

Post-Wildfire Soil Stabilization: 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 soil stabilization project under FEMA's Hazard Mitigation Grant Program (HMGP). This application is intended to be used only for post-wildfire soil stabilization projects, including reseeding ground cover with quick-growing or native species, planting grass to prevent the spread of noxious weeds, and mulching with straw or chipped wood.

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 Soil Stabilization Mitigation Technical Review Job Aid (Technical Job Aid) and Environmental Planning and Historic Preservation Soil Stabilization: Information Required for Environmental Review (EHP Job Aid), which are referenced throughout these instructions.

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/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 risks being mitigated, including damage history of the project area, if available. 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 soil stabilization risk. Please include information on past damages and the federal disaster declaration number, if applicable (**Step 1** of the **Technical Job Aid**).
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 stabilize the slope. Include the following information:
 - Provide the location of the proposed soil stabilization project: address, latitude/longitude in decimal format to four decimal places.
 - Describe the existing conditions at the site, specifically defining the problem and the extent of the erosion/instability. Describe why the project is needed.
 - Identify the structure(s) and/or infrastructure and population that are at risk and will benefit from the project.
 - Describe the proposed mitigation activity and the mechanism to stabilize the slope (e.g., reseeding and planting ground cover, mulching with straw and/or chips, planting grass to prevent noxious weeds).

Steps 1 and 6 of the **Technical Job Aid** and **Section 1** of the **EHP Job Aid** contain additional guidance on project development.

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/permanent solution to a risk from a natural hazard.

Post-wildfire soil stabilization 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 soil stabilization 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 steps required to implement the mitigation activity. Describe the tasks required to complete the proposed activity, and define the tasks to be accomplished in clear, concise, and meaningful terms. This may include reseeding ground cover with quick-growing or native species, planting grass to prevent the spread of noxious weeds, or mulching with straw or chipped wood. Provide the design criteria for which the project will comply to, including relevant code(s) and standard(s). **Steps 1 and 5** of the **Technical Job Aid** and **Section 1** of the **EHP Job Aid** contain additional guidance and required information.
4. Describe how the scope of work solves the soil instability problem within the project area. Explain how the soils would be stabilized (e.g., reseeding and planting ground cover, mulching with straw and/or chips, planting grass to prevent noxious weeds).
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. A 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. Describe and provide copies of technical data to support the proposed level of protection. Include product data information (design sets, studies and analysis, planting plan and species list), indicating standards for seed of quick-growing or native species, grasses, mulches, and other protective systems. List all documentation attached to this application that supports the technical feasibility of this project. **Step 2** of the **Technical Job Aid** contains 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 is required.
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 (**Section 3H** in **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 could potentially impact nearby physical, cultural (historical and archaeological), biological, and/or social resources. Below are questions about potential impacts the project may have on these resources. Please note that not all of these may be applicable to your project. The **EHP Job Aid** contains more information.

1. Provide an inventory of the physical addresses of the structures and/or infrastructure to be protected and any adjacent structures, 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 the **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 (**Section 3A** of the **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 approval (**Section 3B** of the **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 the **EHP Job Aid**.
5. If the project is in a floodplain, describe the activities that would occur or be located in the floodplain. Show where project activities would overlap with floodplains on a map (**Section 3D** of the **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, cofferdams, silt fence). Show where project activities would overlap with wetlands or other water bodies on a map (**Section 3E** of the **EHP Job Aid**).
7. What are the soil and topographic conditions in the project area? Describe any erosion conditions in the project area or conditions that may lead to erosion or slope failure (**Section 3F** of the **EHP Job Aid**).
8. 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 (**Section 3G** of the **EHP Job Aid**).

9. Would the project involve the use of imported fill? If yes, describe the type and source of the fill material (**Section 3H** of the **EHP Job Aid**).
10. 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. Estimate during which season(s) or months vegetation removal would occur. Would any special techniques be used to ensure survival of the plants/seeds (e.g., mulch, irrigation, protective fencing)? (**Section 3I** of the **EHP Job Aid**.)
11. List any best management practices that would be used during project construction (**Section 3J** of the **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. **Step 3** of the **Technical Job Aid** contains additional guidance.

G. Budget Estimating

1. **Costing Methodology:** Indicate which method(s) were used to determine the project costs. Choose whether the estimates were obtained from construction contractors and similar vendors, historical data from previous projects/activities (with an inflation factor, as needed), property appraiser, local property tax assessment data, online real estate websites, or other national cost estimating reference. If none of these were used, please choose "Other" and describe the methodology used to develop the cost estimate.
2. **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.
3. **Cost Estimate:** Enter the costs associated with all tasks/activities necessary to complete the project, as applicable. Ensure all tasks/activities match the information included in all other documentation provided with the application. All costs should be detailed and not contain any lump sums. The cost estimate should include a line-item breakdown of costs consistent with all elements described in the Project Narrative and Scope of Work and Budget Estimating sections of this application. **Step 4** of the **Technical Job Aid** contains additional guidance. Common cost categories may include:
 - Pre-Award Costs. These costs must have occurred after the declaration date of the relevant disaster.
 - Advertisement/bids
 - Force account and/or contract labor

- Design fees or other engineering/ geotechnical services
 - EHP compliance
 - Permitting
 - Surveying/mapping
 - Hydrologic and hydraulic analysis
 - Soil testing
 - Site preparation
 - Materials
 - Construction components
 - Supplies
 - Travel
 - Contingency (no more than 5 percent of total project cost)
 - 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.
- The budget narrative should explain how costs were derived, including any details not in the line items. **Step 4** of the **Technical Job Aid** contains additional guidance.
5. Describe the items included in the contingency cost. Contingency cost is often included in the cost estimate; however, it can be no more than 5 percent of the total project costs. 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 cost, 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 Benefit-Cost Analysis (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 BCA software was used, indicate the Benefit-Cost Ratio.

Post-wildfire soil stabilization project, including reseeding ground cover with quick-growing or native species, planting grass to prevent the spread of noxious weeds, and mulching with straw or chipped wood 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 instructions for 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 lists all items in the BCA (at a minimum) that should be justified in the BCA narrative:

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

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 indicates the annual maintenance costs, the position or department 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 PUL.

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. (**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 (if applicable) and all supporting documentation
- Technical data to support the scope of work
- Detailed budget with additional budget narrative if box provided is not sufficient.
- Documentation to support annual maintenance costs
- Schedule
- Environmental Planning and Historic Preservation documents
- Fund commitment letter (also required from nonapplicant sources) that lists the sources and amounts used in the nonfederal share requirement, including all in-kind services
- 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, indicate those items in the comment box below this section