

Post-Wildfire Flood Risk and Sediment Reduction: Instructions

**The following information is intended for guidance only and is not a request for information. The following template is only intended to help the reader understand the FEMA Hazard Mitigation Grant Program (HMGP) application process.*

This document provides instructions on how to complete the application for a post-wildfire flood risk and sediment reduction project under FEMA's Hazard Mitigation Grant Program (HMGP). This application is intended to be used only for post-wildfire flood risk and sediment reduction projects, including modifying or removing culverts to allow drainage to flow freely, adding drainage dips and constructing emergency spillways to keep roads and bridges from washing out during floods, and constructing straw, rock, or log dams in small tributaries to prevent flooding.

The user can provide the requested information by adding text or comments to the form, or by including the information in a separate document with their subapplication.

Additional technical guidance is provided in the attached Post-Wildfire Flood Risk Reduction Mitigation Technical Review Job Aid (Technical Job Aid) and Flood Risk Reduction: Information Required for Environmental Review (EHP Job Aid), which are referenced throughout these instructions.

Phased Projects: In general, sufficient technical information is provided by the applicant or subapplicant to allow FEMA to make an eligibility determination on a subapplication. The costs to obtain this information are generally eligible as pre-award costs. However, in rare circumstances, it is beyond the subapplicant's technical and financial resources to provide the complete technical information required for a full eligibility or EHP review of a complex project. The applicant and FEMA may provide technical assistance to the subapplicant to develop this complete body of technical data by approving a subapplication to complete a Phase I design, engineering, EHP, or feasibility study. The use of a Phase I study should be limited to complex projects that require technical or EHP data beyond the scope of that generally required for a typical HMGP project. See HMA Guidance Part VIII, A.13 for additional information. Subapplicants interested in a phased project should contact their State Hazard Mitigation Officer as soon as possible.

A. Applicant/Subapplicant Information

1. **Applicant/Subapplicant Legal Name:** Enter your organization's legal name.
2. **Organizational Unit:** Enter the name of the department or agency within your organization that is pursuing the grant.
3. **Project Title:** Enter the name of the project title. The title should be short but descriptive (e.g., Town of High Winds Reseeding – Post-Wildfire Project).
4. **Applicant/Subapplicant Type:** Enter the type of applicant or subapplicant; refer to Hazard Mitigation Assistance (HMA) Guidance (Part III, Sections A and B) for information on Eligible Applicants and Subapplicants.



5. **Proposed Project Total Cost:** Enter the total cost of the project in the first field provided. In the fields beneath that, indicate the percentage and dollar amount of both the federal and local shares for the project.
6. **Certifications:** Read the statement provided and enter the requested information to certify the Applicant/Subapplicant reviewed and concurred with the HMGP program requirements.
7. **Mitigation Plan:** Mark the appropriate box—Yes or No. If Yes was marked, provide the specified information for the Local and State, Territorial, or Tribal Mitigation Plan. Refer to HMA Guidance (Part III, Section E.5) for information on hazard mitigation plan requirements.
8. **National Flood Insurance Program:** Mark the appropriate box—Yes or No. HMGP mitigation project subapplications for projects sites within the Special Flood Hazard Area are eligible only if the jurisdiction in which the project is located is participating in the program.
9. Enter the **Tax ID Number**, five-digit Federal Information Processing Standards (**FIPS**) code, six-digit **Community Identification Number**, and Data Universal Numbering System (**DUNS**) number for the Applicant/Subapplicant.
10. Enter the **U.S. Congressional District** for your jurisdiction, if applicable.
11. Enter the **State Legislative District** for your jurisdiction, if applicable.
12. **Primary Point of Contact:** Enter the contact information for the person coordinating the implementation of this grant throughout the application process.
13. **Alternate Point of Contact:** Enter the name and contact information for the alternate point of contact who can coordinate the implementation of this grant when the primary point of contact is not available.
14. **Authorized Applicant/Subapplicant Agent:** Enter the name and contact information for the authorized agent for your organization. The Authorized Applicant/Subapplicant Agent **MUST** be the chief executive officer, mayor, or person of comparable status who is authorized to sign contracts, authorize funding allocations or payments, etc.

