT DO YOU WANT TO PROTECT?

This answer is all about describing what aspects of the physical, built, and cultural environment you want to protect through hazard mitigation. Describe the planning area, including all tribal lands that may be reservation lands, noncontiguous land, and state and local jurisdictional boundaries. You may want to show jurisdictional boundaries, especially if your land is not contiguous. You should describe tribal lands that you maintains or have jurisdiction over that are beyond the reservation boundaries. You may also want to describe land uses and areas that are targeted for growth or future development. This is a great opportunity to use maps if you have or can create them. Maps should identify any incorporated communities within the planning area that are participating in your plan or participated in a separate local mitigation plan.

Beyond physical boundaries, describe what buildings, roads, and areas you want to protect from the impacts of hazard events. This often includes an inventory of structures, roads, bridges, and other infrastructure. It is helpful to identify not only the types of buildings (residential, commercial, industrial, institutional), but also the age of the building and any information on how it was constructed. Age and construction type matter when it comes to understanding how to protect buildings. If an asset is important to your community, address it in your plan, regardless of the location.

When thinking about infrastructure, it is important to note whether you own and maintain the roads and infrastructure. Knowing who you need to coordinate with to protect your infrastructure will help you later when you are developing mitigation strategies. It is also helpful to identify the structures on the reservation that provide essential community functions. Often, these essential or critical facilities include gathering spaces, schools, police and fire stations, healthcare facilities, and tribal offices. Your planning team should discuss which facilities are essential and critical to protect. For instance, consider what buildings are necessary for you to function and serve your population best.

You should consider what sacred and cultural sites, including important landscape features, may be vulnerable to hazards and are important to protect. FEMA recognizes that some sites have religious and cultural significance that would be vulnerable to looting if their location becomes known. You do not need to specifically identify or show these resources on maps or describe their location in publicly available plans. However, it is recommended that you consider their vulnerability to natural hazards and discuss ways to protect them from hazard events.

Cultural and sacred sites are often located in vulnerable areas and can be protected through mitigation. However, the information related to their location and value can remain private.

Finally, think about what aspects of your economy you want to make more resistant to shocks from natural disasters. This could include identifying major employers, primary industries, tourism sites, or commercial centers whose losses or inoperability would have severe impacts on your economy and your ability to recover from a disaster. There may be dependencies between your existing infrastructure (e.g., roads and utilities), and your economic resiliency; if there are, it can be helpful to note them.

The U.S. Census Bureau collects data for tribal populations and publishes specific population counts, estimates, and statistics via the My Tribal Area tool.

WHO DO YOU WANT TO PROTECT?

People are your most important asset. Describe the overall population of the tribal planning area and tribal membership. Identify concentrations of residents and employees to understand potential areas to target for mitigation. For example, if residences are clustered together, it may be important to protect that higher-density area.

You should also describe the people who may have unique needs during or after a disaster. This could include people living on the reservation that are most at risk based on their age, language, or physical abilities. These people may not be able to comfortably or safely access resources during a disaster. You should also consider any major or seasonal events that bring in visitors because they may be less familiar with the local environment and hazards and therefore less able to protect themselves during an event.

HOW DO YOU OPERATE?

The overall governance structure is important context to include in the hazard mitigation plan, because it establishes how the planning process is set up, how the plan is maintained, and what you have the authority to mitigate. Document whether there are districts within the reservation that have particular authorities or vulnerable assets that you do not manage (for example, utility or school districts). If there are, consider including a representative from each district on the planning team to capture their unique vulnerabilities and mitigation needs.

FICTIONAL ROARING RIVER INDIAN COMMUNITY PROFILE

The Roaring River Indian Community covers an area of about 1,200 square miles. There are over 5,000 enrolled members and about 2,300 non-tribal members living within the boundaries of the reservation. The population remains constant throughout the year with no seasonal shifts. Most of the members live five main villages. There are also scattered home sites across the community where approximately 500 people live.

The map below depicts part of the tribal planning area for illustrative purposes. The community's government center is the Village of Big Rock. The Tribal Council is made up of a representative from each village plus one at-large member. Approximately 1,800 people live in Big Rock, including in areas adjacent to Big Rock Creek. About 150 residents live in a housing complex for the elderly.

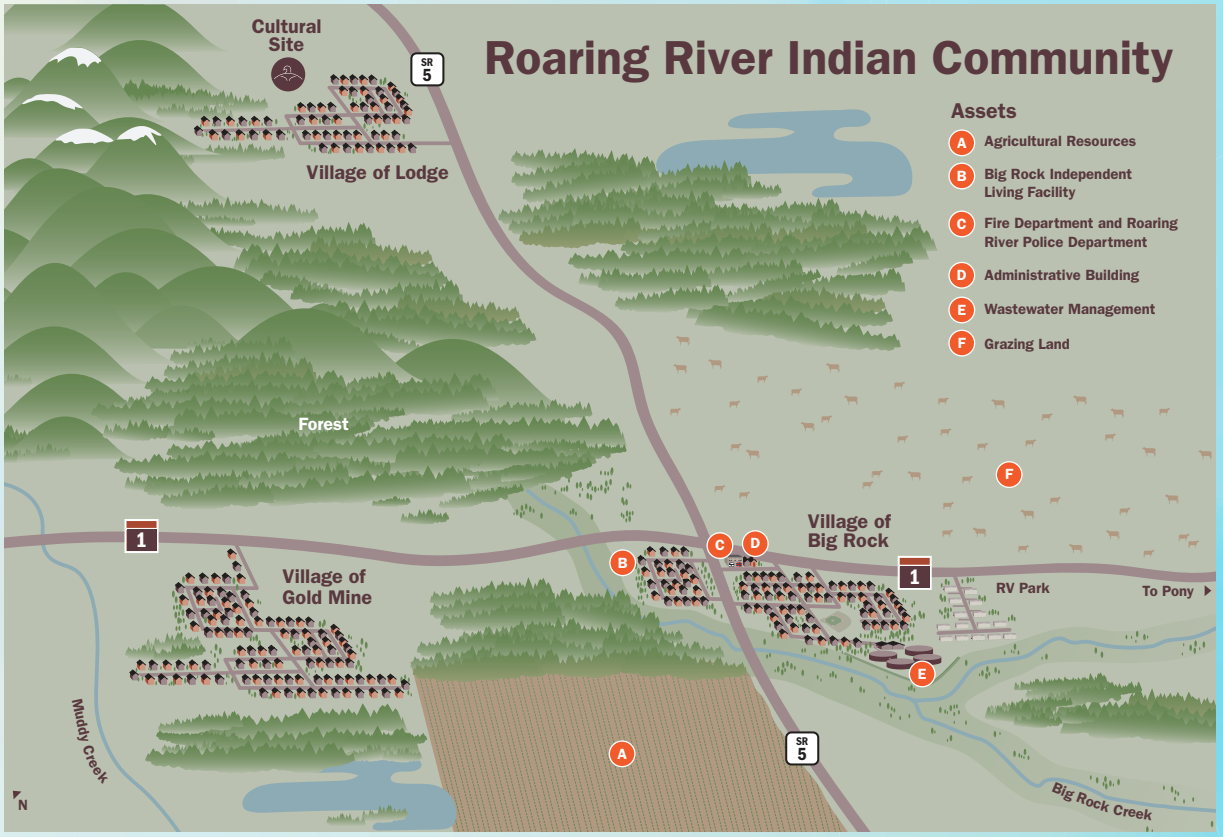
Gold Mine is the second major village (population: 1,000), near the western boundary of the reservation between Big Rock Creek and Muddy Creek. There are major agricultural areas between Gold Mine and Big Rock.

The area in the northeastern section of the community is considered sacred to the members and is an important cultural site. The geography of this area, around the Village of Lodge, is rolling hill country with tall hills, canyons, cliffs, and a forested area of heavy trees and vegetation. About 500 people live in and around the Village.

The area to the south and east is an agricultural area. The small Village of Pony is in this area and has a population of about 500. Grazing land is south of Pony toward the border of the reservation.

Most of the roads within the planning area are state- or county-owned and maintained. BIA Route 1, which connects Gold Mine and Big Rock, was constructed through the Indian Reservations Road Program and is maintained by Roaring River. Most critical facilities are located within the Village of Big Rock, including the Tribal Administrative Building. The Administrative Building houses the tribal government offices as well as the fire and police departments. The wastewater management facility is adjacent to Big Rock Creek.

The reservation has an abundance of natural resources that provide for employment, income, recreation, tourism, and plants for tribal ceremonies. Natural resource-based businesses have a substantial positive impact on the health of the local economy, including ranching, logging, and mining. The unemployment rate on the reservation is 30 percent, which is significantly higher than the state (7 percent). Agriculture is an important industry on the reservation; 78 percent of the farms are either individually or family owned. However, service industry jobs are growing as tourism to the area increases.



STEP 2:
Identify your hazards.

USE WORKSHEET 3: Hazard Identification and Risk Assessment to help you complete Steps 2 and 3.

Step 2 asks you to describe what is known about the natural hazards that occur in your mitigation planning area. Natural hazards are physical events that can cause difficulty or harm for individuals or communities. Common hazards include earthquakes, tornadoes, hurricanes (and the wind, storm surge, and other hazards they bring), floods, drought, wildfires, and winter storms. Identifying and describing these hazards will help your planning team understand what could happen, and what types of events you have an interest in mitigating.

Often, identifying hazards comes from a combination of sources. The data, reports, studies, and plans you collected when setting up the planning process will be helpful here, and so will tribal knowledge and tradition. Many tribal Nations begin by looking at what has happened in the past. Your collective experience is an excellent starting point. You may want to interview your planning team members, partners, or tribal elders to capture what kinds of events have occurred in the past. It can also be helpful to review nearby county or community plans and the state plan to get an idea of what hazards are possible in your planning area. You may want to use more quantitative data. For example, FEMA publishes data on Disaster Declarations for Tribal Nations, and you may want to review past weather-related events from online resources like the National Centers for Environmental Information.

After talking to tribal members, reviewing nearby plans, and looking at the data, you will identify the hazards that are important for you to mitigate. It is common to start by looking at the mitigation plan of an adjacent county and/or the state mitigation plan for hazards identified in the planning area. It is best to be as comprehensive as possible and include all commonly-recognized hazards in your plan.

The plan must describe the location, extent, previous occurrences, and future probability of each identified hazard.

LOCATION

Location focuses on the question: Where can each hazard occur? Some hazards occur in specific locations, like flooding occurring near streams or earthquakes occurring near fault lines. Other hazards, like wind storms and droughts, can occur across the planning area. This is a great place to include maps, if available. If you don't have access to digital geographic data or paper hazard location maps, location can be described in a narrative. You may also want to further describe the location in terms of high- versus low-risk areas, although you should define any ratings you decide to use.

USING RISK MAP DATA IN THE RISK ASSESSMENT

Risk MAP studies provide communities with detailed flood risk information via flood risk products. Communities and Tribal Nations can use flood risk data to better prioritize areas in need of mitigation assistance. This information can make a plan more usable for the communities while also helping meet some of the FEMA requirements. Flood Risk Products are used in mapping software and are especially powerful when combined with tribal data.

Using Flood Risk Products in Hazard Mitigation Plans provides additional details on how to use these products. If you need help accessing or using the data, contact your FEMA Region.

EXTENT

Extent is the strength or magnitude of each hazard. When describing the extent of the hazards you've identified, consider these questions: What is the range of how bad the event could be? What is the destructive strength of each hazard? How you describe extent may depend on the hazard. Some hazards have scientific scales that describe their extent, like the Enhanced Fujita Scale for tornadoes, water depth for flooding, and wind speed, while other hazards can be described in terms of how long the event will last or how quickly the event occurs. Like location, you can describe extent using a narrative, maps, or both.

When describing extent, remember that it is not the same as the impact of a hazard. Extent defines the characteristic of a hazard no matter when or where it occurs. Impact, on the other hand describes the effect of a hazard on people or property. For example, the extent for flooding might be the expected depth of floodwater, but the impact could be the number of buildings with water damage.

Some commonly used scientific scales to describe extent include the following:

Tornado: Enhanced Fujita Scale

Earthquake: Modified Mercalli Scale

Wind Storm: Beaufort Wind Scale

Hurricane: Saffir Simpson Scale

Drought: Palmer Drought Severity Index

Extreme Heat: Heat Index

Extreme Cold: Wind Chill

Wildfire: Condition Class

PREVIOUS OCCURRENCES

The description of previous occurrences centers on the question: When and where have the identified hazard events happened in the past? For each hazard identified, include the dates and locations, to the best of your knowledge. If events are not written down, but are part of your storytelling history, be sure to include them. If a hazard has happened many times in the past, it may be helpful to compile the events in a table.

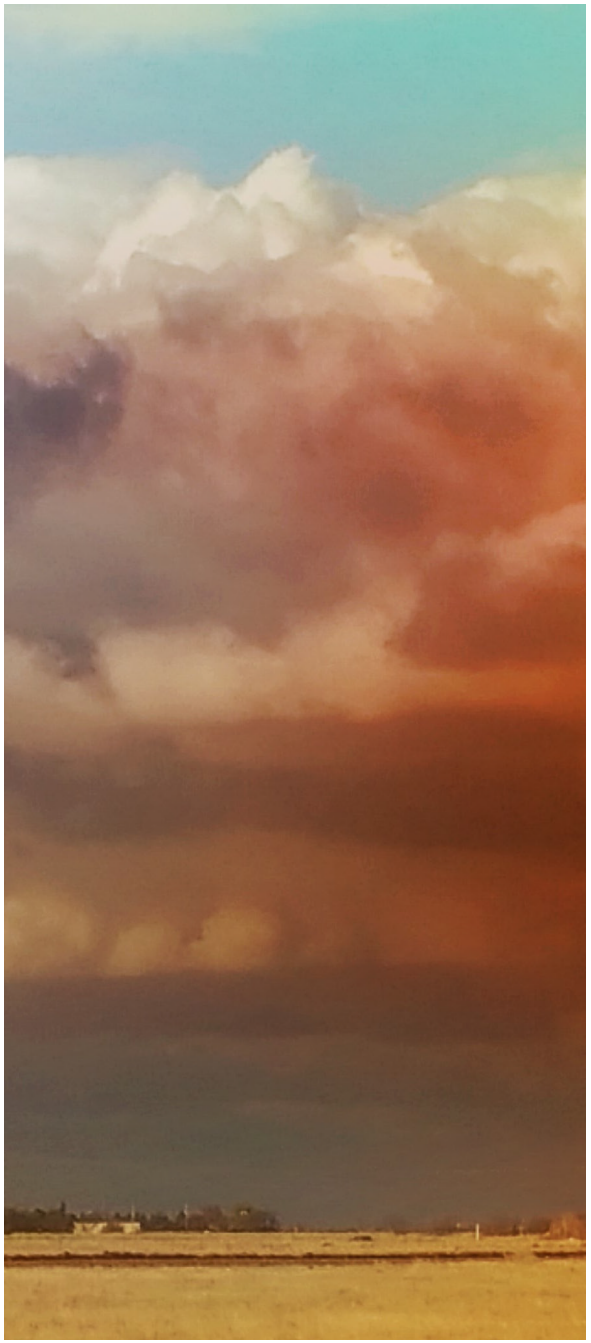
PROBABILITY OF FUTURE EVENTS

Probability is the likelihood of a hazard event happening in the future. When thinking about future probability, ask the following questions:

- How often do you expect these events to occur in the future?
- Will the location, extent, intensity, and/or frequency of the hazards identified change?

