

Montana Flood After Fire Guidebook



July 2024



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What is in this guide?

This guide contains resources for local governments and communities to address increased flood risk and debris flows that can occur after wildfires. This guide is a resource to communities affected by a wildfire that need to navigate the complex web of federal and state programs and agencies.

While wildfires generate many hazards, this guide focuses on two topics: increased flood hazard, and increased debris flow hazard. This does not minimize other concerns after a fire, such as public safety on transportation and recreation, ecosystem restoration, and economic recovery.

This guide first explains post-fire risks for flooding and debris flows, followed by general principles on how to address these risks. It explains agency roles and gives real examples using case studies. Appendix A has agency summaries of the agencies that assist with post-fire flood risk. Appendix B lists the possible assistance for local governments, with eligibility information.

Who is this guide for?

Emergency managers, floodplain managers, and hazard mitigation planners will find it most useful. Local officials can use components of the guidebook to respond to the increased flooding threat after a fire. Strong working relationships built during one phase of the cycle provide a foundation for continued coordination and cooperation during other phases of the cycle. It can be an educational tool for private landowners and local law enforcement. Soil and water conservation districts, state officials, and federal officials can use the guidebook to understand other agencies' roles and responsibilities.



Why is there a higher risk of flooding after a fire?

Wildfires dramatically change the landscape and ground conditions, which can lead to a higher risk of flooding. When a wildfire burns a portion of a watershed, the resulting burn scar increases the potential for flooding until vegetation is re-established. Natural, unburned vegetation and soil normally act as a sponge during a rainfall event. However, the heat from a fire can bake the ground, creating a surface that will not absorb water and can increase the speed with which water flows off the slope. When a wildfire compromises or eliminates these normal protective functions, the potential for significant flooding and debris flows increases. The infographic illustrates this below.

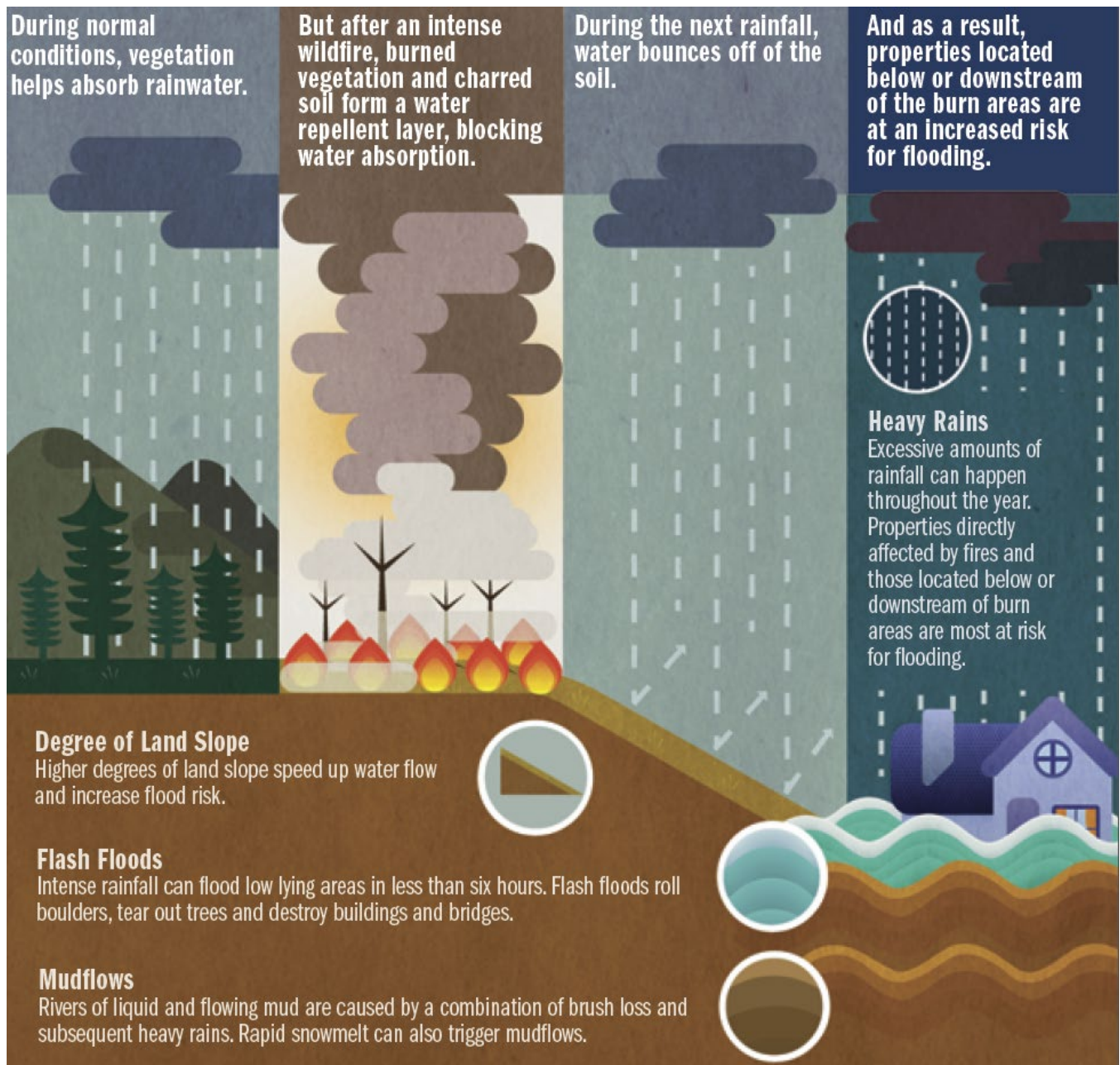


Image adapted from FEMA Flood After Fire Toolkit

Two distinct types of hazards exist when a heavy rainstorm occurs on a burned watershed: flooding and debris flows.

Flash Flooding

Flash floods are a concern even without a burned watershed. The odds of a flash flood increase dramatically when a fire has burned the area upstream as well as upslope.

For any burn area, it takes much less rainfall to result in flash flooding than before the wildfire. Even modest rainstorms or heavy rain for a short time over a burned area can cause flash flooding downstream and also occurs downslope. Thunderstorms that develop quickly over burn areas can produce flash flooding and debris flows nearly as fast as National Weather Service radar can detect the rainfall, providing only a short time for warnings. These floods are typically much larger for a given sized storm than they were before the wildfire, so flooding is likely to be much more extensive following wildfire, endangering properties previously considered safe from flooding. Likelihood of flooding can depend on the terrain, how much time the ground has had to heal, vegetation regrowth and the severity of the fire on the landscape. These floodwaters typically transport surface debris such as downed trees and gravel, but still behave like water.

Debris Flows (Mudflows)

As water runs downhill through burned areas, it can create major erosion and pick up large amounts of ash, rocks, boulders, and burned trees, generating a debris flow (also commonly termed “mudflow”)¹. Fast-moving, highly destructive debris flows are one of the most dangerous post-fire hazards, since they occur with little warning. High rainfall rates are the trigger for debris flows, rather than the total amount of rain. Their mass and speed make them particularly destructive. Debris flows can strip vegetation, block drainages, damage structures, and endanger human life. The force of the rushing water and debris can threaten life and property miles away from the burned area. Survivors of debris flows describe sounds of cracking, breaking, roaring, or a freight train.

How long do post-wildfire risks last?

In areas that have been severely burned, post-wildfire risks of floods or debris flows may last for two to five years. After two or three years, the regrowth of vegetation and reduced water repellency of the soil should lower the risk considerably.

What actions will reduce risk?

Communities cannot eliminate the risk of flooding or debris flows after a fire, but they can take steps that can reduce risk. Risk is a function of:

1. The probability of an event occurring
2. The negative consequences created by the event

Strategies to mitigate risk include measures to address both components of risk. While nothing can control the weather, some measures can reduce the chances of an event on the ground. For instance, smaller culverts can clog easily with debris, which can cause water to back up and overtop roadways, potentially eroding away the

¹ “Debris Flow” and “Mudflow” are used interchangeably in this document. The National Flood Insurance Program covers damages from both flooding and mudflows, and a debris flow qualifies as a mudflow. For more detailed definitions, refer to Lancaster et al (2015), “Alluvial Fan Flooding Hazards: An Engineering Geologic Approach”, California Geologic Service.

slope and suddenly releasing a large amount of water. Debris control structures can be installed upstream of culverts, or they can be replaced with larger structures to reduce the chances of this situation occurring. This type of mitigation addresses the probability component of risk. Measures that mitigate the consequence component of risk include creating warning systems and purchasing flood insurance.