B. Project Narrative and Scope of Work

Mitigation projects funded by HMA must be both technically feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. Effective mitigation measures funded with an HMA grant provide a long-term or permanent solution to a risk from a natural hazard.

1. Provide a detailed description of the project purpose and post-wildfire flood and sedimentation risk being mitigated. Describe the need for the project and how the project will reduce/eliminate the risk of future damage and protect individuals, structures, and/or infrastructure in terms of mitigation of post-wildfire flood and sedimentation risk. Describe past wildfire events that have affected the proposed properties. Please include information on past damages and the federal disaster declaration number, if applicable. See **Step 1** of the **Technical Job Aid** for additional guidance.
2. Provide a project narrative clearly describing the existing conditions of the project site, the area and population the project will benefit, the proposed mitigation activity, and the mechanism(s) to reduce post wildfire flood and sedimentation risk (i.e., how will the proposed project mitigate the risk). Include the following information:
 - Provide the location of the proposed post wildfire flood risk and/or sediment reduction project: address with latitude/longitude in decimal format to four decimal places.

- Existing conditions in the project area, including existing drainage structures, if any, and structures and infrastructure impacted by flooding/sediment. Post-wildfire flood risk and sediment reduction projects should describe the conditions at the current conditions post wildfire.
- Identify the structure(s) and/or infrastructure and population that are at risk and will benefit from the project.
- Proposed mitigation activity and how the project will provide flood and/or sediment reduction under the current post-wildfire watershed conditions. The narrative should include mitigation efforts based on the existing conditions and the level of reduction the project will provide.

Mitigation projects funded by HMA must be both technically feasible and effective for mitigating the risks of the hazard(s) for which the project was designed. A project's technical feasibility is demonstrated through conformance with accepted engineering practices, established codes, standards, modeling techniques, or best practices. Effective mitigation measures funded under HMA provide a long-term or permanent solution to a risk from a natural hazard.

Post-wildfire flood risk and sediment reduction projects must be designed in conformance with the design criteria found in FEMA Policy: Hazard Mitigation Grant Program – Post Fire Policy #207-088-2 (2018).

3. Provide a detailed scope of work. Clearly explain the proposed mitigation activity, identify the tasks required to complete the proposed activity, and define the tasks to be accomplished in clear, concise, and meaningful terms. Describe the extent of the post-wildfire flood risk and/or sediment reduction project and the locations of all permanent and temporary activities. Ensure that you discuss access routes, vehicles and equipment, and staging and storing of materials, as applicable. Identify ownership of the property where the project will take place. The scope of work should include key milestones and coincide with the design information. Describe construction activities and permitting requirements. Provide the design criteria for which the project will comply to, including relevant code(s) and standard(s). Clearly define the level of protection the project will provide. See **Step 1** of the **Technical Job Aid** and **Section 1** of the **EHP Job Aid** for additional guidance and required information.
4. Describe how the scope of work solves a problem independently or is a functional portion of a solution where there is verification that the overall project is being completed. Supporting documentation must be provided within the application package.
5. Describe all activities (both temporary and permanent) that would require ground disturbance. Include the length, width, and depth of the ground disturbance. If the area has been previously disturbed, list the type of disturbance that previously occurred (e.g., pavement, existing underground utility lines, burn scar).
6. Provide a map or image (e.g., geographic information system [GIS] file or Google Earth .kmz file) that clearly shows the boundaries of the project area and on-the-ground elements such as ground disturbance areas, access routes, and equipment staging areas. Identify ownership of the property or properties where the project will take place. If your project area has a complex boundary, a GIS or .kmz file is preferred.
7. Complete application should include technical data to support the scope of work. Briefly describe the supporting documentation included in the application package. Describe any engineering analyses, drawings, or plans included in the project documentation. Define the codes and standards the mitigation measure will adhere to. Specify if signed/stamped design drawings match the project scope and level of protection provided, or are conceptual designs (to be finalized later) provided? Describe and provide copies of technical data to support the

proposed level of protection. List all documentation that will be attached to this application that will support the technical feasibility of this project such as engineering reports, project plans, and/or project maps and photographs. See **Step 2** of the **Technical Job Aid** for more information on what technical information is required.