Probability can be defined in many ways, but it must account for long-term changes in weather patterns on the hazards you have identified. The challenges posed by more intense storms, frequent heavy precipitation, heat waves, drought, extreme flooding, and higher sea levels could significantly alter the type and magnitude of hazards affecting you in the future. Including future probability is important because the mitigation plan is a long-term strategy for reducing hazard-related losses.

You have a choice in the method or methods you use to estimate the probability and impact (see Step 3) of future hazard events. Often the exact method of incorporating future conditions will vary by hazard, and you can use a combination of methods in your risk assessment. For example, specific data may be available to project future sea level rise, but not wildfire. Here are some sample approaches you can take to account for changing future conditions.



Qualitative Approach

Describe how the probability of hazard events can change, based on tribal knowledge and community observations. This can include references to stories passed down from tribal elders and may include general descriptors for future probability, such as "unlikely" or "highly likely." General descriptors must be defined. For instance, "unlikely" could mean "not certain to occur," whereas "highly likely" could be defined as "expected to occur every year." Defining these descriptors maintains consistency between your hazard profiles and can help you prioritize what hazards are most important to address in your strategy.

Regional Data Approach

Use national or regional data, reports, and models to identify quantitative changes in frequency or probability. There are many reports and studies available that show trends on a large scale. This can help you get an idea on how large-scale changes can affect your tribal lands. Check with your Regional Tribal Liaison on which reports are the most up to date for you to reference.

Down-scaled Data Projections Approach

Similar to the Regional Data Approach, you can use more localized data and projections to identify trends, then describe probability based on your findings. It also allows your community to see how local conditions are projected to change over the coming decades. Down-scaling data may not always be the most accurate method. Combining these larger models with more localized data can help you describe the probability of each hazard. For example, if you find that there has been a decrease in overall precipitation, but large-scale models predict no change, your localized data provides context on how regional trends may affect you.

Historical Analysis Approach

Use historical analysis to indicate future events when there is no other data available. For example, an event that has occurred 20 times over the past 50 years has a 40-percent annual probability. When using this approach, consider if some events are happening more frequently in recent years than they did in the more distant past. Identify where there are gaps in the data and include filling those gaps in the mitigation strategy. This may indicate they are likely to occur more often in the future. Looking at the type, frequency, and extent of hazard events can add needed context to the discussion of probability.

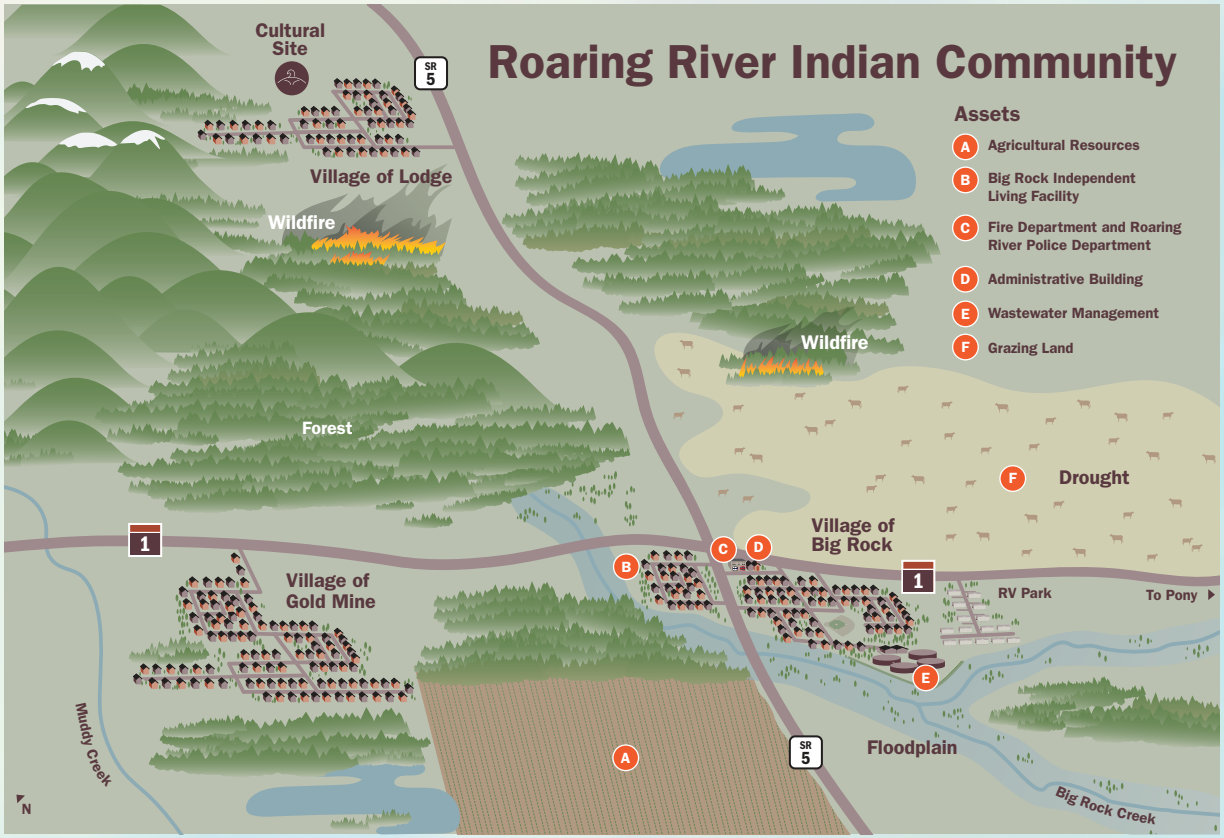
It is important to remember that the purpose of the risk assessment is to develop a list of key issues that will be addressed in your mitigation strategy.

LOOKING FOR HELP?

Consider reaching out to a nearby college or university to help you with your analysis. Many states also have specialists whose job it is to deliver services on atmospheric information at the state and local levels. While they may not know all the nuances of your Tribal Nation, they may be able to advise you on an appropriate approach. For more information, reach out to your FEMA Region for the best contact.

FICTIONAL ROARING RIVER INDIAN HAZARD IDENTIFICATION

The Roaring River Tribal Mitigation Planning Team (Planning Team) reviewed the history of natural hazard events, historical damages, and potential impacts on the community. From this analysis, they decided to include three hazards in the mitigation plan: flood, drought, and wildfire.



DROUGHT

Description

According to NOAA, drought is "a period of abnormally dry weather sufficiently long enough to cause a serious hydrological imbalance."

The abnormally long period of dry weather is known as meteorological drought. Hydrological drought occurs when low water supply becomes evident, especially in streams, reservoirs, and groundwater levels, usually after many months of meteorological drought. Agricultural drought happens when crops become affected. Droughts have the potential to significantly affect groundwater aquifers and springs. Undernourished wildlife and a higher probability of wildfire accompany drier conditions.

Location, Extent, and Previous Occurrences

Drought can affect the entire reservation at once, but the Planning Team is most concerned about the impacts of drought in the southeastern parts of the reservation, where the agricultural and grazing lands are located. Extended periods of reduced rainfall can have an impact on the grazing lands. The reservation relies on the production of food from these areas. A drought could affect the ability of these lands to produce the livestock and crops. Roaring River also relies on groundwater wells for some of its residential water supply. In times of drought, water may be scarce and conservation measures may be necessary.

Drought measurement is maintained by the United States Drought Monitor. This website is maintained by the University of Nebraska–Lincoln. It provides a drought severity scale to evaluate the drought status across the United States:

- D0: Abnormally Dry. Expect short-term dryness slowing planning, growth of crops, or pastures going into a drought. Coming out of a drought, expect continuing water deficits. Pastures or crops may not be fully recovered.
- D1: Moderate Drought. Expect some damage to crop and pastures. Streams, reservoirs, or wells will be low. This is the time to request voluntary water use restrictions.
- D2: Severe Drought. Crop or pasture losses are likely, and water shortages are common. Water restrictions are expected.
- D3: Extreme Drought. Expect major crop and pasture losses and widespread water shortages or restrictions.
- D4: Exceptional Drought. Expect widespread crop losses and shortages of water creating water emergencies.

Droughts have occurred periodically throughout the Roaring River Tribe's history. Minor droughts are common, occurring every few years. The most significant drought in recent history occurred in 1986, and it affected much of the United States. During this event, the Tribal Council enacted mandatory water conservation measures, and agricultural yields fell 5 percent. Other serious droughts occurred in 1957, 1979, and 1991. Most recently, in 2013 and 2014, Roaring River experienced two droughts that fell into the D2 – Severe Drought classification.

Probability

Two severe droughts have occurred over the past 15 years, but the Planning Team has observed that the number of droughts, even minor ones, appears to be increasing. The location of droughts is not projected to differ in the future. Precipitation events have also been more sporadic, with some being very intense over a short period of time, but have not been frequent enough to sustain crops. Because of this, the Planning Team felt that the probability of a drought happening in the future is likely.

FLOOD

Description

FEMA defines a flood as a general and temporary condition of partial or complete inundation of normally dry land areas from:

- The overflow of inland or tidal waters;
- The unusual and rapid accumulation or runoff of surface waters from any source; or
- Mudslides (i.e. mudflows) which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

Flooding can also result from a river or other water source overflowing its banks, heavy rains, rapid snowmelt, or breaches of levees or dams. Floods can occur quickly (flash flooding) or develop over time.

Location, Extent, and Previous Occurrences

Roaring River Indian Community received flood risk data through FEMA's Risk MAP program in 2014. The map above illustrates the 1%-annual-chance floodplains. Flooding is most common in the areas that border Big Rock Creek. Snowmelt from the higher elevations to the north and east can also cause flooding. Muddy Creek sometimes floods but detailed floodplain maps are not available.

According to the Risk MAP data, the extent of flooding will range from 1 to 7 feet, with the deepest flooding expected near the wastewater management facility on Big Rock Creek.

The table below lists recent flood events, along with each event's injuries and damages.

YEAR	EVENT TYPE	ESTIMATED MAGNITUDE	REPORTED DAMAGE
2015	Riverine Flood	Heavy rain caused flooding on Big Rock Creek, forcing road closures	Flood damage to homes and commercial and public facilities in Big Rock with estimated losses totaling $3 million
2008	Thunderstorm	Abnormally heavy precipitation caused flash flood in the area surrounding Lodge	Damage to hiking and camping area Damage to cultural sites (including medicinal herb gathering areas)
2002	Thunderstorms	Extended period of rain and flooding along Big Rock Creek and its tributaries	Damage to homes and commercial buildings in Big Rock estimated at $2 million Crop damages and loss of livestock estimated at $1.5 million
1997	Thunderstorms – Flash Flood	Heavy rain, thunderstorms caused a flash flood on Big Rock Creek.	The wastewater management facility was inoperable for one week. Nearly half of the homes along Big Rock Creek were damaged, and a few were destroyed.

Probability

Risk MAP provides flood risk data that considers past flood events and shows the area that will be inundated during a 10-, 25-, 50-, 100-, and 500-year flood event. The Flood Insurance Rate Map data shows the 100-year flood, which has a 1-in-100 chance of happening in any given year.

Roaring River has noticed heavier rainfall and snowfall events in recent years, even as droughts have become more frequent. Because the difference will be in the amount of rainfall during each event, the size of floodplains is expected to grow. In Roaring River, the severity of flooding is not projected to change, but with more storms, everyday flooding not related to Big Rock Creek may increase.

WILDFIRE

Wildfires, or wildland fires, are generally uncontrolled fires fueled almost exclusively by natural vegetation. They can be caused by nature but are most often caused by humans. Topography, fuel, and weather can be contributing factors in the growth and size of a wildfire. Wildfire can be a secondary hazard to drought.

Location, Extent, and Previous Occurrences

Parts of the Roaring River Indian Community are adjacent to mountains and hilly terrain, forested areas, and grasslands. Any of these areas can be susceptible to a wildfire given the right conditions. A prolonged drought can lead to vegetation drying out and becoming a better fuel source waiting for an ignition. The primary areas on the reservation that are at risk to wildfire are the grazing lands, which are grasslands at the southern edge, and the forested areas located in the northern section. In a normal year, with regular rainfall, these areas are not at significant risk. Their risk is tied to long periods of dryness.

Wildfire can be measured by acres burned or by using a rating system like the one developed by the National Wildfire Coordinating Group. They have identified seven fire classes (A–G) based on the number of acres burned:

Class A - one-fourth acre or less;

Class B - more than one-fourth acre, but less than 10 acres;

Class C - 10 acres or more, but less than 100 acres;

Class D - 100 acres or more, but less than 300 acres;

Class E - 300 acres or more, but less than 1,000 acres;

Class F - 1,000 acres or more, but less than 5,000 acres;

Class G - 5,000 acres or more.

Fire is inevitable given the physical environment, but Roaring River has been able to control and manage vegetation so that few fire ignitions become wildfires. However, Roaring River has had three wildfires as shown in the table below. The 2014 fire, a Class D, was the most destructive.

YEAR	ACRES BURNED	NWCG CATEGORY	$ DAMAGES
2017	85	Class C	$2,500
2016	9	Class B	$1,000
2014	115	Class D	$100,000

Probability

Three wildfires have occurred in the past 4 years. Paired with the increase in drought conditions, the probability of wildfire is expected to grow in the future. The location and extent of wildfires is not expected to change. Should Roaring River experience a wildfire in conjunction with drought conditions, it could be incredibly damaging for the reservation.

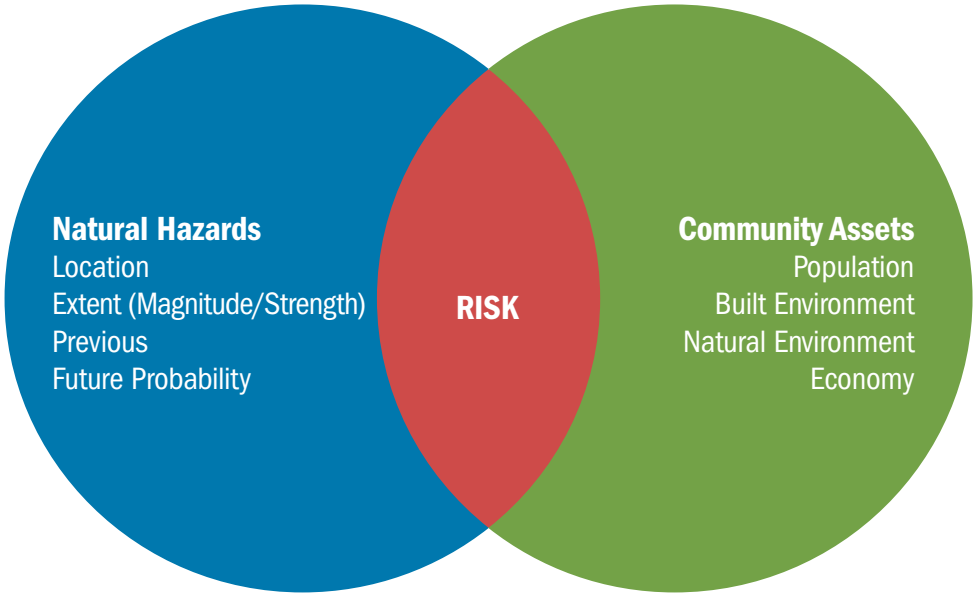
Image: FEMA / Michael Rieger

STEP 3:

Explain impacts that hazards can have on the community.