While “all disasters are local”, state and federal government agencies have a role to play in preparing for flooding hazards. When all levels of government act, the response is more effective. Activities to respond to the post-fire threat are broken down into three categories:

1. **Independent State/Federal Government Actions:** Actions occur with limited community input.
2. **Direct State/Federal Government Assistance:** Support potentially available by community request.
3. **Community-Driven Activities:** Risk mitigation activities with a more limited state/federal role.

1. Independent State/Federal Government Actions

The actions in this category will occur regardless of how proactive local communities are in asking for support. The community can inform these actions, but they will usually occur with no formal request. Some examples include:

1. **Incident Management Team.** State or federal agencies typically lead the direct response and firefighting activities. This team dissolves once the immediate threat of the fire is over.
2. **Burned Area Emergency Response (BAER).** BAER teams identify and manage potential risks to resources on all federal lands and reduce these threats through appropriate emergency stabilization measures to protect human life and safety, property, and critical natural or cultural resources. For more information, refer to Appendix C.
3. **Targeted forecasting.** Targeted forecasting of rainfall in a burned area begins while the fire is still ongoing. The National Weather Service further refines the post-fire forecasts by reviewing values at risk and placing greater focus on watches and warnings near the burned area.

2. Direct State/Federal Government Assistance

The community must request most assistance programs from federal and state agencies. Proactive communities ask for this support so that the burden of reducing risk is not borne entirely locally. Assistance is not always available, and different programs become available depending on the size of the fire and on what lands it occurs. For a full list of all assistance programs with eligibility requirements refer to Appendix C.

Emergency declarations often open the door to larger state and federal assistance. Local government provides initial response to the emergency or disaster. Neighboring communities and volunteer agencies supplement these efforts. If local governments are overwhelmed, the emergency management office requests the county commissioners declare a state of emergency and request state assistance. Once the state exceeds the amount of assistance it can provide, the Governor may make a request to the President, who may issue “major disaster” or “emergency” declarations before or after catastrophes occur. Emergency declarations trigger aid that protects property, public health and safety, and lessen or averts the threat of the incident becoming a catastrophic event. A major disaster declaration constitutes broader authority of federal agencies to provide supplemental assistance to help state and local governments, families and individuals, and certain nonprofit organizations recover from the incident.

State and federal assistance takes two general forms: direct services and financial assistance. Direct services are those actions for which the agencies do the work themselves, with no transfer of funds to the community. Other assistance programs use an approach that transfers financial resources to the community for them to manage. Financial assistance funding is often uncertain: financial limitations, benefit-cost requirements, and competition sometimes prevent award of contracts or grants. The table below gives some examples of direct services and financial assistance, see Appendix C for a full list:

Direct Services	Financial Assistance
Rapid-deployment rain gauges	Emergency Watershed Protection Program
Flood and debris flow risk assessments	Hazard Mitigation Grant Program
Emergency Permitting	Technical Assistance Grant
	Environmental Quality Incentives Program (e.g. reseeding)

3. Community-Driven Activities

State and federal assistance will not cover all the needs of a community. While state and federal agencies support risk mitigation activities, many actions require a stronger local lead. **Local governments are better suited to lead many activities, since they know the area and population much better than state and federal officials.** Local governments should work with private landowners and soil and water conservation districts to accomplish these risk reduction measures. Some activities that the local community typically leads include:

1. **Risk communication to residents and landowners.** While state and federal agencies may hold occasional public meetings and emphasize risks via their public information offices, the most trusted voices to residents are local government agencies. Residents and businesses in areas downstream and downslope of a wildfire should be aware of the hazards they face, the steps they can take to reduce their risk, and resources that may be available to assist them. Ensuring that the community is well-informed and prepared for risks will help the community be more resilient if a flood occurs. At a minimum, residents should be encouraged to sign up for emergency alert services.
2. **Flood insurance.** Local governments can encourage residents to purchase flood insurance policies. **Homeowner's insurance does not cover flooding.** Homeowners must purchase separate policies to cover flood damage through the National Flood Insurance Program or from private insurers. Floods after wildfire are typically more extensive than before wildfires. Individuals and businesses downstream of the burned area need to reassess their flood risk and re-evaluate the need to purchase flood insurance even if they were previously outside the flood zone. There is normally a 30-day waiting period for new flood insurance policies to go into effect. The Federal Emergency Management Agency (FEMA) may waive this requirement if a property is affected by flooding on burned federal land and the policy is purchased within 60 days of the fire containment date. To find out more about flood insurance, contact Montana State Auditor, Securities and Insurance Commissioner: <https://csimt.gov/insurance/> or go to FEMA's webpage: <https://www.fema.gov/national-flood-insurance-program/How-Buy-Flood-Insurance>.
3. **Flood warning systems.** One option to reduce risk is to install a flood warning system with sirens or other warning cues. While the National Weather Service may be able to assist in alert thresholds, it is up to the local government to operate the system.

Why coordinate after a fire?

In any large-scale event, it is critical to establish a framework for coordination among all parties involved in the response. **Unlike during the fire, a federal or state unified incident command does not generally manage response or recovery after a fire.** Instead, each agency and each level of government continues to act on its own authority. This creates an even greater need for coordination at the local level and sharing information among agencies to coordinate wildfire recovery efforts.

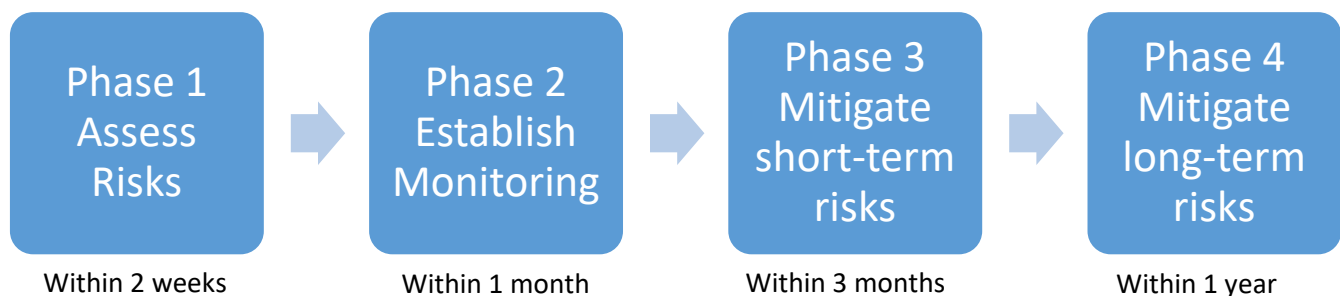
Who should lead the response effort?

The local emergency management office is usually best suited to coordinate this group. State and federal partners contribute to the team, but it is more important to ensure that local groups are part of the team. The primary functions of the group include:

- Coordinating the risk assessment and the exchange of information among agencies and landowners
- Assembling and exchanging geospatial data
- Matching risks to the agency best able to mitigate the risk
- Supporting public communications
- Coordinating with elected officials

How does post-fire response to the flood hazard come together?

It differs based on the location, scale of destruction, and the landowners of the burned areas. After establishing a coordination team to address the risk of flooding and debris flows, some best practices apply. The figure below gives a helpful framework for thinking about responses after the fire. This process should begin before the fire is completely contained. While the figure shows a linear process, it is likely that additional risks will emerge through the course of the post-fire response.