8. Describe if there will be upstream or downstream impacts due to the project being implemented. For projects impacting the floodplain, a hydraulic and hydrologic (H&H) analysis or engineer's statement regarding upstream and downstream impacts will need to be accounted for in the benefit-cost analysis (BCA). This may be a Phase 1 Deliverable (See the Phased Projects call out box) if the project is phased. See **Step 2** of the **Technical Job Aid** for additional information about potential project impacts.
9. If the project would remove vegetation for any reason, describe the type and amount or area of vegetation (e.g., two oak trees, one-quarter acre of turf grass). Describe how vegetation would be removed, if applicable (e.g., root ball removal, flush cut, dug up, chemical weed killer). If using herbicides, describe best management practices for their use. See **Section 3H** in the **EHP Job Aid**. Estimate during which season(s) or months vegetation removal would occur.
10. Provide a few representative photographs of the surrounding area to the north, south, east and west of the project area (**Section 2A** of the **EHP Job Aid**).

C. Alternatives Considered

Mitigation project alternatives are required as part of application development. Indicate at least three alternative actions that were considered in the planning process:

1. No Action Alternative and its consequences.
2. Alternative that was considered but not selected, and why.
3. Additional alternative actions considered but not selected (not required).
4. The Proposed Action alternative is the project you are proposing in the application; explain why it is the most practical, effective and environmentally sound alternative.

Step 1 of the **Technical Job Aid** and **Step 1** of the **EHP Job Aid** contain additional guidance.

D. Environmental Planning and Historic Preservation Considerations

Projects potentially could impact nearby physical, cultural (historical and archaeological), biological, and/or social resources. Below are questions about potential impacts your project may have on these resources. Please note that not all of these may be applicable to your project. See the **EHP Job Aid** for more details.

1. Provide an inventory of the physical addresses of the structures (or adjacent structures) and/or infrastructure to be protected, or a general depiction of the location of the structure locations/project area shown as a polygon on a map or GIS file (**Section 2B** of **EHP Job Aid**).
2. Has the public been notified or provided input? If so, provide dates and method of outreach. If not, describe any planned public engagement activities for the project. (See **Section 3A** of **EHP Job Aid**.)
3. Describe any agency coordination and permits obtained from federal, state, or local agencies to implement the project. Include copies of any coordination materials, permit applications, or approvals. (See **Section 3B** of **EHP Job Aid**.)

4. Provide any studies that have been conducted for the project or for projects that were recently built nearby. Studies could include evaluations of cultural resources (e.g., historical, archaeological) or environmental resources (e.g., threatened and endangered species, wetlands, hydrology). (See **Section 3C of EHP Job Aid**.)
5. If the project is in a floodplain, describe the activities that would occur or be located in the floodplain, if applicable. Show where project activities would overlap with floodplains on a map. (See **Section 3D of EHP Job Aid**.)
6. Describe any surface waters in or near the project area (e.g., ponds, lakes, rivers, streams, wetlands, other waterbodies). Describe any measures that would be used to avoid waterbodies or avoid impacting water (e.g., setbacks, silt fence). Show where project activities would overlap with wetlands or other water bodies on a map. (See **Section 3E of EHP Job Aid**.)
7. Describe any known hazardous or contaminated materials at the project site including underground tanks. Describe how underground tanks (e.g., fuel, septic) would be removed or decommissioned in place. If the project requires the use of hazardous materials (including herbicides), describe their use and best management practices to minimize environmental exposure. (See **Section 3F of EHP Job Aid**.)
8. Would the project involve the use of imported fill? If yes, describe the type and source of the fill material. (See **Section 3G of EHP Job Aid**.)
9. List any best management practices that would be used during project construction. (See **Section 3I in EHP Job Aid**.)