USE WORKSHEET 4: Problem Statement Worksheet to help you complete this step.

Once you have identified and described the kinds of hazards that may occur in your planning area, the next step is to explain the impacts each hazard can have on the community. "Impacts" are what is at risk and happens when the community assets you identified in Step 1 are in or near the hazard areas you identified in Step 2. This analysis will help you understand the greatest risks facing the planning area and decide what kinds of risk reduction activities to take in Steps 5 and 6, the mitigation strategy.



Note: Modified from the U.S. Geological Survey and Oregon Partnership for Disaster Resilience Models.

In describing impacts, consider the questions you answered in the community profile together with the following:

- Who could be affected the most by the hazard? Are there any groups of people who might be affected more than others? Often your elders, people with disabilities, children, or anyone needing support to move around or go about their day fall into this category.
- What roads, infrastructure, tribal facilities, systems, and/or buildings could be damaged or lost in a hazard event? Will any be unable to function, either for a short or a long period, because of a hazard? Consider the facilities that are essential, whether they are homes, schools, businesses, or administration buildings.
- Do you expect the hazard event to disrupt your economy or access to important lands like fisheries, timberlands, oil and gas holdings, casinos, or tourism sites?
- What natural, cultural, and sacred resources could be affected?
- Are there other capabilities or activities that have value to you that could be hurt by the hazard? Would any hazards affect your ability to function?

Impacts can be described using a few different methods, depending on your data, staff, and technical resources. Here are a few ways to describe them:

- **Start with the past.** You can explain impacts by looking at historic impacts and losses from past events to describe what may be possible in similar future events.
- **Overlay your assets and your hazards.** Usually done with maps and geographic information systems software, this may lead to a list of the number and type of assets in harm's way, and a dollar amount of potential losses for buildings, facilities, or infrastructure.
- **Ask yourself "what if?"** You can use hypothetical scenarios to describe the impacts of an event. This can be helpful for events that do not have a defined hazard area, or that are infrequent but serious, like tsunamis or large earthquakes.

No matter how you decide to describe impacts, remember to describe the impacts for each hazard in your plan.

HAZUS: A SCENARIO ANALYSIS TOOL

Hazus is a nationally applicable methodology for estimating potential losses from earthquakes, hurricane winds, tsunamis, and floods. Hazus uses geographic information systems technology to estimate physical, economic, and social impacts of disasters based on a scenario you define. Users can estimate potential losses using both out of the box information and by adding their own data to the tool.

Hazus is a free tool, but it requires a software license for ArcGIS. Training is available online and at the Emergency Management Institute. Your Regional Community Planner can also provide advice on using Hazus or getting help using the program to analyze risks and describe impacts.

Image: Chickasaw Nation / Sara Jones

Summarizing Vulnerabilities

After you have described the impacts of each hazard, you will have a lot of information about hazards and which structures, people, and facilities are at risk. This information should be summarized so that your planning team and tribal officials can understand the most significant risks. This overall summary identifies what is in harm's way, but it is more than a list of buildings or assets that are in areas where hazards may occur. Often it is also a list of key issues or problem statements that describe the greatest vulnerabilities you plan to mitigate. You can develop problem statements for each hazard or identify problems that apply to all hazards. If you are participating in a multi-jurisdictional plan, include an overall summary of vulnerability for each participating jurisdiction.

FICTIONAL ROARING RIVER IMPACT AND VULNERABILITY DISCUSSION

DROUGHT

Impacts

The reservation faces the potential for great social and economic impacts due to drought. Extended periods without rain cause Roaring River to use expensive methods of providing for the crops and the herd. Without significant resources, they rely on the natural precipitation cycle to spur growth of the crops, and to provide drinking water and grow grazing grasses. Without that rainfall, Roaring River is forced to pay for the water required to develop these food sources.

Drought does not have much impact on the physical assets or the essential facilities of the reservation.

Summary of Vulnerability: Problem Statements

Drought can occur anywhere, but it can be more intense in certain areas. Looking across the location, extent, and impacts, the Planning Team has identified two problem statements for drought vulnerabilities:

1) An underground aquifer level fluctuates due to frequent droughts, which limits availability of water for agricultural uses.
2) There is a need for additional housing, but this may stress future water resource availability.

FLOOD

Impacts

The reservation is susceptible to significant damage resulting from flooding events. Residential structures, as well as the wastewater management area, are located along Big Rock Creek. Excessive snowmelt coming down from the hilly country around Lodge can bring a lot of water moving past the populated areas of the reservation with little to no warning. The senior housing complex is located in an area of poor drainage that is prone to stormwater flooding. In general, flooding can do significant damage to residential areas and affect access to other parts of the reservation related to agricultural uses. State Route 5 is a main artery used to move people and products throughout the reservations, and should it be lost or underwater, there could be significant impacts.

Summary of Vulnerability: Problem Statements

Considering the location, extent, and impacts, the Planning Team has identified four problem statements related to flooding:

1) The wastewater management plant is in the floodplain. The facility has been losing power and flooding. This has the potential to cause pollution downstream.
2) Repetitive flooding of BIA Route 1 limits access to State Route 5, a major evacuation route. It also cuts off the two major population centers, where the critical and essential facilities are located.
3) The tribal land is subject to poor stormwater management that contributes to flash flooding, especially near the Big Rock Independent Living Facility. This causes residents to be without water for 20 days.
4) The wheat harvest in August/September is sensitive to water level fluctuations. Flooding in May/June can destroy the crop and has a major impact on the economy on the order of $2 million.

WILDFIRE

Impact

The highest potential impacts from wildfire are expected in the grazing land. Should a wildfire occur in the forest adjacent and spread to the grazing area, the impact to the livestock could be severe. Most of the residential units are located far enough away to avoid the direct impacts of a wildfire, but there is always the possibility of airborne embers traveling long distances and igniting other parts of the reservation. Smoke may also affect air quality.

Summary of Vulnerability: Problem Statements

Looking at the location, extent, and impacts of the wildfire hazard, the Planning Team has identified two problem statements:

1) Traditional burial grounds are in areas subject to wildland fires and Roaring River does not participate in the Firewise program.
2) Current building practices do not include fire-resistant materials for residential structures in high wildfire risk areas.

STEP 4:

Review your current capability to mitigate hazards.

USE WORKSHEET 5: Capability Assessment and Worksheet 6: NFIP Compliance Worksheet to help you complete this step.

Every Tribal Nation has a unique set of capabilities to accomplish mitigation. Reviewing capabilities helps you identify what resources are currently available to reduce losses and where there are gaps that you could fill through the planning process. The capability assessment is most beneficial when developing and reviewing mitigation strategies. The assessment can help understand how the strategies should be prioritized or implemented.

Step 4 guides you through assessing your capabilities, with a description and advice for four key types of capabilities:

- **Planning and Regulatory,**
- **Administrative and Technical,**
- **Financial, and**
- **Education and Outreach.**

Each type of capability may include laws, regulations, policies, programs, staff, funding, or cooperative agreements. They should be specific to your pre- and post-disaster policies, programs, and resources, but they may go beyond mitigation. Include a description of any capabilities you have that help make the planning area more resilient.

Planning and Regulatory

Planning and regulatory capabilities refer to the ordinances, policies, laws, plans, and programs that you use to guide physical development and growth on tribal lands. There are many kinds of mitigation capabilities that are expressed through plans, processes, and programs, such as building codes, land use plans, economic development strategies, and natural resource preservation programs. You may have already identified some of these capabilities when you looked at integration opportunities in the planning process.

Ask the following questions to identify your planning and regulatory capabilities:

- What kinds of plan have you completed?
- Are there any tribal laws or ordinances (e.g., not building in the floodplain, crop rotation, environmental protections, historic or cultural preservation) that mitigate hazards or support keeping people safe?
- What cultural practices or beliefs have been passed on through generations and relate to or translate into actions for development or non-development in high hazard areas?
- How do you protect your critical facilities such as police stations, fire stations, schools, and hospitals from natural hazards?
- How do you notify tribal members about emergencies and evacuations?

EVALUATING CAPABILITIES

Go beyond describing your capabilities and evaluate them. Describe how well your capabilities help you reduce risk. Do they actively support mitigation? Are any opposed to mitigation? Address the opportunities your capabilities present and be honest about any challenges that exist. You can use the planning process to strengthen your opportunities and lessen the impact of the challenges.

After you have developed the list of planning and regulatory capabilities, use any of the following questions that apply to dig deeper and describe how the capabilities can be used for hazard mitigation.

- Do you have a comprehensive or master plan for tribal lands? Does it include a future land use map that clearly identifies high hazard areas?
- Does the zoning ordinance discourage development or redevelopment within high hazard areas?
- Does the transportation plan limit access to high hazard areas and/or require multiple evacuation routes?
- Is safety explicitly included in the plan's growth and development policies?
- Do environmental polices maintain and restore important ecosystems?
- Are environmental systems that protect development from hazards identified and mapped?
- Does the capital improvement program include projects that will protect areas vulnerable to natural hazards?
- Is there a drainage plan to account for runoff from future development?
- Will the planned extension of existing facilities and services encourage development in areas vulnerable to natural hazards?
- Do you participate in the NFIP?

Administrative and Technical

Administrative and technical capabilities refer to the tribal government's staff, skills, and tools that can be used for mitigation planning and to implement specific mitigation actions. It also includes the ability to access, coordinate, and implement these resources effectively.

Ask the following questions to help determine your administrative and technical capabilities:

- Which staff are available to support the mitigation actions?
- Does the staff available have the capability and training to implement mitigation?
- Is there a need for outside expertise and resources to implement actions?
- What technical assistance is needed for you to implement actions?
- Is your staff trained to write and administer grants?
- Are there agreements in place with other tribal Nations or non-tribal agencies that provide regular administrative or technical assistance?
- Do you retain any outside consultants to support planning or other technical work?
- Do you work with any foundations or philanthropic organizations who are potential supporters of hazard mitigation?
- Do you have the physical resources available that could be used during implementation of mitigation actions identified in Task 6 (e.g., a bulldozer, backhoe, or heavy construction equipment)?

Financial

Financial capabilities refer to resources to fund mitigation actions. The costs associated with implementing mitigation activities vary. Some mitigation actions, such as building assessments or outreach efforts, require little to no costs other than staff time and current operating budgets. Others, like structural projects, will require significant investment and may require grants or outside assistance.

In the discussion of financial capabilities, the plan must describe your existing and potential funding sources for hazard mitigation activities. This means describing how you have funded mitigation in the past, even if you did not have a mitigation plan. Include a discussion of how you have used tribal, private, or federal non-FEMA funding and a description of how you have used FEMA funding.

The mitigation plan should demonstrate awareness of viable public and private funding sources for mitigation. Consider potential tribal revenue, federal funding, and other financial resources that could support implementing mitigation actions or projects. It can be helpful to start with the funding sources you have used in the past for mitigation actions, including projects.

Outreach and Education

Outreach and education capabilities are programs and methods that could be used to encourage risk reduction behavior change and communicate hazard-related information.

Ask the following questions to help determine your education and outreach capabilities:

- What venues do you use for outreach activities (e.g., gatherings, feasts, festivals, celebrations, meetings) to communicate with tribal members?
- How do you communicate new tribal policies, ordinances, or resolutions with tribal members (e.g., word of mouth, meetings, email)? Can those methods be used to communicate about mitigation?
- What new or additional outreach efforts would need to be considered to get the most public participation and support for mitigation?

FEMA MITIGATION FUNDING

FEMA is an important partner in funding hazard mitigation activities. There are three primary programs Tribal Nations can access for hazard mitigation:

Hazard Mitigation Assistance Grants fund mitigation plans and projects that reduce disaster losses and prevent loss of life and property from future damages. There are three grants under the Hazard Mitigation Assistance umbrella: the Hazard Mitigation Grant Program, the Flood Mitigation Assistance Program, and the Pre-Disaster Mitigation Program. The Hazard Mitigation Assistance Cost Share Guide explains the match requirements for each grant program. Each grant has its own tribal mitigation plan requirement. Visit the Plan Requirement page for more details.

Public Assistance Category C-G funds permanent work to repair damaged infrastructure and publicly owned buildings and facilities. Under this program, FEMA pays no more than 75 percent of the project cost and the Tribal Nation is responsible for the remaining 25 percent. A tribal mitigation plan is required to access Public Assistance Category C-G funds if the Tribal Nation wishes to apply directly to FEMA.

The Fire Management Assistance Grant Program provides grants for equipment, supplies, and personnel costs for the mitigation, management, and control of fires. Under this program, FEMA pays 75 percent of the project cost and the Tribal Nation is responsible for the remaining 25 percent.

FICTIONAL ROARING RIVER CAPABILITY ASSESSMENT

The Roaring River Tribe recognizes that a strong mitigation strategy incorporates both hazard risk and their capabilities. The Roaring River Planning Team has identified the planning and regulatory, administrative and technical, financial, and outreach capabilities below as available resources to implement the mitigation plan.

Planning and Regulatory

Roaring River's primary planning and regulatory capabilities are its zoning and floodplain regulations, both adopted in 2015. They are also growing their planning and regulatory capability by developing a capital improvement plan for tribal investments and a building code. There may be opportunities to integrate the findings of this mitigation plan into both of those mechanisms, as they are being developed at the same time. Roaring River also has a master plan and an economic development plan, but both are outdated and elements of those contradict the results of this mitigation plan. Overall, planning and regulatory capabilities are limited, but what is in place generally supports hazard mitigation, as shown below.

TOOL/PROGRAM	STATUS			EFFECT ON LOSS REDUCTION	COMMENTS
	IN PLACE	DATE ADOPTED OR UPDATED	UNDER DEVELOPMENT		
Hazard Mitigation Plan	-	2018	Under Development	Supports	Plan will support hazard mitigation projects
Emergency Operations Plan	In Place	2016	-	Supports	-
Evacuation Plan	-	-	-	N/A	-
Master Plan	In Place	2001	-	Hinders	The master plan is old and does not account for hazards in the proposed growth areas
NFIP	In Place	-	-	Supports	-
Floodplain Regulations	In Place	2015	-	Supports	Floodplain development is closely covered by this
Zoning Regulations	In Place	2015	-	Supports	Zoned floodplain areas also covered by floodplain regulations
Economic Development Plan	In Place	2008	-	Hinders	The existing plan suggests economic activity in known hazard areas
Capital Improvement Plan	-	-	Under Development	N/A	
Building Code	-	-	Under Development	N/A	No building code for 1–3 family residences
Community Wildfire Protection Plan	In Place	2017	-	Supports	Supported by regional planning agency and completed in partnership with surrounding communities

Administrative and Technical

For administrative and technical resources, the Planning Team focused on key personnel available to support reducing the impact of hazards. Roaring River has planners focused on land use and zoning, housing specialists that maintain existing residences and plan for new ones, and an emergency manager primarily focused on police and fire response. There is limited geographic information system and mapping expertise, and their grants management position has been vacant for more than 6 months. The full-time staff, while small, is technically capable, but training is needed to maintain their skills. Roaring River also has a cooperative agreement with the State Forestry Office specifically for wildfire related issues.