Phase 1 – Assess Risks

Before beginning a concerted response effort, the coordination team should assess the severity of the risks. Agency partners that were part of the BAER Team or in the Emergency Operation Center (EOC) during the fire can provide this information. The coordination team should begin by sharing all known analysis on flood risk that existed before the fire. Potential steps to take in this phase include:

1. **Retrieve existing information.** This typically includes retrieving FEMA floodplain maps, hydraulic models of the rivers and creeks in the area, rainfall-runoff models, the BAER team reports and maps, and any other relevant existing work.
2. **Conduct a field visit.** This should involve all agencies participating in the coordination to see the areas of the community at risk. This field visit does not need to involve traveling inside the fire perimeter but should include areas at risk downstream or downslope of the fire.
3. **Establish a risk register.** A working database of risks identified, and potential mitigation measures is critical to a coordinated effort.
4. **Connect private landowners with support.** The BAER Team or EOC agency partners can provide the first steps of support with landowners. Working with federal, state, and local officials a comprehensive line of communication about support can be started once the fire is contained and landowners identified.
5. **Apply for advance measures from federal agencies.** If the risk is severe enough and the emergency has depleted local and state resources, federal agencies such as the U.S. Army Corps of Engineers (USACE) or FEMA may be able to provide support.

Phase 2 – Establish Monitoring

Monitoring activities provide no reduction in probability of an event occurring, but they can give advanced warning of hazards. Monitoring activities often initiated by agency partners should be communicated so all partners are aware of resources deployed or available. Potential activities include:

1. Rapid-deployment stream gauge from U.S. Geological Survey (USGS) (see Appendix C)
2. Rapid-deployment rain gauge from the National Weather Service (NWS) (see Appendix C)
3. Work with NWS and USGS to set up emergency alert thresholds based on rainfall rates.
4. Contact the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) to see if targeted snowpack forecasting is available (see Appendix C)
5. Visit the creeks in the area periodically to document changes in channel conditions (e.g. sedimentation and debris) if permission is granted by local officials and any private landowners.

Phase 3 – Mitigate short-term risks

After identifying a significant risk, the team should explore options for mitigation of that risk. Short-term risks are defined here as those that can be addressed within three months of the fire. Many of the mitigation measures in this phase are temporary, just to get the community through the winter. Potential mitigation measures for risks include:

1. Coordinate emergency response preparation. This could involve developing an Incident Action Plan to respond to a flood/debris flow.
2. Identify a source for sandbags and Hesco barriers and notify residents of distribution procedures so they can protect their property.
3. Elevate critical equipment and records that may be lost if a flood occurs.
4. Evaluate and discuss the possibility of debris control structures upstream of culverts.
5. Property owners may want to clear debris and downed trees from their property (permits may be needed).

Phase 4 – Mitigate long-term risks

Risks from fire can last several years, and short-term solutions are only a temporary fix to the problem. There often exists an opportunity to reduce risk in the long-term after the fire. The actions in this section generally take more time to coordinate but result in more significant risk reduction. Potential mitigation activities include:

1. Apply for mitigation projects through Montana Disaster and Emergency Services using Hazard Mitigation Grant funds, if applicable (see Appendix C). Mitigation projects can be very diverse, but can include buyouts of especially risky properties, replacing or relocating vulnerable infrastructure, restoring the landscape post-fire, and installing a flood warning system.
2. Apply for a Fire Mitigation Assistance Grant from Montana Disaster and Emergency Services (see Appendix C).
3. Apply for a flood risk reduction study from USACE. This can take the form of a planning study only, or a small flood risk management construction project managed by USACE.
4. Community can update hazard mitigation plan.

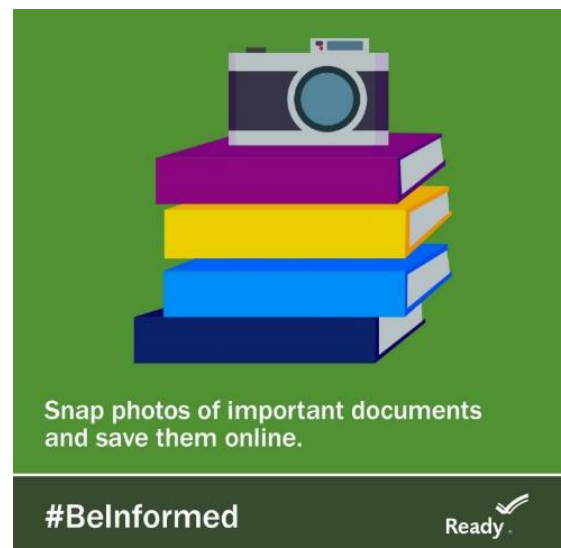
What should I tell residents?

Maintaining a balanced flow of communication is critical to ensure that residents do not forget the continuing risk after the fire. A balanced approach is critical so that landowners and residents don't turn off their receptors to continued information and future warnings. FEMA has developed an extensive media toolset to assist with communications on flood risk that occurs after fire. There are also other tools that agency partners have that can be distributed to educate property owners around burn scar areas. The FEMA flood after fire toolkit contains templates for social media posts, infographics, and ideas for press releases. The toolkit is free of charge: https://nfipservices.floodsmart.gov/sites/default/files/2021-06/NFIP_FEMA%20Region%208_FAF%20Stakeholder%20Toolkit_508c%5B2%5D.pdf

Document, document, document. Take pictures of your property from multiple angles (and provide “before” images if they are available). Taking pictures is one of the most important things you can do to help yourself.

Consider purchasing flood insurance. A top priority after a wildfire is flood preparedness; flood insurance reduces financial exposure to flood damages, however can have a 30 day waiting period for new policies. To find out more about flood insurance, contact Montana State Auditor, Securities and Insurance Commissioner <https://csimt.gov/insurance/> or go to FEMA's informational webpage on how to buy flood insurance (<https://www.fema.gov/national-flood-insurance-program/How-Buy-Flood-Insurance>).

Do not assume FEMA is all you need. A Presidential Disaster Declaration is required for a community to become eligible for FEMA funding. FEMA assistance, when provided, provides minimum assistance to get people on their feet after a disaster.



Who made this guide?

The Montana Silver Jackets team is a partnership of state and federal agencies with a role in assessing and managing flood risk across the state. The Montana Silver Jackets created this guide to increase preparedness for flooding and debris flow concerns after wildfires and provide a singular picture of state and federal assistance, rather than reaching out to each agency individually. For more information on the Montana Silver Jackets, see our website: <https://dnrc.mt.gov/Water-Resources/Floodplains/Silver-Jackets>



Appendix A: Recent Wildfire

2024 Deadman Fire

Link to InciWeb - <https://inciweb.wildfire.gov/incident-information/mtmts-deadman-fire>

Background

Northern Rockies Team 3, Incident Commander Mike Behrens

Location: 17 miles south of Birney, Montana and north of Tongue River Reservoir in Rosebud and Big Horn Counties

Start Date: 7/12 and 7/13/2024

Cause: Lightning

Size: 22,208 estimated combined total acres

Completion/Containment: 0

KEY MESSAGE

Northern Rockies Complex Incident Management Team 3, Incident Commander Mike Behrens, took command of these fires at 6:00 AM today.

Numerous fires were ignited in southeast Montana by dry lightning on July 12 and 13. Team 3 will manage several of these fires. The Deadman Fire and the Anderson Fire burned together on Sunday, reaching an estimated combined 15,294 acres. The combined Deadman/Anderson fires will be referred to as Deadman.

CURRENT STATUS

Landowners, ranchers, local fire departments, and state and federal land agencies have worked incredibly hard the past several days fighting these fires and have made significant progress. Crews and landowners have been building miles of fire lines and conducting burnout operations to gain ground. Last night, the McGhee Fire pushed northwest towards Birney. Today, the Flathead Interagency Hotshot Crew and other resources will be working to connect pieces of fire line to secure that part of the fire. The prevailing wind direction today should help. The team is assessing needs, developing a plan, and ordering resources, although as fire season picks up in Montana, resources will begin to be stretched.

WEATHER AND FIRE BEHAVIOR

Fuel moistures are low, making fire behavior erratic even without strong winds. Fire continues to carry in the grass and mixed shrubs, even overnight. Spotting may be an issue throughout the day, especially as winds increase. Hot and dry conditions are expected into the foreseeable future.

CLOSURES AND SPECIAL MESSAGES

An evacuation warning remains in place for residents along the Tongue River Road from the Tongue River Bridge at Wall Creek to the southern Rosebud County line. Specific closure information and maps on the Rosebud and/or Big Horn County Facebook Pages.