E. Operations and Maintenance Plan

1. Indicate who (department or position type) will be responsible for maintaining the soil stabilization once the project is complete. Describe the maintenance activities and how frequently they will occur.
2. Provide an estimated cost for annual maintenance of the project. Describe how costs were estimated and attach relevant documentation.

F. Estimated Work Schedule

Specify the duration of each process component required to complete the project. Although the components' occurrences are not necessarily sequential and activities may be carried out concurrently, the total project timeline cannot exceed the period of performance for HMGP, which is 36 months. For additional guidance, see **Step 3** of the **Technical Job Aid**.

G. Budget Estimating

1. **Costing Methodology:** Indicate which method(s) were used to determine the project costs. Choose whether the estimates were obtained from other projects done in the area of similar scope, an online estimation tool, or quotes provided by an outside source. If none of these were used, please choose "Other" and describe the methodology used to develop the cost estimate. Include backup documentation for the method(s) used in your application package. For additional guidance, see **Step 4** of the **Technical Job Aid**.
2. **Cost Estimate:** The jurisdiction must ensure that all project costs are reasonable and necessary for the activity according to 2 CFR § Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. For additional guidance, see **Step 4** of the **Technical Job Aid**.

All costs must be included in the cost estimate, to include the nonfederal portion and all pre-award costs. Pre-award costs should be labeled as such. Pre-award costs are costs directly related to developing the application or subapplication may be funded through HMA as funds are available. Such costs may have been incurred, for example, to develop a BCA, to gather EHP data, for preparing design specifications, or for workshops or meetings related to development and submission of HMA applications and subapplications.

3. **Pre-Award Costs:** If the Subapplicant has or will be incurring eligible pre-award costs, these must be included as separate line items in the project budget and labeled as pre-award costs.

Include all cost categories with quantities, units of measure, cost per unit, and total cost by line item. All costs should be detailed and cannot contain any lump sums. The cost estimate must include a line-item breakdown of costs associated with all elements described in the scope of work and budget narrative. Personnel hours should be detailed by position titles, estimated number of hours to complete the project, and estimated cost per hour for that position including fringe benefits and all other labor cost components.

Populate the table provided in the application or attach additional sheets, as needed, to provide all project costs in the application. Below are suggested tasks/activities:

- Pre-Award costs (must have occurred after the declaration date of the relevant disaster)
- Advertisement/bids
- Force account and/or contract labor
- Design fees and other architectural and engineering services
- EHP compliance
- Permitting
- Survey/mapping
- Hydrologic and hydraulic analysis
- Soil testing
- Materials
- Construction components and oversight
- Green infrastructure components
- Supplies
- Travel
- Contingency cost (no more than 5 percent of total project cost)
- Site preparation
- Inspection and construction costs
- Material/debris disposal costs

4. **Budget Narrative:** Provide a budget narrative with explanations, justifications, and line-item details of the project costs. If needed, indicate in box that the narrative is in an attachment to the application and provide with application submittal. Itemize by Pre-Award, Phase 1, and Phase 2, as appropriate.

The budget narrative should explain how costs were derived, including any details not in the line items. For additional guidance, see **Step 4** of the **Technical Job Aid**.

5. Describe the items included in the contingency cost. Contingency costs are often included in the cost estimate; however, they can be no more than 5 percent of the total project costs. A contingency cost should be included as a line item in the budget section of a project application. As with other line items in the budget, the subapplicant should justify the contingency estimate based on the nature of the proposed project. For more information about contingency costs, see Part VI. D.3.4 of the HMA Guidance.

H. Nonfederal Funding Share (25% of Total Planning Grant Costs)

List all sources and amounts used in the nonfederal share, including all in-kind services. In-kind services may not exceed the 25% nonfederal share. For each source, indicate the name of the source agency, describe the type of funding, and the amount.