STAFF/PERSONNEL RESOURCES	YES	NO	DEPARTMENT / AGENCY	COMMENTS
Planners (with land use or land development knowledge)	X		Community Development Office	Small staff
Geographic Information Systems Experience		X	Community Development Office	One staff member has a basic knowledge of mapping software, but do not have a license for ArcGIS.
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)		X	N/A	Locally hired, no staff
Emergency Manager	X		Roaring River Emergency Management	One staff member, augmented by volunteers. They are in the process of standing up a Tribal Emergency Response Team.
Floodplain Manager	X		Roaring River Emergency Management	Emergency Manager is also a Certified Floodplain Manager.
Housing Specialists	X		Housing Authority	Staff is charged with the safety of housing on the reservation and could be helpful in outreach activities.
Grants Manager		X	Tribal Council	Position has been vacant for 6 months.

Financial

Currently, Roaring River does not have any sources of revenue earmarked for mitigation activities or projects, but there are several funding sources available that could be used to fund mitigation projects. Mitigation projects were funded in the past by the U.S. Department of Agriculture, and previous infrastructure improvements were funded by the annual operating budget. This plan was funded by the FEMA Pre-Disaster Mitigation grant program.

Roaring River is interested in pursuing FEMA funding for future mitigation projects. They anticipate that it will largely meet its local match using in-kind donations and staff time. For larger projects, Roaring River will explore using a portion of the operating budget as a cash match.

Education and Outreach

The Roaring River tribal government has a strong outreach program that has been used for other projects and can be leveraged to communicate the risk assessment and mitigation strategy. For example, the Housing Authority maintains information boards in its housing facilities, and it has a quarterly newsletter to residents that could be used to educate tribal members on hazards and mitigation.

Roaring River has numerous opportunities each month to come together to discuss pressing issues. The planning committee will add a recurring hazard mitigation agenda item to some of these meetings to help facilitate the education and outreach goals found within this plan. Word of mouth is also a powerful communication tool on the reservation; the community is small but close-knit.

FINANCIAL RESOURCES	AVAILABLE FUNDING SOURCE?	EXISTING OR POTENTIAL FUNDING?	COMMENTS
Tribal operating budget	Yes	Existing	The operating budget has funded infrastructure improvements that reduced vulnerabilities in the past.
Capital improvement programming	Yes	Potential	By committee appointed by Council; Capital improvement budget has limited resources that are allocated based on need.
Bonds	Yes	Potential	Council has authority to file for these finances if desired.
Partnering arrangements or intergovernmental agreements	Yes	Existing	By contract and committees appointed by Council.
Fees for utility services	No	N/A	
FEMA Hazard Mitigation Grant Funds	Yes	Potential	Funding is only available after a disaster, which has not occurred on the reservation to date. If a disaster occurs outside the reservation, the state may decide to make HMGP funds available statewide. Consider coordination and planning with the state and FEMA before a disaster.
FEMA Pre-Disaster Mitigation Funds	Yes	Existing	Pre-Disaster Mitigation funds were granted to fund the development of this mitigation plan. They are available annually.
U.S. Department of Agriculture Rural Development Programs	Yes	Existing	Previous improvements at the wastewater management plant were funded under this grant program. Mitigation was a small part of the awarded grant.
BIA Housing Improvement Program	Yes	Existing	Roaring River manages this program, but it has not been leveraged for mitigation previously.
U.S. Environmental Protection Agency Water Quality Grants	Yes	Potential	Roaring River has not used this funding in the past, but it is eligible.
Private donations and non-profit grants	Yes	Potential	Roaring River has not explored or used private funding in the past, but it is worth researching.

STEP 5:
Develop the strategy.

The previous steps looked at how things are, but Step 5 looks at what can be possible by developing a mitigation strategy. This step requires pulling together all the information previously gathered in the plan development process and building on that to create a valuable and actionable mitigation strategy.

Goals and actions make up the mitigation strategy. Goals are general guidelines and broad policy statements that explain what you want to achieve. Actions are the specific projects or tasks that will help you achieve your goals. Actions may include planning and regulations, structure and infrastructure projects, ways to protect the natural environment, and educational programs.

As you develop your mitigation strategy, remember that it must:

- **Represent a range of solutions; and**
- **Reduce risks to existing structures and new or planned structures.**

Setting Goals

The goals in the mitigation strategy must be consistent with the hazards and vulnerabilities summarized in Step 3. Write goal statements that express who and what you want to protect from natural hazard events.

There are four primary kinds of mitigation action to reduce long-term vulnerabilities:

1. Plans and regulations include government authorities, policies, or codes that encourage risk reduction, such as building codes and state planning regulations. This may also include planning studies.

2. Structure and infrastructure projects involve modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.

3. Natural systems protection projects minimize losses while also reserving or restoring the function of natural systems.

4. Education and awareness programs include long-term, sustained programs to inform and educate tribal members and stakeholders about hazards and mitigation options. This category could also include training.

Your plan may also include actions that will increase capabilities, encourage partnerships, or develop data, if gaps were identified in Steps 2, 3, and 4.

Considering Mitigation Actions

Given the goals, consider mitigation actions that address each problem statement identified in Step 3. Note that mitigation actions must be considered for every hazard described in the plan. You may decide not to prioritize and implement actions for every hazard (see Step 6), but you do need to consider options that could reduce the impacts of each hazard.

Keep in mind that mitigation actions must be considered for existing structures (e.g., relocation out of a flood zone) and for new or planned structures (e.g., adopting updated building codes). It is important to think about both existing and new structures because your plan is a long-term strategy to reduce disaster losses. There are mitigation options that alter existing buildings to make them safer, but safe buildings are those built to current building standards and outside hazard-prone areas.

In the end, though, choose the best solutions based on your capabilities. You can use ideas from the planning team, tribal experts, and the public. It is important to choose actions that are compatible with your existing capabilities, but it is also important to consider actions that are possible with access to funding.

This step results in the complete list of mitigation actions that you want to pursue in the short and long term.

The focus of this plan is on mitigation. It may be appropriate to include preparedness, response, and recovery actions in the plan, but only mitigation specific actions can go toward meeting FEMA mitigation planning requirements.

Image: FEMA / Jonathan Steinberg

FICTIONAL ROARING RIVER MITIGATION GOALS AND ACTION

Roaring River has developed a mitigation strategy based on the problem statements provided in the Risk Assessment. There are three hazard mitigation goals:

Goal 1: Make Roaring River assets more resistant to the effects of drought, flood, and wildfire.

Goal 2: Build Roaring River's mitigation capabilities to increase resilience.

Goal 3: Protect Roaring River's natural resources to protect members against disaster impacts.

Roaring River has considered the following mitigation actions and projects to address the hazard impacts and vulnerabilities.

DROUGHT

1) Aquifer level fluctuates due to frequent droughts. This limits the availability of water for agricultural uses.
   a. Potential Actions:
      i. Implement an aquifer storage and recovery project to improve the availability of groundwater during droughts.
      ii. Implement rainwater retention and other conservation methods such as line ditches, bioswales, natural infrastructure, and establish an education and awareness program.
2) There is a need for additional housing, but this may stress future water resource availability.
   a. Potential Actions:
      i. Implement an ordinance to reduce water use throughout the reservation.
      ii. Require new tribal housing and other facilities to use low-flow water fixtures.

FLOOD

1) The wastewater management plant is in the floodplain. The facility loses power during flooding. This has the potential to cause pollution downstream.
   a. Potential Actions:
      i. Build a dike around the facility to prevent inundation.
      ii. Relocate the facility.
2) Repetitive flooding of BIA Route 1 limits evacuation routes and cuts off the southern tribal population center from the north, where the critical and essential facilities are located.
   a. Potential Actions:
      i. Install a culvert to improve flow.
      ii. Elevate the road.
      iii. Create low-impact swales/bioswales within the right of way on either side of the road.
3) The tribal land is subject to poor stormwater management that contributes to flash flooding, causing 200 persons to be without water for 20 days.
   a. Potential Actions:
      i. Develop a stormwater management plan.
      ii. Install a gage on Big Rock Creek to track when water is rising so residents can be notified earlier.
4) The wheat harvest in August/September is sensitive to water level fluctuations. Flooding in May/June can destroy the crop and have a major impact on the economy on the order of$2 million.
   a. Potential Actions:
      i. Divert water around the fields.
      ii. Get a rain gauge to better understand rain levels and the need to pump.
      iii. Assess weather models to better predict flood levels and the need to pump.

WILDFIRE

1) Traditional burial grounds are in areas subject to wildland fires.
   a. Potential Actions:
      i. Create defensible space around the cultural site.
      ii. Stabilize land to prevent mudslide after fire.
      iii. Conduct a prescribed burn around the cultural site.
      iv. Use goats for vegetation management.
      v. Enroll in the Firewise program.
2) Current building practices do not include fire-resistant materials for residential structures in high wildfire risk areas.
   a. Potential Actions:
      i. Develop brochures on fire-resistant building materials and practices.
      ii. Revise building codes to require fire-resistant materials to be used on all new structures.
      iii. Retrofit tribal-owned structures.
      iv. Increase wildfire mitigation education through programs like Firewise.

STEP 6:
Develop an action plan.

USE WORKSHEET 8: Mitigation Action Implementation Worksheet to help you complete this step..

The action plan takes the list of mitigation actions from Step 5 and turns it into a blueprint of what you want to achieve over the next 5 years. Developing the action plan involves prioritizing actions and beginning to identify the details needed for implementing the mitigation actions.

Prioritization

Prioritizing the list of mitigation actions in the mitigation strategy is important because it illustrates the understanding that resources are limited and provides a systematic approach to deciding how best to use your resources. Prioritization can occur in many ways but should look at the opportunities and constraints of implementing a mitigation action. Consider the following questions to prioritize your action plan.

Life and Safety

- What impact will the project have on the safety of businesses, residents, and properties?
- Will the proposed action adversely affect any one segment of the population?
- Will the project proactively reduce natural hazard risk?

Administrative/Technical Assistance

- Is there sufficient staff currently to implement the project?
- Is training required for the staff to implement this project?

Project Cost or other Economic Factors

- What is the approximate cost of the project?
- How will the project be funded?

Support for Tribal Objectives

- Does the action advance other tribal objectives or plans, such as capital improvements, economic development, environmental quality, or open space preservation?

You can prioritize your mitigation actions using any criteria agreed upon by the planning team. Prioritization can change over time, so it is important to document the prioritization process in your plan. How do you currently prioritize community development projects?

How will we make it happen?

The prioritization process addressed what to do. The next step is to look at the "how." This step is key because you can have a great plan, but if it is not implemented, risk will not be reduced.

Thinking about details is important because mitigation actions or projects will probably be led by different departments, require different levels of effort, and draw from different staff and resources.

For each mitigation action, answer the following questions:

- Who is responsible for working on completing this action? This should include the lead position, department, or agency for each action. You do not need to name a specific person.
- How soon can you start working on it? What is the timeline for the action, and can it start right away? Can the action be achieved in a year or will it take 5 years to complete?
- How will you pay for it? Is it anticipated that Tribal funds will pay for the action or should you apply for a grant? You should consider all potential funding sources, not just those available from FEMA.

When developing the action plan, it is helpful to think about what information would be needed if a person that was not previously involved was put in charge of implementing the plan. A clear and thorough action plan increases the likelihood that it will be implemented.

FICTIONAL ROARING RIVER PRIORITIZATION AND MITIGATION ACTION PLAN

To narrow the list of potential mitigation actions to the ones Roaring River will target for implementation, the Planning Team used the following criteria to prioritize actions: impact on life safety and effectiveness at reducing losses, administrative ability to complete the project, project cost and available funding, and how well the actions worked with other tribal initiatives. The criteria were evenly weighted in the prioritization effort, and the projects with the highest scores were ranked high priority, then medium and low.

At the end of the prioritization, Roaring River determined that the following actions would be selected for implementation. The actions have been listed according to their priority by the team.

ACTION	HAZARD ADDRESSED	RESPONSIBLE PARTY(IES)	POTENTIAL COST	FUNDING SOURCE(S)	TIMELINE TO IMPLEMENT	PROJECT PRIORITY
Install larger culverts under Interstate 2 to improve waterflow downstream in the event of flooding.	Flooding	Tribal Department of Transportation	$50,000	FEMA HMA Grant Programs, BIA Grants, Tribal Funds	1–3 years	High
Implement an ordinance to reduce water use throughout the reservation.	Drought	Tribal Council	Staff Time and Resources	Tribal Funds	<1 year	Medium
Divert water around the wheat fields.	Flooding	Tribal Council	$1 million	U.S. Department of Agriculture and BIA funds	3–5 years	Medium
Relocate the wastewater management facility.	Flooding	Wastewater Management Utility	$2 million	FEMA HMA Grant Programs, Tribal funds	5+ years	Medium
Join the Firewise Program.	Wildfire	Tribal Safety Forces	Staff Time and Resources	Tribal Funds	1–3 years	Medium
Develop an aquifer storage and recovery system for the reservation.	Drought	Tribal Council	$1.5 million	FEMA HMA Grant Funds, Tribal Funds	3–5 years	Low
Require new tribal housing and other facilities to use low-flow water fixtures.	Drought	Tribal Council, Building Code Enforcement	Staff Time and Resources	Tribal Funds	3–5 years	Low
Install gage on Big Rock Creek to track when water is rising to flood levels.	Flooding	Tribal Council, U.S. Geological Survey, BIA	$35,000	U.S. Geological Survey, BIA	<1 year	Low
Use preventative measures to reduce potential for wildfires (goats, prescribed burns).	Wildfire	Tribal Fire Department Forces	$5,000	Tribal Funds	3–5 years	Low
Revise building codes to require fire-resistant materials to be used on all new structures.	Wildfire	Tribal Council	Staff Time and Resources	Tribal Funds	3–5 years	Low
Retrofit existing tribal structures with fire-resistant materials.	Wildfire	Tribal Council, Tribal Safety Forces	$20,000–$40,000	Tribal Funds, BIA Grants	3–5 years	Low

STEP 7:
Keep track of progress.

USE WORKSHEET 9:
Use Worksheets 9 and 10: Mitigation Action Progress Report and Plan Monitoring and Evaluation Form to help you complete this step.

Mitigation plans are meant to be living documents that change over time and should be actively maintained. It is important for your planning team to stay engaged during the 5-year life of the plan because the plan should be used to guide decision-making.
Once you move toward implementation, more tribal members may be involved, and various departments may assume responsibility for project and grants management. It is highly recommended throughout the 5-year planning cycle that your planning team convene regular meetings with those involved in implementing actions for monitoring and reporting purposes. It can also be helpful to brief the Tribal Council regularly on activities to maintain their interest and support for mitigation.

WHY DO I NEED TO MONITOR MY PLAN?

Having a process in place for monitoring will not only help keep you accountable and organized in terms of who is doing what, but will keep the planning team "in the know" for reporting to the Tribal Council and preparing for the next plan update.

How do we keep track of progress?