2024 Horse Gulch Fire

Link to InciWeb - <https://inciweb.wildfire.gov/incident-publication/mthlf-horse-gulch-fire/horse-gulch-fire>
Background

Location: 5 miles south of York, MT

Start Date: 7/9/2024

Cause: Human, under investigation

Size: 13,299 estimated combined total acres

Completion/Containment: 10

Current Status

Yesterday, Horse Gulch fire operations determined the control line would reasonably hold the fire from Cave Gulch Road on the southern edge west along Jimtown Road and north to Kingsberry Gulch. Due to the hard work of crews, equipment operators, and aircraft pilots, that portion of the fire perimeter is contained. Residents who had been displaced by the threat of the Horse Gulch Fire were allowed to return home yesterday but remain under Evacuation Warning status. The area is still closed to the public. Crews completed hand line on the northeast portion of the fire through steep and rugged terrain inaccessible to heavy equipment, connecting with existing dozer line. Additional reinforcement of the fire's southern border continued as crews transitioned to 'mop up,'; searching for and extinguishing remaining heat along the fire line. Mop up is the last stage of fire suppression to include cold trailing where active flame and heat continue to be extinguished. Aerial support to fire fighters on the ground was key to the progress made on the Horse Gulch Fire. Night operations observed continued active fire behavior on the northeast side of the fire area due to extremely receptive fuels available to burn.

Today, fire lines will be improved upon by utilizing firing operations on areas of the northern perimeter as the weather allows. The primary focus will be on the northern side of the fire where the fire is most active. Crews continue to reinforce fire lines at the top of Magpie Gulch. The Structure Group will continue to monitor and check structures throughout the fire area.

Weather and Fire Behavior

Today, winds will calm ahead of possible thunderstorms in the area bringing a slight chance of rain with a very small potential for any impact on fire activity. Temperatures are forecasted to be in the 90s-100, continuing to dry fuels on all aspects leading to fuels being resistant to control efforts.

Evacuations (UPDATED): Effective 7/15/24, all evacuation orders transitioned to evacuation warnings, allowing residents of homes and RVs back into their properties. Under evacuation warning, residents should be prepared to leave if conditions change. [Sheriff - Lewis & Clark County \(lccounty.mt.gov\)](https://lccounty.mt.gov/)

Road Closure: Canyon Ferry Road remains closed to the public from Canyon Ferry Village to the Broadwater County line.

Forest Closure: The Helena-Lewis and Clark National Forest updated their forest closure. It can be found at [Helena-Lewis and Clark National Forest - Home \(usda.gov\)](https://www.usda.gov/land-management/land-ownership/forest-land/helena-lewis-and-clark-national-forest)

BLM Closure: The Butte Field Office has issued a closure on BLM lands near the fire area. <https://inciweb.wildfire.gov/incident-publication/mthlf-horse-gulch-fire/signed-blm-area-closure-07-14-2024>

Appendix B: State and Federal Government Agencies

This appendix contains brief summaries of the roles of various state and federal agencies that are involved in managing flood risk after a wildfire. For more details on assistance programs offered by these agencies, refer to Appendix C.

Federal Emergency Management Agency (FEMA)

U. S. Department of Homeland Security



FEMA leads the effort to prepare the U.S. for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program. FEMA often works in partnership with other agencies and organizations that are part of the nation's emergency management system, including state and local emergency management agencies, other federal agencies, and the American Red Cross. FEMA's programs provide assistance in areas including multi-hazard mitigation planning, implementation of hazard mitigation projects, and training and capacity building for state and rural firefighting programs.

PROGRAMS

***Note:** Most FEMA programs, although funded by FEMA, are administered through the Montana Disaster and Emergency Services but the National Flood Insurance Program is administered through Montana Department of Natural Resources and Conservation Floodplain Program.

- FEMA National Flood Insurance Program (NFIP)
- FEMA Flood Mitigation Assistance (FMA)
- FEMA Hazard Mitigation Grant Program (HMGP)
- FEMA Pre-Disaster Mitigation Program (PDM)



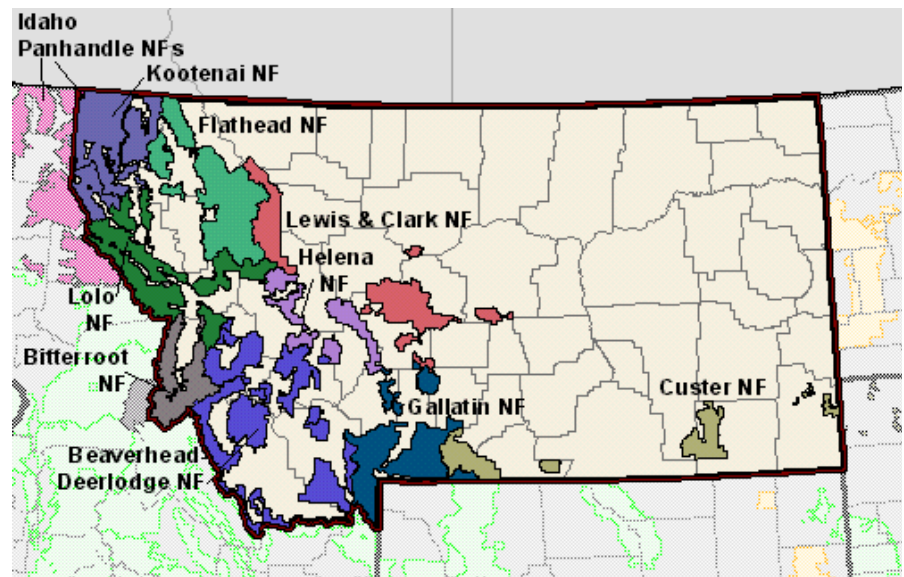
The U.S. Forest Service sustains the health, diversity, and productivity of national forests within Montana. The USFS is one of five federal agencies with wild land firefighting responsibilities and assists with establishing Fire Recovery Teams and Fire Recovery Assistance Centers.

The State and Private Forestry Program through the USFS offers a variety of assistance programs in areas including community planning for fire protection, hazardous fuel treatments, assistance to state and volunteer firefighting organizations, public education, economic action programs, forest health management, noxious weed treatment, and multi-resource stewardship.

Burned Area Emergency Response (BAER) teams evaluate risks to life, property, and critical natural and cultural resources resulting from the impact of recent wildfires. The teams provide recommendations for mitigations on National Forest System lands to prevent further damage to values at risk in the area. These BAER activities are generally limited to National Forest lands.

PROGRAMS

- State and Private Forestry Programs
- Burned Area Emergency Response (BAER)



NOAA National Weather Service (NWS)

U.S. Department of Commerce



The forecasts, warnings, and watches by the NWS provide weather information before, during, and after wildfires. During fires, NWS Incident Meteorologists travel to fire sites when requested by the fire-management team and provide weather information essential to the firefighting effort. The NWS coordinates closely with other agencies such as the U.S. Forest Service and the U.S. Geological Survey during recovery efforts to help forecast flash flood and debris flow events, and with local law enforcement offices to help provide emergency notification to landowners in areas threatened by flash flooding or debris flows. The National Weather Service (NWS) has always been very active in the wildfire community, but only recently has the NWS begun to try to fill some of the post-wildfire needs. NWS has established a post-wildfire program that covers forecasts and watch/warning products specifically for burn scars. NWS also has a rapid-deployment rain gauge cache maintained by NWS Western Region.

Montana is served by four Weather Forecast Offices, which are in Billings, Glasgow, Great Falls, and Missoula, Montana.

PROGRAMS

- Rapid Deployment Rain Gauges
- Targeted Forecasting

The National Weather Service issues watches, and warnings based on confidence levels. NWS typically issues watches 12-48 hours in advance of when flooding may occur. The watch is issued when the confidence level for an event occurring is around 50% to 80%. Once a watch is issued, residents should prepare to act.

NWS issues warnings when confidence is 80% to 100% that an event will occur (likely or occurring). Depending on the type of event, these may be issued anywhere from hours to days before an event. Residents should act when warnings are issued.

When a flood event is slow to develop, generally anything greater than 6 hours, it is treated as a flood event. When the event develops rapidly, generally anything under 6 hours, it is treated as a flash flood event.