Attach letters of funding commitment for each source.

I. Cost-Effectiveness

The BCA should be developed in accordance with **Step 9** of the **Technical Job Aid**. The Technical Job Aid will provide additional guidance for the development the BCA and the supporting documentation required for the BCA.

1. **Cost-Effectiveness Methodology:** Indicate which methodology was used to evaluate cost-effectiveness for the project. Select the appropriate BCA approach for your project. If Benefit-Cost Analysis Software was used, indicate the Benefit-Cost Ratio.

Post-wildfire flood risk and/or sediment reduction may be eligible for predetermined benefits and a full BCA may not be needed, see **Step 9 of the Technical Job Aid** to determine if predetermined benefits apply to your project.

The BCA software can be found at <https://www.fema.gov/benefit-cost-analysis>, including explanations of how to use the tool. It is a best practice to provide a BCA narrative as supporting documentation. The BCA narrative should describe the methodology, assumptions, and justifications for all inputs to the subapplication documentation. All inputs for the BCA must be documented unless a FEMA standard or default value is used.

The following is a checklist of all items in the BCA (at a minimum) that should be justified in the BCA narrative:

- Project Cost
- Project Useful Life
- Annual Maintenance Cost
- Before-Mitigation Damages (including how recurrence intervals were calculated)
- After-Mitigation Damages (including how recurrence intervals were calculated)
- Environmental Benefits (if applicable)
- Loss of Function of Utilities, Roads and Bridges, Critical Facilities, and/or Nonresidential Buildings

2. Describe the BCA methodology and list the documents attached to the application that support the BCA.

Indicate the Project Useful Life (PUL), for the mitigation project. Provide documentation if the standard PUL from the BCA information tab is not used. The PUL value cannot be higher than the highest acceptable limits as indicated in the PUL table in the BCA Toolkit Help Menu.

Maintenance costs for the project must be included in the BCA. Attach an assurance letter from the signature authority that tells how much annual maintenance costs will be, what position or department will be responsible for maintenance, and how often it will be performed. The maintenance cost should cover the necessary maintenance for the retrofit to remain functional for the entire project useful life.

J. Required Documentation Attached

Indicate all attachments to be included with this form. Please also indicate any additional documentation in the box below.

- Site photos
- Property Site Maps: Provide map(s) showing the project location(s). If the project includes multiple structures, show the project boundaries. **See Step 5 of the Technical Job Aid.**
- FIRMette with property locations clearly marked. FIRMettes can be accessed in the FEMA Flood Map Service Center (<https://msc.fema.gov/portal/home>).
- Appropriate BCA documentation, including an export of the BCA tool and PDF of the BCA Report from the toolkit (if applicable) and all supporting documentation
- Engineering studies, such as a hydraulic and hydrologic study (if available).
- Project drawings (if available).
- Detailed budget with additional budget narrative and documentation.
- Documentation to support annual maintenance costs, including an assurance letter from the signature authority that indicates annual maintenance costs, what position or department will be responsible for maintenance, and how often it will be performed.
- Schedule.
- Environmental Planning and Historic Preservation documents:
 - Public outreach documentation
 - Obtained permits
 - Documents of coordination with regulatory agencies
 - Environmental and historic resource studies
 - Maps that include known surface water and vegetation removal locations
- Funds commitment letter, which lists the sources and amounts used in the nonfederal share requirement, including all in-kind services. Fund commitment letters are also required from nonapplicant sources.

- Assurances (FEMA Form 112-0-3C or 20-16c (Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements), and SF-LLL (Disclosure of Lobbying Programs) if applicable)
- Completed SF-424 (Application for Federal Assistance), signed by the authorized representative of the jurisdiction
- Completed SF-424d (Construction Programs) and SF-424c (Budget Information for Construction Programs)
- Designated Authorized Agent documentation designating authority for the signatory to sign contracts, authorize funding allocations or payments, or apply for grant funding that is signed by the ruling body of the applicant
- If there will be additional items not listed, please indicate those items in the comment box below this section.