There are three important steps in the plan maintenance process: monitoring, evaluating, and updating. Each of these helps to provide an active review of the plan at different levels. Monitoring involves seeing if and how the plan has been implemented. Evaluating is a more in-depth examination of how effective it has been. Updating is a comprehensive review and revision of the mitigation plan every 5 years. Plan updates are required to maintain grant eligibility. Combined, these procedures help to:

- Ensure that mitigation is implemented as described by the plan;
- Provide the basis for a long-term mitigation program;
- Create permanent long-term monitoring of hazard-related activities;
- Integrate mitigation into existing tribal roles and other planning efforts; and
- Maintain community engagement and accountability in the plan's progress.

Your plan needs to include who is responsible for overseeing each step. As an example, a plan might state that a particular individual, commission, or district representative is responsible for each step of the plan maintenance cycle. The plan also needs to state how often these events will occur.

Monitoring progress

Plan monitoring refers to the overall process of tracking implementation. You should try to have regular meetings with those involved in implementing actions and convene meetings with the Tribal Council throughout the plan's 5-year lifecycle. The frequency of these meetings is up to you. They could be held quarterly, bi-annually, or annually – just make sure you document the anticipated frequency in your plan. Many Tribal Nations also hold monitoring meetings after a disaster, when they can use the plan to advance mitigation projects. Often, these meetings are most effective and likely to occur if they are built into existing meeting structures. This prevents creating additional meetings and supports weaving mitigation discussions into your regular way of conducting business.

If you are financing your mitigation project(s) through an external grant, the grant will most likely have processes and procedures in place for tracking and reporting progress. You can use these same reporting procedures for monitoring plan implementation as a whole. For example, if you are using FEMA funds for project financing, there is often a requirement for quarterly progress reports. Consider using those quarterly progress reports for monitoring progress.

When monitoring your plan, think about the following questions:

- What was accomplished during the reporting period?
- What obstacles, problems, or delays occurred?
- What can you do to reduce the obstacles and celebrate success during the next reporting period?

Your plan must describe the system you will use to track and implement the mitigation actions and projects identified in the mitigation strategy. This is more specific than general monitoring of the plan, as described above, and must include a schedule, department, office, or agency responsible for coordinating each project; the role of the departments, offices, or agencies identified as the "responsible party" in the mitigation strategy; and project closeout procedures.

Monitoring the plan actively will also position the plan to be a resource for you in the case of a disaster. Your planning team is encouraged to monitor the plan after a disaster event so that any information or knowledge gained during the disaster is captured. The mitigation strategy can and should be the starting point for identifying mitigation actions and projects you plan to pursue using post-disaster funding.

Evaluating Effectiveness

To evaluate the plan means to measure how effective it has been at meeting its stated purpose and goals. Consider the following questions:

- Are the goals and objectives of the plan still relevant?
- Are there adequate resources (funds, people, or programs) available to implement the plan?
- Are there any technical or political issues with implementation? If so, can they be addressed?
- What outcomes have occurred that can demonstrate progress? Were any outcomes different than you expected?

Evaluation may work best by creating a standard form that can be used from year to year that includes these and any other questions that measure how the plan is doing overall.

There is no required timeline for when evaluation must occur. However, regular evaluation sets your plan up for success and will be valuable when the plan is due to be updated. Many choose to do it annually, but it can happen at any point within the plan's lifecycle. Evaluation will help determine what mitigation goals have been accomplished, which ones require additional work, and what progress you have made on your mitigation actions. Your plan should describe how, when, and by whom the plan will be evaluated.

Your planning team should aim to present an annual report to the Tribal Council and relevant partners to maintain accountability and awareness and promote progress toward mitigation goals. The report can combine monitoring and evaluation together to summarize progress made, problems encountered, budget, and target completion date.

Updating the Plan

Update, review, and approval of a mitigation plan every 5 years is required to maintain eligibility for FEMA Hazard Mitigation Assistance grant programs. The first plan adopted will establish a baseline on which future plans will be built. The updated plan includes any new development or redevelopment, progress in mitigation efforts, and changes in priorities. This ensures that the risks, capabilities, and mitigation activities remain effective based on the most current information available. For additional information, see the Considerations for Plan Updates. Your plan must identify how, when, and by whom the plan will be updated.

Plan updates can also occur after a disaster event or alongside the development of a post-disaster recovery plan. After disaster events, risk awareness typically increases, which can also bring along with it additional support for mitigation programs and projects. This period can also be a valuable time to collect data and information to incorporate mitigation into the recovery process. Doing so can help increase your resilience to hazards in the future.

When considering the schedule and process for a plan update, don't forget to account for the time it will take to secure grant funding (if needed), contract for support services, and establish a reasonable, inclusive update process timeline. Also, keep in mind that plan review, adoption, and approval take time.

Keep Tribal Members and Partners Involved

Involving the tribal community as the plan grows and changes throughout its lifetime is important, as different people have different experiences and can provide information from various perspectives. Maintaining momentum throughout plan implementation will require regular outreach internally (e.g., tribal leaders and members), as well as external partners and interested parties (e.g., private businesses and partner agencies).

Each mitigation plan needs to include a discussion of how you plan to occasionally seek public participation throughout the life of the plan. This participation can be active, like presentations to tribal officials, school groups, or other partners, or passive, like posting about the plan on social media or websites or including information in newsletters.

To maintain momentum with tribal leaders and planning team members, one of the most effective methods for generating support and ensuring implementation is to integrate actions from the mitigation plan with other tribal initiatives or existing planning efforts. It can also be helpful to brief newly elected officials on tribal mitigation efforts when there are leadership changes.

FEMA and the American Planning Association have published a number of detailed resources that can help you integrate mitigation into other decisions. Check out the links below to learn more:

- Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for Community Officials (2013) provides practical guidance on how to incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns.
- Plan Integration: Linking Local Planning Efforts (2015) is a step by step guide developed to help communities not only analyze their local plans for existing integration, but also further improve those efforts, including interagency coordination.
- Hazard Mitigation: Integrating Best Practices into Planning (PAS 560) (2010) seeks to close the gap that exists between hazard mitigation planning and other local planning and regulatory land use processes.

Incorporating Mitigation into Tribal Plans, Capabilities, and Decisions

One of the best ways to implement your mitigation plan is to integrate aspects of it into other tribal planning efforts, capabilities, or decisions. Integrating your plan means that you are considering the potential impact of hazards and the power of mitigation to lessen impacts in regular decisions, planning, and investments. Incorporating your mitigation plan into other planning activities promotes consistency between plans and increases awareness of the mitigation strategy.

Your mitigation plan must describe the process you will use to integrate the mitigation plan's data, risk assessment, goals, and actions into other tribal processes that manage land use, development, and decision-making. A good starting point is to go back to the planning efforts, programs, and initiatives you coordinated as you set up the planning process. Think about which of them could use parts of the mitigation plan to more effectively manage hazard risk.

The table below provides some example planning mechanisms and the opportunities that may exist to better connect the mitigation plan to each one.

You should start identifying a process by looking at the capability assessment worksheet you completed in Step 4. Think about ways to bring the conversation of the impacts of natural events into those plans and programs. You should also consider the update timelines of those plans and programs, so that you have a good idea of when you have the best opportunity for integration.

PLANNING MECHANISM	OPPORTUNITY FOR INTEGRATION
Zoning Ordinance	• Include zones that limit development in areas you identified as facing hazard impacts. • Include requirements about keeping flood- or other hazard-prone areas as open space.
Building Code	• Include requirements for building design standards to withstand hazard events, such as elevating homes in the floodplain, fortifying roofs, or using earthquake-resistant materials.
Capital Improvement Plan, Long-Term Transportation Plan, and Housing Plan	• Include hazard vulnerabilities in the decision to invest in extending or building new roads and utilities. • Include prioritization or budgeting requirements that new community facilities be resistant to hazards.
Comprehensive, General, or Land Use Plan	• Review the risk assessment results and direct future growth into areas that are not likely to be damaged in a hazard event. • Include the mitigation plan goals in the future vision of the comprehensive plan.
Economic Development Strategy	• Review the hazard mitigation plan and guide private investment into areas that are safe from known hazards. • Incorporate the mitigation strategy's goals and actions to encourage a more resilient economy that can quickly recover from a disaster.

FICTIONAL ROARING RIVER PLAN MAINTENANCE

The Roaring River Hazard Mitigation Plan is a living document that will provide guidance for reducing the impacts of natural hazards for future generations. To make sure this plan is accurate and current, it will be monitored, evaluated, and updated over its life.

Monitoring, Evaluating, and Updating the Plan

The plan will be monitored by the Roaring River Planning Team, with the ultimate responsibility for plan maintenance falling to the lead community planner. Each year, the Planning Team will:

- Determine if the impacts of hazards described in the plan continue to be accurate, current, and relevant;
- Review the goals for relevance with current priorities; and
- Identify progress made on the mitigation strategy, including a description of any successes and challenges.

The plan will be monitored annually on the anniversary of plan adoptions and after any major disaster declaration.

The system used to monitor the progress of mitigation actions is as follows:

- The lead community planner will review progress on the implementation of mitigation actions at least annually.
- The Planning Team members will coordinate with their respective departments. When a department responsible for a mitigation action is not represented by a Planning Team member, the Planning Team will select a member to work with that department.
- Each department responsible for an action will provide updates in a timely manner to the Planning Team and will provide documentation of progress for incorporation into the plan. If appropriate, the Planning Team liaison will conduct a site visit.
- Projects will be closed out according to the specific requirements of the funding source. If the source is tribal funds or staff time, a closeout meeting will be held with the lead planner and/or the Planning Team to review the project in full and determine any opportunities to celebrate success.

Because the plan is a living document, Roaring River will evaluate its plan annually. The plan will not only be looked at for how far it has come along each year, but how effective it has been. This will help to inform if any changes are needed going forward. A review of the benefits (or avoided losses) of mitigation activities will be a part of this assessment.

The Roaring River Indian Community Hazard Mitigation Plan remains valid for 5 years. Approximately 18 months prior to expiration, the Planning Team will convene to review the plan, identify where updates are needed, and determine if Roaring River will need a grant to assist with the plan update. Ultimate responsibility for the plan update will rest with the lead community planner. Future updates to the tribal mitigation plan will account for any new hazard vulnerabilities, special circumstances, or new information that becomes available. It will also discuss changes in priorities and progress on mitigation actions.

Continued Public Involvement

Members of Roaring River will be invited to participate in all states of the plan maintenance process. The lead community planner will present on the status of the plan to the Tribal Council. The Planning Team will educate the broader Roaring River community annually at a community event. Any comments received will be logged and then addressed within the main document of the plan.

Plan Integration

Part of ensuring that the plan is current and useful to a community is integrating it into existing and future planning efforts. Each year before the annual plan maintenance meeting, the lead community planner will gather information on all planning mechanisms expected to be updated in the next year. Then, the Planning Team will determine into which plans it makes sense to incorporate the mitigation plan's goals and actions. The top priority plans for integration include the comprehensive plan, the economic development plan, and the transportation plan.

IMPLEMENTING THE PLAN

Planning is a continuous process and does not end once the plan is written. The next steps may be the most important of the whole planning process. How will your tribal community use the mitigation plan to achieve its goal of becoming a more resilient community?

Assurances and Adoption

After you are finished developing or updating your mitigation plan, it must be adopted by the Tribal Nation to meet FEMA planning requirements. This signals a commitment to move toward resilience, fulfill the mitigation goals, and allow responsible agencies to implement the plan. Adoption can take a few forms, including a tribal resolution, an executive order, a notice of action, or another official documentation of adoption allowed by tribal law.

You must also provide assurances that you understand and will comply with all applicable federal statutes and regulations in effect during the period for which you receive grant funding, and will amend the plan whenever necessary to reflect changes in tribal or federal law. Frequently, this is a simple statement that is included in the adoption resolution, but it can also be included somewhere in the body of the plan.

You must submit documentation of adoption to FEMA. You are not eligible for certain FEMA assistance, and your plan cannot be fully approved, until you have adopted the plan and sent documentation of adoption to FEMA and the Agency has issued an Approval Letter.

The Tribal Mitigation Plan Review Guide provides detailed procedures for plan review and approval. It is a good idea to keep the Planning Team and your partners informed throughout the review and approval process. In addition, remember to build time into your planning process for the review and approval procedures. FEMA typically has 45 days to review your plan, and there may be revisions needed before it can be approved.

CELEBRATE SUCCESS!

Now that the plan is adopted and approved, the work is just beginning. But first, it's time to celebrate! Publicize the adoption and approval of the plan. Consider getting the word out using multiple methods, such as:

- Post a notice on your website.
- Issue a press release on plan adoption and approval to your media outlets.
- Distribute notices of approval to stakeholders.
- Announce the first project(s) to be initiated.
- Propose a congratulatory resolution or achievement award for the planning team (or specific individuals) for their successful work and commitment to making your Tribal Nation safer.

These and similar steps are easy to complete, are inexpensive, and will keep the plan at the forefront of people's minds, helping to build momentum as you move into implementation.

Moving Mitigation Forward

After the plan is developed, implementation begins. Plan implementation begins at the time the plan is adopted. During implementation you will carry out the action items in your mitigation strategy and document your progress through a monitoring process and evaluation schedule.

But how do you implement the plan? Use the action plan developed in Step 6 as your primary guide for implementation. The mitigation action table contains the information you need to get started—descriptions of the prioritized actions, projected timelines, estimated costs, responsible departments, and potential funding sources.

Here are some recommendations for moving mitigation forward throughout the plan's life cycle and beyond:

Use the post-disaster recovery period. Tribal member support and political will to invest in reducing hazard risk may be at its highest after a disaster. This is often the period when the most funding may be available for mitigation, whether it is through FEMA's Hazard Mitigation Grant Program or Public Assistance programs. Having a strong mitigation plan can help you be better positioned to take advantage of resources and funding available after a disaster. Incorporating mitigation strategies into post-disaster recovery planning efforts reinforces the link between risk reduction and your resilience.

Focus on early wins. Demonstrating success and progress on the mitigation strategy quickly can go a long way in gaining support for the longer-term, more complex mitigation actions in your plan. Try to complete a few low-cost actions that can be implemented quickly, or a single high-priority project.

Encourage champions. Leadership support is often crucial for plan implementation. Consider how you will you keep the Tribal Council supportive of mitigation projects among many competing priorities. Think about how you will keep your community excited about the plan.

Maintain your engagement. To help make sure mitigation projects go forward, it may be necessary to continually engage leaders, colleagues, and tribal members on the benefits of mitigation. You may want to consider writing down some selling points for mitigation in general or the actions in the mitigation strategy. This can help you articulate why investing in mitigation is so important.

CONSIDERATIONS FOR PLAN UPDATES

Step 7 discussed the fact that your plan must describe how your hazard mitigation plan will be updated every 5 years to maintain eligibility for FEMA grants. But what should you be updating in 5 years?

The plan update overall is intended to be a refresh of the information in your plan to make sure that it is accurate, current, and relevant. That means that you will probably have to add or delete information throughout the plan. Here are some key questions to keep in mind as you update your plan.

Since conditions can change over time, it is important to capture these changes in the updated plan. However, if there were no changes, you can validate what was included in your previously adopted plan.