- **Flash Flood Watch:** issued to indicate current or developing conditions that may result in flash flooding. The occurrence is neither certain nor imminent. A watch is typically issued within several hours to days ahead of the onset of possible flash flooding.
- **Flood Watch:** issued when conditions are favorable for a specific hazardous weather event to occur. A Flood Watch is also issued when conditions are favorable for flooding. It does not mean flooding will occur, but it is possible.
- **Flash Flood Warning:** issued when a flash flood is imminent or occurring. Residents in flood-prone areas should immediately move to high ground. A flash flood is a sudden violent flood that can take from minutes to hours to develop. It is even possible to experience a flash flood in areas not immediately receiving rain.
- **Flood Warning:** issued when the hazardous weather event or flooding is imminent or already occurring.



US Army Corps of Engineers®

The U.S. Army Corps of Engineers is the nation's primary water resources development agency. The Corps of Engineers has been involved in developing recreational and commercial navigation, reducing flood damage, and restoring ecosystems. The primary departments of USACE during a post-wildfire scenario are emergency management, regulatory (permitting), and floodplain management. USACE has expertise in hydrologic and hydraulic modeling of flood scenarios and has capability to offer emergency services during major disasters. Post-flood response activities are intended to save lives and protect property (i.e., public facilities/services and residential/commercial developments) following a major flood event. USACE does not assist individual homeowners and businesses. USACE serves as the federal lead for the Montana Silver Jackets team.

There are two USACE districts within the Northwestern Division, Seattle and Omaha Districts, that serve and support Montana and its communities for the purposes of emergency management and flood risk management. For regulatory permitting, the Omaha District is the primary point of contact for the state of Montana.

PROGRAMS

- Advance Measures
- Emergency Permitting



U.S. Geological Survey (USGS)

U.S. Department of Interior



The U.S. Geological Survey (USGS) is a science organization that strives to provide information on the natural hazards that threaten us. The Wyoming-Montana Water Science Center has field offices in Helena and Billings, MT and Cheyenne, Casper, and Riverton, WY. USGS data and research are essential for the protection of citizens of Montana against floods and other natural disasters and for the preservation of the environment. USGS has expertise in modeling and mapping debris flow hazards following wildfires and can provide on-the-ground support for post-wildfire response assessments. Additionally, the stream gaging mission of USGS is relevant in a post-fire scenario to provide valuable information on how a burned watershed responds to storm events.

PROGRAMS

- Rapid Deployment Gage Program
- Emergency Assessment of Post-Fire Debris Flow Debris Flow Hazards



Natural Resources Conservation Service

U.S. DEPARTMENT OF AGRICULTURE

The USDA Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve natural resources on private lands. NRCS works extensively with Soil and Water Conservation Districts and other partners across the state to manage natural resources on private lands. In the event of a wildfire or other disaster, local emergency managers can contact the NRCS district conservationist for their county to request assistance. In some situations, NRCS may provide financial and/or technical assistance for re-seeding, grade and streambank stabilization, and vegetation recovery efforts through the Environmental Quality Incentives Program or the Emergency Watershed Protection Program. Refer to the following website for NRCS resources for a fire: <https://www.nrcs.usda.gov/getting-assistance/disaster-recovery.office>.

The Environmental Quality Incentives Program (EQIP) can assist landowners in restoring areas impacted by wildfire. Post fire rehab EQIP projects target critical areas where there is a possibility of erosion and areas that have a high probability of conversion to invasive annuals due to burning. EQIP funding may be made available to counties impacted by wildfire for conservation practices such as weed control, planting, seeding, prescribed grazing, obstruction removal, fire break, fuel break, and fencing. Funding opportunities are announced by NRCS through press releases and in cooperation with partners such as Soil and Water Conservation Districts, Montana Department of Fish, Wildlife and Parks, Farm Service Agency, and Bureau of Land Management. Interested landowners complete an EQIP application at their local NRCS office. NRCS uses ranking questions to evaluate eligible applications and to prioritize funding.

The NRCS Emergency Watershed Protection (EWP) Program administers Federal assistance on state, tribal, and private lands to relieve imminent hazards to life and property created by a natural occurrence that causes a sudden impairment of a watershed. Natural occurrence includes, but is not limited to, floods, fires, windstorms, ice storms, hurricanes, typhoons, tornadoes, earthquakes, volcanic actions, slides, and drought. A watershed impairment exists when the ability of a watershed to carry out its natural functions is reduced to the point where an imminent threat to health, life, or property is created. The NRCS district conservationist serves as the local facilitator for EWP program activities.

The NRCS Snow Survey Program in Montana provides mountain snowpack and precipitation information via the SNOWpack TELelemetry (SNOTEL) network to issue streamflow forecasts for Montana and Wyoming. This data is available in near real-time online. Understanding the current snowpack conditions and the potential for rain-on-snow events can help local communities stay better informed and prepared to anticipate flash flooding after a wildfire. In a post-wildfire scenario, NRCS Snow Survey hydrologists work with the National Weather Service (NWS) to provide up-to-date snowpack forecasts to aid local communities in anticipating rain and flooding events. Check the website for the latest information: <https://www.nrcs.usda.gov/montana/snow-survey>.

APPLICABLE PROGRAMS

- Environmental Quality Incentives Program (EQIP)
- Emergency Watershed Protection Program (EWP)
- Snow Survey

Montana Disaster & Emergency Services (MT DES)



Montana Disaster and Emergency Services is the lead agency coordinating comprehensive emergency management in Montana. In collaboration with local and tribal governments they build, sustain, and improve the state's ability to prepare for, protect against, respond to, recover from, and mitigate hazards. MT DES is organizationally situated within the Montana Department of Military Affairs. The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security (DHS) provides guidance and grant oversight. MT DES maintains strong partnerships with public, private, and non-profit partners, as well as with individual citizens, ensuring robust planning intended to minimize the impact to their state populations affected by disasters have been engaged. MTDES manages several non-disaster hazard mitigation grant programs, serving as the primary liaison to FEMA.

PROGRAMS

- Management of Hazard Mitigation Grant Programs



The Montana DNRC Floodplain Management Program promotes common sense planning for development in flood prone areas through education for the benefit of public health, safety, and welfare. The Montana DNRC Floodplain Program has two departments, the State NFIP Coordinator and the Community Assistance Program provides Montana communities with assistance in floodplain regulation. The Community Assistance Program staff also act as the Montana Silver Jackets state lead. The Mapping Team provides Montana communities with technical assistance and leads all FEMA mapping in the state. The Floodplain Program offers assistance to communities that need guidance with emergency permitting during disasters.

PROGRAMS

- National Flood Insurance Program (NFIP) Coordination
- Risk Mapping, Assessment, and Planning (Risk MAP) Coordination

Montana Department of Transportation (MDT)



MDT provides a safe and reliable multimodal transportation system that connects people and helps Montana's communities and economy thrive. During wildfires, MDT may participate in emergency operations as the Highway Authority responsible for road closures on state highways. After a wildfire, MDT is responsible for ensuring that transportation corridors are safe for the public. MDT evaluates highways, culverts, and bridges after a wildfire to ensure they are structurally sound and are still capable of meeting their intended purpose. Roadway embankments are evaluated for slide, rockfall, and tree hazards.

Appendix C: Assistance Program Inventory

This appendix contains a comprehensive inventory of assistance programs from state and federal agencies. A summary table of all programs is shown on the following page, with further details in the following sections.

Program Name	Agency	Privately-owned ¹	State-owned (State Forest, DSL)	Federal-owned	Tribal-owned	Type of Assistance ²	Matching Funds required?	Emergency or Disaster Declaration Required?	How long will this take? ³	Must be requested from local government?
Burned Area Emergency Response	USFS			X ⁴		Direct	None	None	Medium	No
Emergency Stabilization and Rehabilitation	DOI			X ⁴	X	Direct	None	None	Medium	No
Advance Measures	USACE		X	X	X	Direct	None	None	Fast	Yes
Rapid Deployment Rain Gauges	NWS		X	X	X	Direct	None	None	Fast	Sometimes
Rapid Deployment Stream Gauges	OWRD	X	X	X	X	Direct	None	None	Fast	Sometimes
Rapid Deployment Stream Gauges	USGS	X	X	X	X	Direct	None	None	Fast	Yes
Targeted Forecasting	NWS		X	X	X	Direct	None	None	Medium	Sometimes
Snowpack monitoring	NRCS		X	X	X	Direct	None	None	Medium	Sometimes
Emergency Watershed Protection Program	NRCS	X			X	Funding	25% of cost	Presidential Declaration or State Conservationist Declaration	Fast/Medium	Yes
Emergency Permitting	USACE	X	X	X		Direct	Permit fee (\$100)	USACE-defined	Fast	Yes
Emergency Permitting	DSL	X	X	X		Direct	Permit fee (variable)	DSL-defined	Fast	Yes
Technical Assistance	ODF	X				Direct	None	None	Medium	Yes
Debris Flow Hazard Mapping	USGS	X	X	X	X	Direct	None	None	Fast	Sometimes
Hazard Mitigation Grants (HMGP)	OEM		X	X	X	Funding	25% of cost	Presidential disaster	Medium	Yes
Flood Mitigation Assistance	OEM		X	X	X	Funding	0%-25% of cost	None	Slow	Yes
Pre-Disaster Mitigation	OEM		X	X	X	Funding	25% of cost	None	Slow	Yes
Technical Assistance Grant	DLCD		X	X	X	Funding	None	None	Slow	Yes

Notes:

1. Private landowners should work with local governments rather than reaching out directly to state/federal agencies.
2. Direct assistance to local communities uses direct labor and materials from state/federal governments. Funding assistance comes to local governments by the form of funding, which is used by the local government.
3. “Fast” can be done within 30 days of the request. “Medium” can be done within 1 year, and “Slow” can be done within 3 years.
4. Burned Area Emergency Response (BAER) is used on National Forest lands, while Emergency Stabilization and Rehabilitation (ES&R) is used on National Park Service, Bureau of Land Management, and Fish and Wildlife Service lands.

Burned Area Emergency Response

U.S. Forest Service

What is it? The Burned Area Emergency Response (BAER) program identifies and manages potential risks to resources on National Forest System lands and reduce these threats through appropriate emergency measures to protect human life and safety, property, and critical natural or cultural resources. BAER is an emergency program for stabilization work to complete time-critical activities before the first damaging storm event. All fires with over 500 acres of National Forest system lands are evaluated for the need of a BAER team assessment.

What type of assistance is available? Funding for National Forest System lands, technical information for partner agencies.

Who can apply? U.S. Forest Service. Communities can suggest projects, but they do not formally apply.

Application deadline? Funding requests must be submitted within 7 days of fire containment.

What are the requirements to apply?

1. **State or Federal Declaration:** None required
2. **Burned landowner:** US Forest Service lands only
3. **Matching funds:** N/A

How soon can this start? Because of the emergency nature of BAER, the Forest Supervisor submits initial requests for funding of proposed BAER treatments to the Regional Office after a BAER assessment, but within 7 days after total containment of the fire. The Regional Forester's approval authority for individual BAER projects is \$500,000. Approval for BAER projects exceeding this limit is forwarded onto the Washington Office. Funding is available immediately upon authorization.

How long will the assistance last? All projects must be complete within one year of fire containment.

Contact Name: Regional BAER Coordinator

Contact Phone Number: (406) 449-5201

Website: <https://www.fs.usda.gov/naturalresources/watershed/burnedareas.shtml>

Advance Measures

U.S. Army Corps of Engineers (USACE)

What is it? USACE can provide emergency assistance after a fire and before flooding. Advance Measures are technical assistance or temporary construction. Advance Measures may prevent or reduce damages when there is an “imminent threat of unusual flooding.”

USACE can provide technical assistance to tribes and states to mitigate risks for an imminent threat of unusual flooding. Technical assistance can include developing contingency plans and exercises.

USACE may also do projects that reduce flood damage. These are temporary projects intended to prevent or reduce flood impacts. The projects are typically ones that (1) reduce threats to life or improved property, and (2) are beyond the capacity of a tribe, state, or local government. These short-term projects must be feasible and buildable to mitigate the imminent threat.

What type of assistance is available? Direct Service

Who can apply? Communities apply through a State Emergency Management Agency or a Tribal government.

Application deadline? There is no formal deadline to apply for this program.

What are the requirements to apply?

1. **State or Federal Declaration:** A disaster declaration is not required, but a letter from the governor is required stating that State, Tribal and local governments have exhausted all resources (i.e., workforce, supplies, equipment, funds, National Guard assets, etc.).
2. **Burned landowner:** Activities are limited to protecting life and public facilities/infrastructure in imminent danger of flooding. The law specifically excludes assistance to individual homeowners and businesses, including agricultural property.
3. **Matching funds:** None required

How soon can this start? After submitting a request with a letter from the governor.

How long will the assistance last? Variable

Contact Name: USACE Omaha District

Contact Phone Number: (402) 995-2229

Authority: Public Law 84-99

Rapid-Deployment Rain Gauges

National Weather Service (NWS)

What is it? The Western Region of the NWS has a cache of rapid-deployment rain gauges for rainfall monitoring in and around new burn scars. The availability is limited, so the NWS expects other avenues for securing rain gauges to be explored first. One to two gauges may be requested for a fire, although extenuating circumstances could allow for more.

The rain gauges are setup to transmit data via cellular networks or over satellite. More and more gauges are being set up with the cellular capabilities.

Who can apply? Any government agency

What type of assistance is available? Direct Service

Application deadline? There is no formal deadline to apply for this program.

What are the requirements to apply?

1. **State or Federal Declaration:** No declaration required
2. **Burned land owner:** No restriction
3. **Matching funds:** None required

How soon can this start? After the fire is out and a need-assessment is conducted, the NWS will help the land owner/manager make a case for procuring rain gauges. If other channels are exhausted, the NWS will request one or two gauges from their cache.

How long will the assistance last? Typically, one year, but extenuating circumstances may allow for longer duration.

Contact Name: Todd Chambers

Contact Email: todd.chambers@noaa.gov

Rapid-Deployment Rain Gages and Stream Gages (USGS)

United States Geologic Survey (USGS)

What is it? USGS Rapid Deployment Gages (RDG) are fully functional stream gages designed to deploy quickly and temporarily to measure and transmit stream stage data and rain data in emergencies. The short installation time allows the USGS to:

- Augment gage networks during river flooding by adding temporary locations.
- Provide situational awareness and support to emergency managers.
- Maintain data flow when stream gaging equipment is damaged.

The USGS local office has a supply of rapid-deployment equipment for streamflow rainfall monitoring in and around new burn scars and a few supplemental rain gauges that could deploy at existing stream gages when applicable. Cameras and other equipment can be added for rapid response monitoring. The Rapid Deployment Gages are set up to transmit data via cellular networks or satellite.

Who can apply? Any government agency

What type of assistance is available? Direct Service

Application deadline? There is no formal deadline to apply for this program.

What are the requirements to apply?

1. **State or Federal Declaration:** No declaration required
2. **Burned land owner:** No restriction
3. **Matching funds:** Localities, States and Tribes

How soon can this start? Within 2 weeks of an agreement to work.

How long will the assistance last? Typically one year, but extenuating circumstances may allow longer.

Contact Name: Kathy Chase

Contact Phone Number: (406) 439-9621

Contact Email: kchase@usgs.gov

Targeted Forecasting

National Weather Service (NWS)

What is it? Following a wildfire, the hydrologist at each office determines potential values at risk and then sets rainfall-rate thresholds for recent burn scars. Ideally, land-management agencies/communities responsible for the burned area assist with these forecasts. BAER reports or other assessments provide information to determine the severity of the impacts from the fire.

Once these values at risk and thresholds are set, the NWS will set up their products for quickly issuing watches and warnings. Within the NWS warning software, polygons are created with pre-determined wording to get the products out quickly when there is an imminent threat to a value at risk.

Watches and warnings play on NOAA All Hazards Radio (Weather Radio) and, in special cases such as a Flash Flood Warning, activate Emergency Alert System (EAS) and Wireless Emergency Alert (WEA). EAS transmits the warning over TV and radio, notifying emergency services. WEA pings cell towers in and around the warning area polygons. Any cellular user within range of these cell towers will receive the warning information.