PLAN AREA	UPDATE CONSIDERATIONS
Planning Process	• Are you updating the plan with the same jurisdictions? • Do you plan to use the same process as you did previously? • Were there any procedures from the last planning process that worked well or could be changed for better outcomes? • Are there any new data sources available to help you update your plan?
Steps 2 & 3	• Have there been any new emergency or disaster events in your planning area? Were there impacts? These must be included in the plan. • Are there new hazards in your planning area that were not a concern previously?
Step 3	• Have there been any changes in development that would increase or decrease your risks? This could be new buildings in hazard areas, or it could be enacting a stronger building code that reduced your risks. Changes in development must be included in the plan. • Is the summary of vulnerability still valid? Consider developing new problem statements based on current conditions.
Step 4	• Are there any changes to staffing or contracts that could support mitigation planning and implementing the plan? • Have you adopted any new regulations, policies, or programs that could be incorporated into the plan?
Step 5	• Are there any changes in the political or social environment that would change your mitigation priorities? • Has disaster activity changed your mitigation priorities? This must be included in the plan.
Step 6	• What kind of progress have you made on your previous mitigation strategy? You must provide a status report on the progress of the existing mitigation actions and projects. Describe whether each action was completed, is still in progress, or was paused, and why. • Were mitigation actions implemented as planned? • Are there new actions or projects that should be considered for implementation? • Are there any new funding sources that could be used to implement mitigation?
Step 7	• Did the process established to track implementation work? • Did the public and partners stay engaged in wanting to implement mitigation actions?

THE IMPORTANCE OF DOCUMENTATION

To document the planning process means to provide evidence for how the tribal government developed the plan, who was involved, and what sources were used. While providing this sort of documentation is required, it is also a great idea because it serves as a permanent record that informs partners, the public, and tribal members of what occurred during the planning process. Having strong documentation will help, especially if there is a change in leadership on the planning team or in your governing body during the life of your plan.

One of the most important reasons to keep documentation of the plan is for the eventual plan update, although it also serves to back up the plan contents. As the plan is drafted and public meetings take place, resources from both internal and external sources will be used. In several years, once the update process has begun, it can be difficult to remember precisely where a certain piece of information came from or who was involved in the process. Having this information accessible in the plan itself will be useful during the next plan update by allowing you to easily go back and find what resources were used, and who provided feedback.

Some easy examples of documenting the planning process can be to provide meeting sign-in sheets that have the name and position of those who attended the meeting, or by providing meeting minutes. Meeting minutes are a great way to capture comments and concerns from your public in real time. For the purposes of data collection, adding a bibliography or works cited page can help to reduce or eliminate the need to search again for hard-to-find information.

To best incorporate documentation into the plan, think about not only what resources were used and who was involved, but how the information documented made a difference in the planning process.

CONCLUSION

The Tribal Mitigation Planning Handbook provides guidance on how to develop your tribal mitigation plan, demonstrating your commitment to reducing vulnerability. The Plan can serve as a decision-making guide as you commit resources for implementation. When completed, your plan will be a roadmap to reducing losses and lessening disaster impacts.

APPENDIX A: MITIGATION PLANNING RESOURCES

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APPENDIX B: SAMPLE PLANNING FRAMEWORK

This appendix is intended to give tribal mitigation planning teams ideas on how to structure the planning process and involve partners and the public. Both the suggested workshops and the suggested schedule should be used as a conceptual guide. Ultimately, tribal mitigation planning teams should build a planning process that meets their unique needs and is based on time and available resources.

Sample Meetings and Workshops

Partners and the public must be involved throughout the planning process. Often, tribal mitigation planning teams do this by holding a series of meetings and workshops. These events are important opportunities to share information, resources, and stories in addition to helping fulfill requirements. The framework presented below will help the planning team build relationships around risk reduction while collecting information needed for the plan. All meetings should include the planning team, composed of tribal members, tribal government entities, and partners.

WORKSHOP 1: KICKOFF

Workshop 1 formally kicks off the planning process. Its goal is to convene the planning team to share information capabilities, hazards, and resources.

Workshop Discussion Items:

- Plan vision and planning goals
- Planning process logistics and schedule
- Planning team participation expectations and roles and responsibilities
- Opportunities to coordinate with other planning processes
- Public Outreach ideas
- Other partners who should join the planning process
- Available plans, studies, data, and resources that can support the plan

Workshop Activities:

- Bring maps of the planning area and invite participants to share their knowledge and awareness of natural hazards. This could include marking the location of essential community facilities, vulnerable populations, important infrastructure, or cultural areas in need of protecting. It could also include asking participants to indicate where hazards have occurred in the past to help inform Steps 2 and 3 of the planning process.
- Introduce the Asset Inventory and the Capability Assessment Worksheets to the planning team. Introduce the NFIP Compliance Worksheet if you participate in the NFIP. Encourage team members to fill out the worksheets based on their expertise but give them time after the meeting to finish and return them.

Workshop Results:

- Preliminary list of hazards for consideration
- List of resources to use during the planning process
- List of public outreach opportunities

Workshop Homework *(to be completed no later than 2 weeks prior to next meeting)**:***

- Asset Inventory
- Capability Assessment
- NFIP Compliance Worksheet (if applicable)
- Share any planning documents, studies, reports and technical information that should be incorporated into the plan
- Finalize public outreach opportunities and insert into schedule

WORKSHOP 2: RISK ASSESSMENT AND IMPACTS

The goal of Workshop 2 is to develop a summary of your natural hazard risks and impacts identified during Workshop 1.

Workshop Discussion Items:

- Results of the mapping exercise completed in Workshop 1
- Location, extent, past occurrences of hazards
- Data or methodologies planned to describe the future occurrences of hazards

Workshop Activities:

- Share stories around past hazard events
- Revisit maps from Workshop 1 that captured hazard information
- Discuss and/or map hazard impacts together
- Complete the Hazard Identification and Risk Assessment Worksheet
- Introduce the Problem Statement Worksheet to the planning team. Encourage them to fill out the worksheet based on the conversation at the meeting but give them time after the meeting to finish and return them.

Workshop Results:

- Final list of hazards that will be included in the plan
- Preliminary list of assets that may be damaged during hazard events

Workshop Homework *(to be completed no later than 2 weeks prior to next meeting):*

- Hazard Identification and Risk Assessment Worksheet (if not completed at the meeting)
- Problem Statement Worksheet
- If a plan update: Ask all planning team members responsible for mitigation actions in the previously approved plan to provide an update on status. Plan updates must report on progress made towards mitigation actions.

WORKSHOP 3: MITIGATION STRATEGY

During Workshop 3, your planning team should develop goals, review problem statements and capabilities, and brainstorm mitigation actions. This workshop should also be used to determine the prioritization method you will use for evaluating actions.

Workshop Discussion Items:

- Results of the Capability Assessment Worksheets
- Mitigation planning goals
- Results of the Problem Statement Worksheets
- Examples of mitigation actions and funding sources
- Methods of prioritizing actions

Workshop Activities:

- Develop mitigation goals, keeping in mind goals developed for other community development programs.
- Break into small groups and work together to turn the problem statements into potential mitigation actions. Give each group a few problem statements to work on, and have each small group report out on results. Document, and use the potential actions to inform your action plan.
- Brainstorm and agree on prioritization method for mitigation action plan. Ask planning team members to discuss what is important to them, share prioritization criteria used for other planning processes, and document the results.

Workshop Results:

- Mitigation goals
- List of potential mitigation actions
- Documentation of prioritization criteria

Workshop Homework *(to be completed no later than 3 weeks prior to next meeting):*

- Mitigation Action Evaluation and Prioritization Worksheet
- Mitigation Action Implementation Worksheet

WORKSHOP 4: PLANNING FOR IMPLEMENTATION WORKSHOP

The goal of Workshop 4 is to gather commitments for plan maintenance and to begin planning for implementing your mitigation strategy.

Workshop Discussion Items:

- Results of the Mitigation Action Evaluation and Prioritization Worksheet
- Mitigation Action Plan
- Plan monitoring, evaluation, and update processes
- Plan maintenance responsibilities
- Opportunities for using the mitigation plan to support other planning or community development processes

Workshop Activities:

- Review the Mitigation Action Plan and make changes based on the discussion.
- Gather mitigation commitments from the agencies or departments responsible for implementing mitigation actions. Publicly committing to an action increases its chances of being completed.
- Conduct a small group exercise on plan integration. Ask the planning team members to bring a list of the plans, programs, or policies they each work with, and map out which parts of the mitigation plan could strengthen or support risk reduction decision-making in those other plans, programs, and policies.

Workshop Results:

- Revised Mitigation Action Plan based on workshop conversation
- List of responsible parties for plan maintenance activities
- Documentation of plan maintenance processes
- List of integration opportunities

Workshop Homework: None. At this stage in the planning process, you should have the information you need from your planning team and partners to finish drafting the mitigation plan. You may need to follow up with individual planning team members, but all worksheets should be complete. At this point, the planning team's homework is to review the entire mitigation plan after it is drafted and provide comments and feedback.

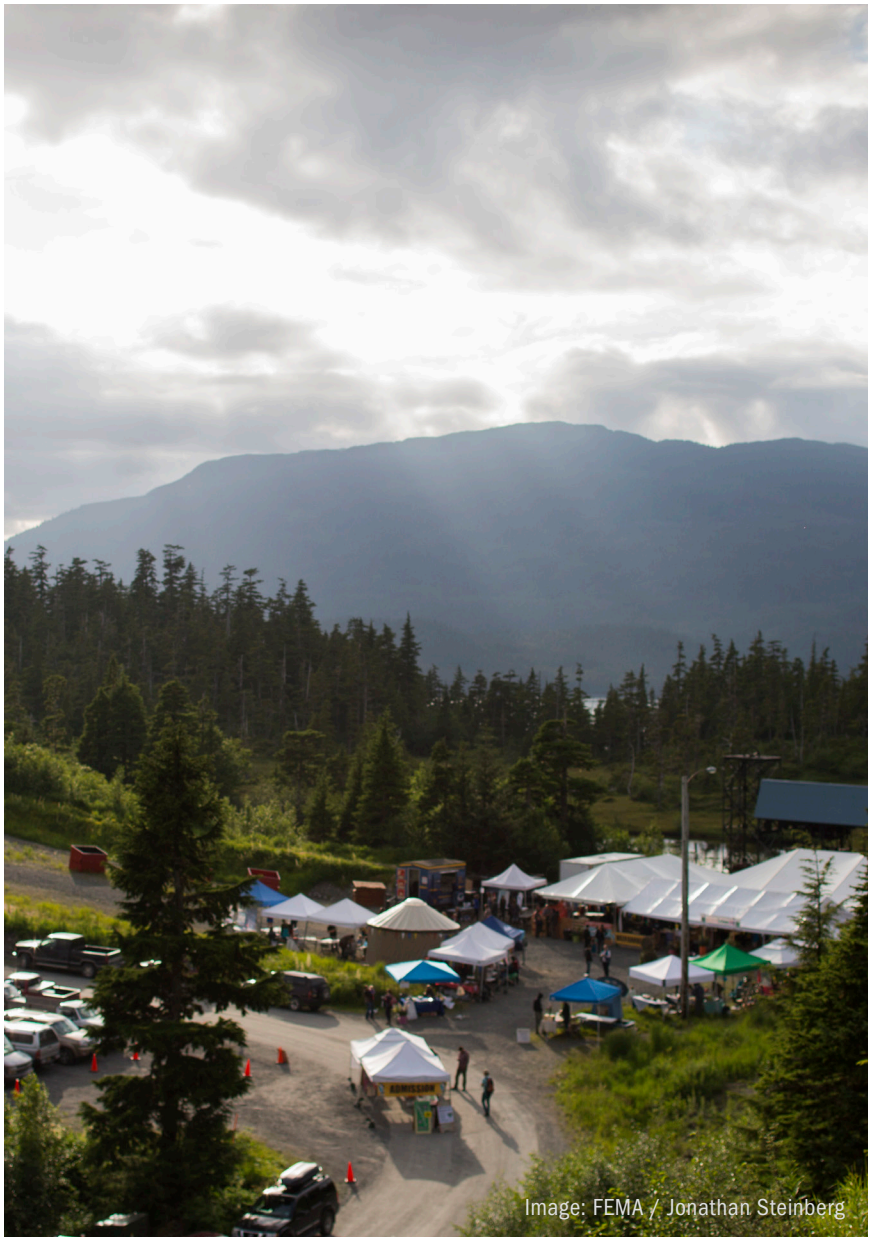

Image: FEMA / Jonathan Steinberg

Sample Planning Timeline

This sample planning timeline outlines a conceptual order of tasks and meetings, with suggested timing. It is a realistic timeline, but your planning team can use a shorter or longer planning process to fit your needs. The timing is structured as a countdown to the plan's targeted completion date. For plan updates, the targeted completion date should be no later than the expiration date, if possible, to prevent any gaps in plan coverage. If using grant funding to complete the plan, remember to keep in mind any schedule or timeline considerations specified in the grant.

TASK	DESCRIPTION	SUGGESTED TIMING
UPDATE ONLY: REVIEW PREVIOUS FEMA MITIGATION PLAN REVIEW TOOL OR CROSSWALK	The existing FEMA review crosswalk or plan review tool will have comments and opportunities for improvement identified the last time the plan was reviewed. Review those comments to guide the plan update.	Prior to Hazard Mitigation Assistance grant application. The result should drive the planning grant application, schedule, and cost. If grant funding is not being used, this should occur approximately 18 months prior to target plan completion.
REVIEW POTENTIAL PLANNING INTEGRATION OPPORTUNITIES	Review opportunities for coordination with other community development or planning opportunities. It is important to do this early because the coordination may drive the schedule or workshop design.	Prior to Hazard Mitigation Assistance grant application. The result should drive the planning grant application, schedule, and cost. If grant funding is not being used, this should occur approximately 18 months prior to target plan completion.
APPLY FOR HAZARD MITIGATION ASSISTANCE	If updating the plan, review existing plan and any materials compiled during plan maintenance. Review the Tribal Mitigation Plan Review Guide for a general understanding of the requirements of a Tribal Mitigation Plan. Determine the planning area being covered by the plan, including deciding if you will do a single-jurisdiction or multi-jurisdiction plan. Perform project scoping, including a detailed schedule and cost estimates. Complete and submit application.	According to FEMA grant application deadlines: Pre-Disaster Mitigation and Flood Mitigation Assistance are determined annually by the Hazard Mitigation Assistance Program. Watch grants.gov or contact your FEMA Region for more information. Hazard Mitigation Grant Program: Available after a declared disaster. Contact your FEMA Region or state, if applicable, for more information.
BUILD THE PLANNING TEAM	Gather planning team participant information using Worksheet 1. Contact planning team members and other partners to establish or renew the planning team, introduce the project, and provide a rough schedule.	Upon grant award and at least 18 months prior to target plan completion.
HOLD WORKSHOP 1 (KICKOFF)	Hold Workshop 1, focusing on sharing information, setting expectations, and gathering resources. Distribute the Asset Inventory, Capability Assessment, and NFIP Compliance Worksheet (if applicable) to the planning team. Brainstorm public engagement opportunities and share potential data sources for the plan.	16 months prior to target plan completion

Sample Planning Timeline (continued)