Who can apply? Anybody

What type of assistance is available? Direct Service

Application deadline? There is no formal deadline to apply for this program.

What are the requirements to apply?

1. **State or Federal Declaration:** No declaration required
2. **Burned landowner:** No restriction
3. **Matching funds:** None required

How soon can this start? The NWS pays special attention to weather affecting a fire due to safety concerns during the suppression efforts. Targeted forecasting begins while the fire is still burning. Once the fire is out, more will be learned about which areas of the burn scar need special attention and specific criteria will be created and rainfall thresholds will be set and refined.

How long will the assistance last? Targeted forecasting by the local weather office will continue until the burn scar is deemed to no longer be a threat. That decision will be made through discussion between the landowner/manager, emergency management officials, and the NWS.

Contact: National Weather Service Offices Billings, Glasgow, Great Falls, and Missoula.

Snowpack Monitoring

USDA-Natural Resources Conservation Service

What is it? The NRCS can provide snowpack information to communities impacted by catastrophic wildfires. The information helped communities determine the potential for rain-on-snow events in burned areas, which can lead to debris slides and flooding.

What type of assistance is available? Weekly snowpack reports for burned areas that can be distributed to emergency management officials, landowners, and other partners.

Who can apply? Communities impacted by wildfires.

Application deadline? None

What are the requirements to apply? None

How soon can this start? Upon receipt of request for snowpack monitoring reports.

How long will the assistance last? If NRCS and the requesting entity feel it is needed to protect the public from runoff events on burned areas.

Contact Phone Number: (406) 727-7580

Website: <https://www.nrcs.usda.gov/montana/snow-survey>

Emergency Watershed Protection Program

USDA-Natural Resources Conservation Service

What is it? The NRCS Emergency Watershed Protection (EWP) Program administers Federal assistance on state, tribal, and private lands to relieve imminent hazards to life and property created by a natural occurrence that causes a sudden impairment of a watershed. Natural occurrence includes, but is not limited to, floods, fires, windstorms, ice storms, hurricanes, typhoons, tornadoes, earthquakes, volcanic actions, slides, and drought. A watershed impairment exists when the ability of a watershed to carry out its natural functions is reduced to the point where an imminent threat to health, life, or property is created.

What type of assistance is available? Technical assistance to plan, design, and contract emergency measures. Financial assistance for installation/construction. Subject to agreement between NRCS and sponsor.

Who can apply? Public and private landowners are eligible for assistance but must be represented by a project sponsor. Sponsors include legal subdivisions of the State, such as a city, county, general improvement district, conservation district, or any Native American tribe or tribal organization.

Application deadline? Project sponsor must submit a written request for assistance to the NRCS State Conservationist within 60 days of the event or when the site becomes accessible.

What are the requirements to apply?

1. **Disaster Declaration:** Presidential Declaration or Local Natural Disaster Declaration by the State Conservationist is required.
2. **Matching funds:** 25% cost share for construction. 10% cost share if NRCS determines that an area qualifies as a limited resource area.
3. **Sponsor Obligations:**
 - a. Provide land rights to implement repair work
 - b. Secure all necessary permits
 - c. Furnish local cost share
 - d. Accomplish required works of improvement to remove the imminent threat to life and property
 - e. Perform any necessary operation and maintenance

How long will the assistance last? Construction must be complete within 220 days for emergency project and 10 days for exigency projects from the date of funding availability.

Contact Phone Number: (406) 587-6811

Website: <https://www.nrcs.usda.gov/programs-initiatives/ewp-emergency-watershed-protection>

USACE Regulatory Permitting
U.S. Army Corps of Engineers (USACE)

What is it? USACE can approve special permitting procedures in emergencies. An “emergency” is a situation which would cause an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a period less than the normal time needed to process the application under standard procedures. The emergency work proposed under the permit should be the minimum to resolve the emergency. The USACE may not view an action as an emergency if the applicant has known of the deficient condition and the need for work but has not attempted to secure permits and to conduct the work promptly.

For projects that do not qualify as emergencies, the USACE may initiate “expedited” (non-emergency) authorization procedures. In other cases, the proposed work will be subject to standard permit processing procedures appropriate for the nature and location of the work.

Who can apply? Any individual or agency considering an action that would require a USACE permit.

What type of assistance is available? Direct Service

Application deadline? You must immediately notify the USACE Regulatory Branch of the need for emergency work and obtain authorization, if applicable, before doing the work.

What are the requirements to apply?

4. **State or Federal Declaration:** No disaster declaration required. The USACE has sole responsibility to determine if the proposed work follows definition of an emergency.
5. **Burned landowner:** No restriction
6. **Matching funds:** Flat permit fee required (\$100)

How soon can this start? The process may take from a few hours to up to a week. If the project does not qualify as an emergency and expedited authorization procedures take place, the process may take several weeks to complete. Work cannot begin until the USACE gives approval.

How long will the assistance last? Following the emergency, additional coordination with the Corps will likely be required to remove or modify the emergency work, to obtain authorization for additional proposed work to complete the final project, or for compensatory mitigation for unavoidable impacts to waters of the United States. A final permit approval may take over 6 months to obtain.

Office Location: 10 West 15th Street, Suite 2200

Contact Phone: (406) 441-1375

Website: <https://www.nwo.usace.army.mil/Locations/District-Offices/Montana/>

Authority: Permitting authority comes from Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Emergency procedures are described in 33 CFR Part 325.2€ (4).

Emergency Assessment of Post-Fire Debris-Flow Hazards

United States Geological Survey (USGS)

What is it? The United States Geological Survey (USGS) delivers geospatial data describing post-fire debris-flow hazards for select wildfires in the Western U.S., including estimates of the probability and volume of debris flows that may occur in response to design storms. USGS makes the assessments at the scale of the drainage basin and individual stream segment. They are typically completed to support Burned Area Emergency Response (BAER) team efforts (see page 25), though BAER teams also have an option of using the Forest Service’s “Debris Flow Potential Model”, which was developed jointly with BLM. The assessments are specific to debris-flow hazards; hazards from flash-flooding are not described in this study and can be significant.

Due to technical and resource limitations, the USGS may not be able to accommodate requests for assessments. Priority is placed on requests for hazard assessments for major wildfires on federally owned public lands for which a formal BAER process has been established. Case by case assessments are used for small wildfires, wildfires that occurred in prior fire seasons, and wildfires outside federally owned public lands. Debris-flows are typically not a threat in areas of low topographic relief.

Who can apply? Any government agency

What type of assistance is available? Direct Service

Application deadline? There is no formal deadline to apply for this program (see other considerations above).

What are the requirements to apply? The debris-flow hazard assessments rely on digital data describing differenced normalized burn ratio and field-validated estimates of soil burn severity. The request must include these data.

1. **State or Federal Declaration:** No declaration required
2. **Burned landowner:** No restriction (see other considerations described above)
3. **Matching funds:** None required

How soon can this start? Typically, within a week after the necessary data are provided to the USGS.

How long will the assistance last? Until the geospatial data are delivered, typically within in two weeks.

Website Link: <https://www.usgs.gov/natural-hazards/landslide-hazards>

Hazard Mitigation Grant Program (HMGP)

Federal Emergency Management Agency (FEMA)

What is it? The purpose of the HMGP is to help communities implement hazard mitigation measures following a Presidential major disaster declaration. Hazard mitigation is any action taken to reduce or eliminate **long-term** risk to people and property from natural hazards. Mitigation planning is a key process used to break the cycle of disaster damage, reconstruction and repeated damage.

FEMA pays a portion of project costs (75%) and successful sub-applicants provide a non-federal share (25%). Payment of funds comes to the successful applicant as a reimbursement of costs submitted at least quarterly throughout the life of the project.

Homeowners and business owners can also participate in this HMGP offering but must be represented by an eligible applicant. HMGP is available statewide after initial, priority consideration in the declared counties.

Who can apply? State agencies, local governments, Not-for-Profit entities, special districts, and Tribal governments.

What type of assistance is available? Grant funding via an application process.

Application deadline? The deadline to apply for this program occurs within the year following the declaration.

What are the requirements to apply?