TASK	DESCRIPTION	SUGGESTED TIMING
FINALIZE PUBLIC OUTREACH OPPORTUNITIES	The public must be provided an opportunity to be involved in the planning process. Finalize your outreach opportunities early and insert them into your schedule appropriately. The planning team should be a part of this decision.	16 months prior to target plan completion
REVIEW DATA, PLANS, REPORTS, AND STUDIES	Review the planning documents, studies, reports and technical information that will be used in your plan.	16 months prior to target plan completion
DESCRIBE YOUR COMMUNITY (STEP 1)	Gather information on your tribal assets and the unique characteristics relevant to the mitigation plan. Draft Step 1 of the plan.	15 months prior to target plan completion
IDENTIFY YOUR HAZARDS	Identify the hazards of concern. Distribute Risk Assessment Worksheet to the planning team.	15 months prior to target plan completion
HOLD WORKSHOP 2 (RISK ASSESSMENT AND IMPACTS)	Hold Workshop 2, focused on discussing moving your identified hazards from a list to details. Collect the Risk Assessment Worksheets, if not completed prior to the meeting. Discuss hazard impacts and introduce problem statements. Distribute Problem Statement Worksheets to the planning team, if not completed at the meeting.	13 months prior to target plan completion
REFINE HAZARD PROFILES AND IMPACTS	Continue collecting data and finalize the location, extent, past occurrences, and probability of future occurrence for each hazard. Using hazard profiles, summarize vulnerable assets and finalize problem statements.	10–12 months prior to target plan completion
FINALIZE THE HAZARD IDENTIFICATION (STEP 3) AND VULNERABILITY ASSESSMENT (STEP 3)	Consolidate information from Workshop 2, the hazard profiles, and the vulnerability assessments. Draft Steps 2 and 3 of the plan.	9 months prior to target plan completion
COMPILE CAPABILITIES AND PROBLEM STATEMENTS	Compile the results of the capability assessment and problem statement worksheets to inform Workshop 3.	8 months prior to target plan completion

Sample Planning Timeline (continued)

TASK	DESCRIPTION	SUGGESTED TIMING
HOLD WORKSHOP 3 (MITIGATION STRATEGY)	Hold Workshop 3, focused on developing goals, reviewing problem statements and capabilities, and brainstorming mitigation actions. Determine what prioritization method you will use for evaluating actions. Ask the planning team to consider the implementation steps for the final list of mitigation actions.	7 months prior to target plan completion
FINALIZE CAPABILITY ASSESSMENT (STEP 4) AND MITIGATION GOALS AND ACTIONS (STEP 5)	Consolidate information from Workshop 3 on capabilities and goals and draft Steps 4 and 5 of the plan.	7 months prior to target plan completion
COMPLETE ACTION PLAN (STEP 6)	Document information obtained from the Workshop 3 and develop the mitigation action plan. Document the prioritization criteria used. Draft Step 6 of the plan.	6 months prior to target plan completion
HOLD WORKSHOP 4	Hold Workshop 4 with the planning team to develop plan maintenance processes and start planning to implement the plan.	5 months prior to target plan completion
COMPLETE PLAN MAINTENANCE SECTION (STEP 7)	Document information obtained from Workshop 4 and draft Step 7 of the plan.	5 months prior to target plan completion
COMPLETE DRAFT PLAN	Consolidate and review all sections of the plan. Prepare a draft document.	5 months prior to target plan completion
REVIEW DRAFT PLAN	Establish a review period for the complete hazard mitigation plan. This review period could be for your planning team, partners, and/or elected officials.	4 months prior to target plan completion
COMPLETE FINAL PLAN	Make all necessary revisions based on review comments and public feedback. Prepare the final product for submission.	3 months prior to target plan completion

Sample Planning Timeline (continued)

TASK	DESCRIPTION	SUGGESTED TIMING
SUBMIT FINAL PLAN TO FEMA OR STATE, AS APPLICABLE	Submit the final plan to FEMA or the State Hazard Mitigation Officer, if applicable, for review. Remember that FEMA has 45 days to review your plan, and it is a good idea to leave time in case there are required revisions prior to approval. For more details on plan review and approval procedures, review Appendix B of the Tribal Mitigation Plan Review Guide.	At least 75 days prior to target plan completion
RECEIVE FEMA "APPROVABLE PENDING ADOPTION" NOTICE (IF PLAN WAS NOT ADOPTED) OR "APPROVED" NOTICE (IF THE PLAN WAS ALREADY ADOPTED)	If the plan meets all the requirements and you did not adopt the plan prior to submission, FEMA will determine that the plan is "Approvable Pending Adoption." If the plan has previously been adopted, FEMA will determine the plan is "Approved."	After plan submission and FEMA review
ADOPT FEMA-APPROVED PLAN (IF PLAN WAS NOT ADOPTED PRIOR TO SUBMISSION)	Once FEMA determines that the plan is Approvable Pending Adoption, it must be adopted. Follow your guidelines and requirements for public notice associated with adopting plans.	Within one year of "Approval Pending Adoption"
EVALUATE PLAN AND CELEBRATE SUCCESS	Follow your plan maintenance procedures and celebrate success as you implement your plan.	At least annually

APPENDIX C: PLANNING PROCESS WORKSHEETS

1. PLANNING TEAM WORKSHEET

Use this worksheet to build your planning team. You do not need to identify someone from each group; this sheet is intended to help you think about who to ask to join the planning team. Consider including people that are knowledgeable of your natural hazard risks and mitigation capabilities. If a category doesn't apply, leave the line blank.

TRIBAL GROUP OR PARTNER	PLANNING TEAM MEMBER NAME AND AFFILIATION	CONTACT INFORMATION	NOTES
TRIBAL GROUPS INVOLVED IN HAZARD MITIGATION ACTIVITIES			
Code Enforcement			
Planning or Community Development			
Emergency Management			
Fire Department or District			
Floodplain Administration			
Geographic Information Systems			
Housing			
Parks and Recreation			
Public Information Office			
Public Works			
Stormwater Management			
Transportation			
Other			

1. Planning Team (continued)

TRIBAL GROUP OR PARTNER	PLANNING TEAM MEMBER NAME AND AFFILIATION	CONTACT INFORMATION	NOTES
AGENCIES WITH AUTHORITY TO REGULATE DEVELOPMENT			
Tribal Council or Tribal Leaders			
Planning Commission			
Special Districts			
Development Corporation			
Other			
OTHER AGENCIES			
Economic Development Agency			
Police or Sheriff's Department			
Other			
NON-GOVERNMENTAL ORGANIZATIONS			
Cultural Institutions (museums, libraries, theatres)			
Faith-based Organizations			
Environmental Organizations			
Tribal Organizations			
Schools			
Other			

1. Planning Team (continued)

TRIBAL GROUP OR PARTNER	PLANNING TEAM MEMBER NAME AND AFFILIATION	CONTACT INFORMATION	NOTES
FEDERAL AND STATE AGENCIES			
FEMA			
Bureau of Indian Affairs			
Federal Land Management Agencies			
National Weather Service			
U.S. Army Corps of Engineers			
U.S. Department of Housing and Urban Development			
U.S. Department of Transportation			
U.S. Environmental Protection Agency			
U.S. Geological Survey			
State Emergency Management Agency			
State Climatologist			
Other			
OTHER			
Major Employers and Businesses			
Regional Planning Councils			
Neighboring Tribal/Non-Tribal Jurisdictions			
Other Private and Non-Profit Groups			
Other			

2. ASSET INVENTORY WORKSHEET

Use this worksheet to help identify who and what you want to protect in your mitigation plan. The first column includes types of assets. This worksheet is not exhaustive but provides examples of assets to consider when completing your asset inventory. In the second column, provide details about each asset, like its location relative to natural hazard zones, why it is important to protect, and where data/information about this asset may be available.

WHO DO YOU WANT TO PROTECT?

PEOPLE

- ☐ Total population
  - Including population density or location of population centers
- ☐ Population with access or functional needs, such as:
  - Senior population
  - Transit dependent (people who do not have their own car/transportation)
  - Medically fragile and or mobility impaired
- ☐ Visiting or tourist population(s)

WHAT DO YOU WANT TO PROTECT?

HOUSING

- ☐ Residential building stock
  - Including residential density or location of housing centers

INFRASTRUCTURE

- ☐ Transportation infrastructure (such as bridges and transportation stations)
- ☐ Public utility infrastructure (such as wells, dams, flood control channels, river gages including pump stations, and communications towers)
- ☐ Other

ESSENTIAL FACILITIES

- ☐ Government administration buildings
- ☐ Emergency response facilities (such as police and fire stations)
- ☐ Hospital and medical clinics
- ☐ Community facilities (such as libraries, community centers, and parks)
- ☐ Jails and detention centers
- ☐ Tourism facilities (such as hotels and casinos)
- ☐ Education facilities (such as school buildings and offices)
- ☐ Public works facilities (such as wastewater facilities, potable water facilities and sanitation facilities

2. Asset Inventory (continued)

WHAT DO YOU WANT TO PROTECT?	
ECONOMIC ASSETS ☐ Major employers ☐ Agricultural areas ☐ Other	

WHAT DO YOU WANT TO PROTECT?	
CULTURAL AND SACRED RESOURCES ☐ Sacred sites ☐ Burial grounds ☐ Ceremonial sites ☐ Plant gathering sites ☐ Other *Note: Your plan does not need to include or disclose details about sacred and cultural sites.*	

3. HAZARD IDENTIFICATION AND RISK ASSESSMENT WORKSHEET

Use this worksheet to describe the characteristics of hazards and capture information about which hazards are most significant to the planning area. Modify this list as necessary and exclude hazards that are not relevant. For plan updates, it can be helpful to describe if and how each characteristic has changed in the last 5 years.

HAZARD	WHERE DOES THIS HAZARD OCCUR?	HOW FREQUENTLY DOES IT OCCUR?	WHAT IS THE MAGNITUDE OR STRENGTH?	HOW FREQUENTLY WILL THIS EVENT HAPPEN IN THE FUTURE?	WHAT ARE THE POTENTIAL IMPACTS?	NOTES AND AGENCY WITH EXPERTISE/ DATA
AVALANCHE						
DAM FAILURE						
DROUGHT						
EARTHQUAKE						
EROSION						
EXPANSIVE SOILS						
EXTREME COLD						
EXTREME HEAT						
FLOOD						
HAIL						
HURRICANE WIND						
LANDSLIDE						
LIGHTNING						
SEA LEVEL RISE						
SEVERE WINTER WEATHER						

3. Hazard Identification and Risk Assessment (continued)

HAZARD	WHERE DOES THIS HAZARD OCCUR?	HOW FREQUENTLY DOES IT OCCUR?	WHAT IS THE MAGNITUDE OR STRENGTH?	HOW FREQUENTLY WILL THIS EVENT HAPPEN IN THE FUTURE?	WHAT ARE THE POTENTIAL IMPACTS?	NOTES AND AGENCY WITH EXPERTISE/ DATA
STORM SURGE						
SUBSIDENCE						
TORNADO						
TSUNAMI						
WILDFIRE						
OTHER:						

Other comments or information to share:

4. PROBLEM STATEMENT WORKSHEET

This worksheet is designed to walk you through the process of getting to a problem statement once you have identified and analyzed your hazards. Because problem statements are most often developed by hazard, this worksheet prompts you to consider one hazard at a time. However, problem statements can identify problems that apply to all hazards. Several problem statements can lead to a single goal or mitigation action.

Here is an example response for the "Hazard Location" prompt:

HAZARD	*FLOOD*						
HAZARD LOCATION	Does this hazard have a defined location?	▷	If yes, describe	▷	Top location(s) of concern	▷	Problem Statement (what is the concern?)
	Yes, there are defined floodplains	▷	*· Along the river* *· Down main street* *· Through the agriculture fields*	▷	*· Housing along the river*	▷	*Housing along the river is continually flooded; in the past damaged housing has been built back to the same standards.*

Use this table to develop your problem statements.

HAZARD							
HAZARD LOCATION	Does this hazard have a defined location?	▷	If yes, describe	▷	Top location(s) of concern	▷	Problem Statement (what is the concern?)
		▷		▷		▷	
		▷		▷		▷	
		▷		▷		▷	

4. Problem Statement (continued)

HAZARD							
CRITICAL FACILITIES IN HAZARD ZONE?	Number of facilities	▷	Do any of these stand out as hazard prone?	▷	Top facility(ies) of concern	▷	Problem Statement (what is the concern?)
		▷		▷		▷	
		▷		▷		▷	
		▷		▷		▷	
POPULATION IN HAZARD ZONE?	Population	▷	Is there a specific population that is impacted more?	▷	Top concern(s)	▷	Problem Statement (what is the concern?)
		▷		▷		▷	
		▷		▷		▷	
		▷		▷		▷	
RESIDENTIAL BUILDINGS IN HAZARD ZONE?	Number of buildings, percentage of total building infrastructure	▷	Are there specific areas that are impacted more?	▷	Top concern(s)		Problem Statement (what is the concern?)
		▷		▷		▷	
		▷		▷		▷	
		▷		▷		▷	

4. Problem Statement (continued)

HAZARD								
NATURAL, CULTURAL OR SACRED SITES AFFECTED?	Identify specific sites (if desired)	▷		▷	Top concerns	▷	Problem Statement (what is the concern?)	
		▷		▷		▷		
		▷		▷		▷		
		▷		▷		▷		
HAS THIS HAZARD PREVIOUSLY OCCURRED?	If yes, what was the biggest impact?	▷			Why did this occur?	▷	Problem Statement (what is the concern?)	
		▷		▷		▷		
		▷		▷		▷		
		▷		▷		▷		
	If no, potential concerns?	▷			What could prevent the community from experiencing impacts?	▷	Problem Statement (what is the concern?)	
		▷		▷		▷		
		▷		▷		▷		
		▷		▷		▷		

5. CAPABILITY ASSESSMENT WORKSHEET

Use this worksheet to assess your planning and regulatory, administrative and technical, financial, and education and outreach capabilities. You may not have each kind of capability, but you should complete the tables and questions in the worksheet as completely as possible.

PLANNING AND REGULATORY

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Indicate which of the following items you have in place and provide a brief description.

PLANS	YES/NO YEAR	QUESTION	EXPLAIN:
COMPREHENSIVE/MASTER PLAN		Is safety explicitly included in the plan's growth and development policies?	
CAPITAL IMPROVEMENTS PLAN		Are mitigation related structure and infrastructure projects included in the plan?	
ECONOMIC DEVELOPMENT PLAN		Are there plans for economic development in high hazard areas and are there mitigation strategies to implement it?	
EMERGENCY OPERATIONS PLAN		Are evacuation routes in high hazard areas?	
TRANSPORTATION PLAN		Are major transportation routes in high hazard areas?	
HOUSING PLAN		Is any housing in high hazard areas? Are any units planned for high hazard areas?	
OTHER PLANS		Are there any particular cultural practices or beliefs that relate or translate into actions for development or non-development in high hazard areas?	