1. **Presidential Declaration:** A presidential disaster declaration is required. After that time, a call for letters of interest will be announced.
2. **Must have a FEMA-approved Natural Hazard Mitigation Plan in place throughout the life of the project.** If you have no current, approved plan, please contact the State Hazard Mitigation Officer at Office of Emergency Management.
3. **Matching funds:** 25% of total project cost must be matched. This can be hard or soft match. Assurance that the match is available is a requirement of the grant.
4. **Other requirements:** Environmental, cultural and historic impacts must be explored. A Benefit-Cost Analysis, utilizing the latest FEMA BCA tool, is also required. Other elements are also required and are described in the grant application packet.

How soon can this start? The State and FEMA review the applications. Those applications considered complete are considered for award. The State prioritizes projects submitted, and FEMA makes the award. Environmental Analysis or historic and cultural considerations can delay award, depending on difficulty of project and whether digging will occur.

How long will the assistance last? The project must be completed within 3 years of the application due date. Projects can be phased but need to be vetted with the State Hazard Mitigation Officer.

Contact Name: State Hazard Mitigation Officer

Contact Information: MTDES@mt.gov, (406) 324-4777

Website: <http://readyandsafe.mt.gov/Home/Articles/hazard-mitigation-grant>

Flood Mitigation Assistance (FMA)

Federal Emergency Management Agency (FEMA)

What is it? FMA provides funding to states, U.S. territories, federally-recognized tribes and local communities for projects and flood planning that reduces or eliminates long-term risk of flood damage to structures insured under the NFIP. FMA funding is also available for management costs. Funding is appropriated by Congress annually.

Sub-applicants submit flood mitigation planning and project sub-applications to their state during the open application cycle.

Planning sub-applications submitted for consideration for FMA funding must only be used to support the flood hazard portion of State, tribal, or local mitigation plans to meet the requirements outlined in 44 CFR Part 201 Mitigation Planning.

Projects submitted for consideration for FMA funding must be consistent with the goals and objectives identified in the current, FEMA-approved state or tribal (standard or enhanced) hazard mitigation plan along with the local or tribal hazard mitigation plan for the jurisdiction in which the activity is located.

Funding is limited and FEMA Headquarters must make difficult decisions as to the most effective use of grant funds. FEMA awards FMA funds to state, U.S. territory, and federally-recognized tribal applicants, who in-turn provide sub-awards to local government sub-applicants.

Once FEMA reviews planning and project applications for eligibility and completeness, FEMA makes funding decisions based on the agency's priorities for the most effective use of grant funds and the availability of funds posted in the Notice of Funds Opportunity announcement on [Grants.gov](https://www.grants.gov). **The FMA program is a highly competitive grant program.**

Who can apply? State agencies, local governments, special districts, and tribal governments.

What type of assistance is available? Grant funding via an online application process; nationally competitive.

Application deadline? This is an online application through eGrants. The application period is three months, however, the state takes one month to conduct reviews and put the grant package together to submit for this funding opportunity. Sub-applicants need to be readily available to respond to requests for information within that three month period.

What are the requirements to apply?

- 1. Notice of Funding Opportunity (NOFO):** When the funding opportunity is available, FEMA will announce approximately one month before the application period opens (usually in mid-summer, through early fall). At that time, sub-applicants are encouraged to request from the State Hazard Mitigation Officer a user profile for eGrants. Once the user profile is approved, the State will then allow the sub-applicant to start the application process.
- 2. Must have a FEMA-approved Natural Hazard Mitigation Plan (NHMP) in place throughout the life of the project.** If you do not have a current, approved plan, please contact the State Hazard Mitigation Officer. Project proposals must be consistent with the goals and objectives identified in the NHMP in which the activity is located.

3. **Matching funds:** 0% - 25% of total project cost must be matched (depends on type of structures involved in project area). This can be hard or soft match. Assurance that the match is available is a requirement of the grant.
4. **Other requirements:** Hydraulic/Hydrologic processes, as well as environmental, cultural and historic impacts must be explored. A Benefit-Cost Analysis, utilizing the latest FEMA BCA tool, is also required. Other elements are also required, and the user will be prompted through all of the questions as they proceed through the screens associated with the online application. Communities must be participating in the National Flood Insurance Program (NFIP).

How soon can this start? After the application is submitted, the applications are sent to a National Review Team. Complete applications are considered for further review, and potential award. The State prioritizes projects submitted, and FEMA makes the award. Environmental Analysis or historic and cultural considerations that may result as a part of the project activities could delay award, depending on difficulty of project and whether or not digging will occur.

How long will the assistance last? The project must be completed within 3 years of the application due date.

Contact Name: State Hazard Mitigation Officer

Contact Email: MTDES@mt.gov

Contact Phone Number: 406-324-4777

Website: <http://readyandsafe.mt.gov/Home/Articles/fma-2019-pdm-2019>

Pre-Disaster Mitigation (PDM)

Federal Emergency Management Agency (FEMA)

What is it? The PDM Program is designed to assist states, U.S. territories, federally-recognized tribes, and local communities in implementing a **sustained** pre-disaster natural hazard mitigation program. The goal is to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on federal funding in future disasters. This program awards planning and project grants and provides opportunities for raising public awareness about reducing future losses before disaster strikes. Mitigation planning is a key process used to break the cycle of disaster damage, reconstruction, and repeated damage. PDM grants are funded annually by Congressional appropriations and are awarded on a nationally competitive basis. However, there is a state set-aside amount allowed for certain project proposals.

Local governments are eligible sub-applicants and can sponsor applications on behalf of homeowners to submit to the applicant. Sub-applicants (i.e., local governments) submit mitigation planning and project sub-applications to their State Hazard Mitigation Officer during the open application cycle. After reviewing planning and project applications to determine if they meet the program's requirements, the applicants (i.e., states, U.S. territories, or federally-recognized tribal governments) prioritize and forward the planning and project applications in a PDM grant application to FEMA.

Once FEMA reviews planning and project applications for eligibility and completeness, FEMA makes funding decisions based on the agency's priorities for the most effective use of grant funds and the availability of funds posted in the Notice of Funds Opportunity announcement on [Grants.gov](https://www.fema.gov/grants). **The PDM program is a highly competitive grant program.**

Who can apply? State agencies, local governments, special districts, and tribal governments.

What type of assistance is available? Grant funding via an online application process; nationally competitive.

Application deadline? This is an online application through eGrants. The application period is three months, however, the state takes one month to conduct reviews and put the grant package together to submit for this funding opportunity. Sub-applicants need to be readily available to respond to requests for information within that three month period.

What are the requirements to apply?

- 1. Notice of Funding Opportunity (NOFO):** When the funding opportunity is available, FEMA will announce approximately one month before the application period opens (usually in mid-summer, through early fall). Sub-applicants are encouraged to request from the State Hazard Mitigation Officer a user profile for eGrants. Once the user profile is approved, the State will then allow the sub-applicant to start the application process.
- 2. Must have a FEMA-approved Natural Hazard Mitigation Plan (NHMP) in place throughout the life of the project.** If you have no current, approved plan, please contact the State Hazard Mitigation Officer. Project proposals must follow the goals and objectives identified in the NHMP in which the activity is located.
- 3. Matching funds:** 25% of total project cost must be matched. This can be hard or soft match. Assurance that the match is available is a requirement of the grant.

- 4. Other requirements:** Environmental, cultural and historic impacts must be explored. A Benefit-Cost Analysis, utilizing the latest FEMA BCA tool, is also required. Other elements are also required, and the user will be prompted through the questions as they proceed through the screens associated with the online application.

How soon can this start? After the application is submitted, the applications are sent to a National Review Team. Those applications considered complete are considered for further review, and potential award. The state prioritizes projects submitted, and FEMA makes the award. Environmental Analysis or historic and cultural considerations that may result as a part of the project activities could delay award, depending on difficulty of project and whether or not digging will occur.

How long will the assistance last? The project must be completed within 3 years of the application due date.

Contact Name: State Hazard Mitigation Officer

Contact Email: MTDES@mt.gov

Contact Phone Number: 406-324-4777

Website: <http://readyandsafe.mt.gov/Home/Articles/pre-disaster-mitigation-grant>

Authority: Section 203 of the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#)