5. Capability Assessment (continued)

LAND USE PLANNING AND ORDINANCES OR PRACTICES	YES/ NO	QUESTION	YES/ NO	EXPLAIN:
ZONING ORDINANCE OR PRACTICES		Are there any laws (e.g., not building in the floodplain, crop rotation, etc.) that preclude building in areas that are hazardous, and do you have the staff to enforce them?		
SUBDIVISION ORDINANCE OR PRACTICES		Does the ordinance include considerations for reducing hazard impacts?		
BUILDING CODES		Does the building code include considerations for reducing hazard impacts?		
NATURAL HAZARD SPECIFIC ORDINANCE OR PRACTICES (STORMWATER, STEEP SLOPES, WILDFIRE)		Are there laws to discourage development in high hazard and environmentally sensitive areas?		
ACQUISITION OF LAND FOR OPEN SPACE AND PUBLIC RECREATION USES		Is there a funding source and policy in place for preservation of open spaces in high hazard areas?		
MAINTENANCE PROGRAMS TO REDUCE RISK, E.G., TREE TRIMMING, CLEARING DRAINAGE SYSTEMS		Do these programs receive consistent funding?		
OTHER				

5. Capability Assessment (continued)

ADMINISTRATIVE AND TECHNICAL

Identify whether you have the following administrative and technical positions. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions.

ADMINISTRATIVE RESOURCE	YES/NO	DESCRIBE CAPABILITY	DOES COORDINATION NEED TO BE IMPROVED? YES/NO	NOTES
TRIBAL COUNCIL/ GOVERNING BODY				
TRIBAL CHIEF EXECUTIVE (EX: CHIEF, CHAIRPERSON, GOVERNOR, PRESIDENT)				
MITIGATION PLANNING COMMITTEE				
BUSINESS COMMITTEES				
MUTUAL AID AGREEMENTS				

STAFF RESOURCE	IS THIS A PERMANENT POSITION? YES/NO	IS STAFFING ADEQUATE TO ENFORCE REGULATIONS? YES/NO	IS THIS STAFF TRAINED ON HAZARDS AND MITIGATION? YES/NO	IS ADDITIONAL STAFF (OUTSIDE RESOURCES) TO IMPLEMENT ACTIONS? YES/NO
CODE INSPECTOR				
ENVIRONMENTAL/NATURAL RESOURCES SPECIALIST				
EMERGENCY MANAGER				
COMMUNITY PLANNER				
HOUSING SPECIALIST				
ENGINEER				

5. Capability Assessment (continued)

ADMINISTRATIVE AND TECHNICAL (CONTINUED)

STAFF RESOURCE	IS THIS A PERMANENT POSITION? YES/NO	IS STAFFING ADEQUATE TO ENFORCE REGULATIONS? YES/NO	IS THIS STAFF TRAINED ON HAZARDS AND MITIGATION? YES/NO	IS ADDITIONAL STAFF (OUTSIDE RESOURCES) TO IMPLEMENT ACTIONS? YES/NO
HISTORIAN/CULTURAL ADVISOR				
FINANCIAL OR GRANTS SPECIALIST				
ADMINISTRATIVE STAFF PERSON				
OTHER (BIOLOGIST, PUBLIC HEALTH SPECIALIST)				

TECHNICAL RESOURCE	YES/NO	QUESTION	YES/NO	NOTES
WARNING SYSTEMS/ SERVICES (REVERSE 911, OUTDOOR WARNING SIGNALS)		Is the level of technical capability and training of your staff adequate?		
HAZARD DATA AND INFORMATION		Is your staff trained to do hazard mitigation or do they need more training?		
GRANT WRITING		Is the level of technical writing capability of your staff adequate?		
GEOGRAPHIC INFORMATION SYSTEMS ANALYSIS		Is your staff trained in Geographic Information Systems mapping?		
OTHER		What technical assistance is needed for you to implement actions?		

5. Capability Assessment (continued)

FINANCIAL

Identify whether you have access to or is eligible to use the following funding resources for hazard mitigation.

FUNDING RESOURCE	ACCESS OR ELIGIBILITY?	NOTES
CAPITAL IMPROVEMENTS PROJECT FUNDING		
GAMING REVENUE, ENTERPRISE REVENUES		
FEES FOR WATER, SEWER, GAS, OR ELECTRIC SERVICES		
FEES FROM FESTIVALS, CAMPSITES, AND RECREATIONAL AREAS		
PERMITS AND OTHER FEES		
FEDERAL FUNDING (BIA, HOUSING AND URBAN DEVELOPMENT)		
CONTRACT SERVICES		
OTHER — What sources of revenue do you have? How do you envision making your matches or cost-share in its federal grant funding (e.g. in-kind or cash match or a combination)?		

EDUCATION AND OUTREACH

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

PROGRAM/ORGANIZATION	YES/NO	QUESTION	NOTES
GATHERINGS, FESTIVALS, CELEBRATIONS AND/OR MEETINGS		What have been some shortcomings or issues with outreach efforts? How do you plan to resolve them?	
NATURAL DISASTER OR SAFETY-RELATED SCHOOL PROGRAMS		Is there a gap in your outreach efforts? If yes, what steps do you intend taking to address this?	
FIRE SAFETY PROGRAMS		Is there a gap in your outreach efforts? If yes, what steps do you intend taking to address this?	
OTHER PROGRAMS		Are there any new or additional outreach efforts that may be considered?	

6. NFIP COMPLIANCE WORKSHEET

Use this worksheet to evaluate your compliance with the National Flood Insurance Program (NFIP), if you participate. Sources of information are identified to point you in the right direction, and your FEMA Regional Floodplain Management and Insurance point of contact also is available to assist.

NFIP TOPIC	POTENTIAL SOURCE OF INFORMATION	RESPONSE
INSURANCE SUMMARY		
How many NFIP policies are in your tribal planning area? What is the total premium and coverage?	FEMA NFIP Specialist	
How many claims have been paid out? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the tribal planning area?	Floodplain Administrator	
How many structures are exposed to flood risk within the tribal planning area?	Floodplain Administrator	
Describe any areas of flood risk with limited NFIP policy coverage.	Floodplain Administrator and FEMA Insurance Specialist	
STAFF RESOURCES		
Is the Tribal Floodplain Administrator or NFIP Coordinator certified?	Floodplain Administrator	
Is floodplain management an auxiliary function?		
Provide an explanation of NFIP administration services (e.g., permit review, mapping, education or outreach, inspections, engineering capability)		
What are the barriers to running an effective NFIP program, if any?		
COMPLIANCE HISTORY		
Are you in good standing with the NFIP?	FEMA NFIP Specialist, Floodplain Administrator, Community Records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visit or Community Assistance Contact?		
Is a Community Assistance Visit or Community Assistance Contact scheduled or needed?		

6. NFIP Compliance (continued)

NFIP TOPIC	POTENTIAL SOURCE OF INFORMATION	RESPONSE
REGULATION		
When did you enter the NFIP?	Community Status Book	
Are the Flood Insurance Rate Maps digital or paper?	Floodplain Administrator, Map Service Center	
Do your floodplain development regulations meet or exceed FEMA or state minimum requirements? If so, in what ways?	Floodplain Administrator, Code Enforcement	
Provide an explanation of the permitting process.	Floodplain Administrator, NFIP Flood Insurance Manual	
COMMUNITY RATING SYSTEM		
Do you participate in the Community Rating System?	Floodplain Administrator, FEMA NFIP Specialist	
What is your Community Rating System Class?	Floodplain Administrator, NFIP website	
What categories and activities provide Community Rating System points and how can the class be improved?	Floodplain Administrator	
Does the plan include Community Rating System planning requirements?	Mitigation Planning Team, Mitigation Planning and the Community Rating System Key Topics Bulletin Manual	

Other comments:

7. MITIGATION ACTION EVALUATION AND PRIORITIZATION WORKSHEET

Use this worksheet to help evaluate and prioritize each mitigation action being considered. For each action, evaluate the potential benefits and/or likelihood of successful implementation for the example criteria defined below.

1. Social Considerations – Life/Safety Impact

- Will the project have minimal, direct, or significant impact on the safety of businesses, residents, and properties?
- Will the proposed action have an adverse impact on any one segment of the population?
- Will the project be a proactive measure to reducing natural hazard risk?

2. Administrative Considerations – Administrative/Technical Assistance

- Is there sufficient staff currently to implement the project?
- Is training required for the staff to implement this project?

3. Economic Considerations – Project Cost

- What is the approximate cost of the project?
- How will the project be funded?

4. Other Considerations – Tribal Objectives

- Does the action advance other tribal objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of the tribal reservation master plan (or another comprehensive-type plan)?

7. Mitigation Action Evaluation and Prioritization (continued)

Rank each of the criteria with using the following scale:

CRITERIA	POINTS	HIGH	POINTS	MEDIUM	POINTS	LOW
LIFE/ SAFETY IMPACT	10	Significant impact on public safety for businesses, residents, properties	6	Direct impact on businesses, residents, properties	2	Minimal/negligible impact on businesses, residents, properties
ADMINISTRATIVE/ TECH ASSISTANCE	5	No additional staff or technical support needed to implement	3	Some administrative and technical support needed to implement	1	Significant administrative and technical support needed to implement
PROJECT COST	5	Low cost (<$25,000)	3	Moderate cost ($25,000-$100,000)	1	High cost to implement (>$100,000)
OTHER CONSIDERATIONS	5	Strongly supports/ advances other tribal objectives	3	Supports other tribal objectives to an extent	1	Does not support other tribal objectives or policies

For all evaluation criteria, list the mitigation project and assign points based on the above criteria, or the criteria decided upon by the planning team.

MITIGATION PROJECT	LIFE SAFETY	ADMINISTRATIVE/ TECHNICAL ASSISTANCE	PROJECT COST	OTHER CONSIDERATIONS	TOTAL SCORE
LOCAL PLANS AND REGULATIONS					
STRUCTURE AND INFRASTRUCTURE PROJECTS					
NATURAL SYSTEMS PROTECTION					
EDUCATION AND AWARENESS PROGRAMS					

8. MITIGATION ACTION IMPLEMENTATION WORKSHEET

Use this worksheet to document the details for each mitigation action selected for implementation. These details will then become part of your mitigation action plan.

TRIBAL JURISDICTION:	
MITIGATION ACTION OR PROJECT TITLE:	
WHICH PROBLEM STATEMENT OR CONCERN DOES THIS ADDRESS?	
HOW CAN THIS ACTION BE INTEGRATED INTO OTHER TRIBAL PROGRAMS OR ACTIVITIES?	
RESPONSIBLE AGENCY:	
IDENTIFIED PARTNERS:	
POTENTIAL FUNDING SOURCES:	
COST ESTIMATE:	
BENEFITS:	
TIMELINE:	
PRIORITY:	
NAME/DEPARTMENT AND CONTACT INFORMATION OF THE PERSON COMPLETING THIS FORM:	

9. MITIGATION ACTION PROGRESS REPORT

PROGRESS REPORT PERIOD	FROM DATE:	TO DATE:
PROJECT TITLE		
RESPONSIBLE AGENCY		
CONTACT NAME		
CONTACT PHONE/EMAIL		
PROJECT STATUS (CHECK ONE)	☐ Project completed ☐ Project canceled ☐ Project on schedule Anticipated completion date: _____ ☐ Project delayed Explain: _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

2. What obstacles, problems, or delays did the project encounter?

3. If not completed, is the project still relevant? Should the project be changed or revised?

4. Other comments

10. PLAN MONITORING AND EVALUATION WORKSHEET

This worksheet may help your planning team monitor and evaluate the plan. It uses a series of questions to identify areas where the plan may need to be updated to stay current. It is helpful to use this worksheet as a discussion guide when the plan is being monitored and evaluated annually, or according to your plan maintenance procedures.

MITIGATION PLAN ANNUAL REVIEW QUESTIONNAIRE		
Plan Chapter	**Considerations**	**Explanation**
PLANNING PROCESS	Are new tribal jurisdictions invited to participate in future plan updates?	
	Have any internal or external tribal agencies been invaluable to the mitigation strategy?	
	Can any procedures (e.g., meeting announcements, plan up-dates) be done differently or more efficiently?	
	Has the planning team undertaken any public outreach activities?	
	How can public participation be improved?	
	Have there been any changes in public support and/or decision-maker priorities related to hazard mitigation?	
RISK ASSESSMENT	Has a natural and/or manmade disaster occurred since the plan was last adopted?	
	Should the list of hazards addressed in the plan be modified?	
	Are there new data sources and/or additional maps and studies available? If so, what are they and what have they revealed? Should the information be incorporated into future plan updates?	
VULNERABILITY ANALYSIS	Do any new critical facilities or infrastructure need to be added to the asset lists?	
	Have any changes in development trends occurred that could create additional risks?	
	Are there repetitive losses and/or severe repetitive losses to document?	
CAPABILITY ASSESSMENT	Are there different or additional technical, financial, and human resources available for mitigation planning?	
	Has any tribal jurisdiction adopted new policies, plans, regulations, or reports that could be incorporated into this plan?	

10. Plan Monitoring and Evaluation (continued)

MITIGATION PLAN ANNUAL REVIEW QUESTIONNAIRE		
Plan Chapter	**Considerations**	**Explanation**
MITIGATION STRATEGY	Is the mitigation strategy being implemented as anticipated? Were the cost and timeline estimates accurate?	
	Should new mitigation actions be added to the Implementation Strategy? Should existing mitigation actions be eliminated from the plan?	
	Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update?	
	Are there new funding sources to consider?	
PLAN MAINTENANCE PROCESS	Was the plan monitored and evaluated as anticipated?	
	Have elements of the plan been incorporated into other planning mechanisms?	

11. SAMPLE TRIBAL ADOPTION RESOLUTION

Note: ***This is a sample. You can use the language below or its preferred format for adopting the plan. If using the sample resolution, be sure to insert your information where requested.***

[Insert name of Tribal Nation]

Resolution #_____

[Insert Title and Date of Mitigation Plan]

WHEREAS the [insert Tribal Nation governing body name] recognizes the threat that natural hazards pose to people and property within the [insert Tribal Nation name];

WHEREAS the [insert Tribal Nation name] has prepared a multi-hazard mitigation plan in accordance with the Disaster Mitigation Act of 2000 and the requirements in Title 44 Code of Federal Regulations Section 201.7;

WHEREAS the Plan specifically addresses hazard mitigation strategies and plan maintenance procedures for [insert Tribal Nation name];

WHEREAS the Plan recommends several hazard mitigation actions and projects that will provide mitigation for specific natural hazards that impact [insert Tribal Nation name], with the effect of protecting people and property from loss associated with those hazards;

WHEREAS, adoption of this plan will make the [insert Tribal Nation name] eligible for funding to alleviate the impacts of future hazards on the Reservation,

NOW THEREFORE BE IT RESOLVED by the [insert appropriate official titles] of the [insert Tribal Nation name] that:

1. The Plan is hereby adopted as an official plan of [insert Tribal Nation name].
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them.
3. Future revisions and plan maintenance required by 44 CFR 201.7 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the [insert appropriate official titles such as Mayor, Governor, Tribal Council, etc.] by [insert date] of each calendar year.
5. The [insert Tribal Nation name] will comply with all applicable federal statutes and regulations in effect with respect to the periods for which it receives grant funding, including 2 CFR Parts 200 and 3002; and will amend our plan whenever necessary to reflect applicable changes in Tribal or federal laws and statutes.

PASSED by the [insert appropriate title], this ___ day of _____ (month), _____(year).

[Provide various signature blocks as required]