

Flood Risk 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 an elevation project under FEMA's Hazard Mitigation Grant Program (HMGP). This application is intended to be used only for elevation projects applications.

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 Flood Risk Reduction Technical Review Job Aid (Technical Job Aid) and the Environmental Planning and Historic Preservation (EHP) Flood Risk Reduction: Information Required for Environmental Review Job Aid (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 Hazard Mitigation Assistance (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., Everytown Flood Risk Reduction Project).
4. **Applicant/Subapplicant Type:** Enter the type of applicant or subapplicant; refer to 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 nonfederal 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 HMA program requirements.



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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 under HMA provide a long-term or permanent solution to a risk from a natural hazard.

1. Provide a detailed description of the project purpose and risk being mitigated. Describe need for the project and how the project will reduce/eliminate the risk of future damage and protect individuals, structures, and/or infrastructure. Describe past flood events that have affected the proposed properties. Include information on past damages and the federal disaster declaration number, if applicable. See **Step 1** of the **Technical Job Aid**.
2. Provide a project narrative clearly describing the existing conditions of the project site, the proposed mitigation activity, and the structures to be mitigated. Include the following information:
 - Provide the location of the proposed flood risk reduction project: address and latitude/longitude in decimal format to four decimal places.
 - Describe the existing conditions at the site specifically defining the problem, the existing drainage structure(s) if any and the extent of the flooding. Describe why the project is needed.
 - Describe the structure(s) and/or infrastructure that are at risk and will benefit from the project.
 - Describe the proposed mitigation activity and the structure(s) to provide flood risk reduction (e.g., construction or modification of detention and retention ponds, installation or modification of culverts or other stormwater management facilities, construction or modification of floodwalls, dams and weirs, and dry floodproofing).
 - See **Step 1** of the **Technical Job Aid** for additional guidance.

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. See **Step 1** of the **Technical Job Aid** and **Sections 1 and 2** of the **EHP Job Aid** for additional guidance. The scope of work should include the following:
 - Describe the extents of the flood risk reduction project and the structures and infrastructure benefitting from the project.
 - Describe the tasks required to complete the proposed activity, and define the tasks to be accomplished in clear, concise, and meaningful terms.
 - Describe construction activities. If the project would disturb the ground for any reason, Describe the existing condition of the ground surface and include the length, width, and depth of the ground disturbance
 - Describe permitting requirements.
 - Provide the design criteria to which the project will comply, including relevant codes and standards. Clearly define the level of protection the project will provide.
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 mitigation project is being completed. Provide supporting documentation if needed.
5. Provide technical data to support the scope of work.
 - Include technical data to support the scope of work. Briefly describe the supporting documentation included in the application package. See **Step 2** of the **Technical Job Aid** for more information on what technical information is required.
 - Describe and provide copies of technical data to support the proposed level of protection.
 - Describe any engineering analyses, drawings or plans included in the project documentation. Describe and provide copies of technical data to support the level of protection.
 - Provide any engineering analyses, drawings, or plans included in the project documentation.
 - Specify if signed/stamped design drawings match the project scope and level of protection provided, or if conceptual designs (to be finalized later) were used.
6. Describe the upstream and downstream impacts because of the project being implemented. Include all beneficial and adverse impacts to people and structures, including impacted infrastructures.
 - Describe how the project will not cause adverse upstream or downstream impacts owing to the project being implemented. Include discussion of both adverse and beneficial impacts. For projects impacting the floodplain, a hydraulic and hydrologic analysis or engineer's statement regarding upstream and downstream impacts must be accounted for in the benefit-cost analysis (BCA). This may be a Phase 1 deliverable.

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.

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

D. Environmental Planning and Historic Preservation Considerations

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

1. Has the public been notified or provided input? If so, provide dates and methods of outreach. If not, describe any planned public engagement activities for the project. (See **Section 3A** of the **EHP Job Aid**)
2. 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 the **EHP Job Aid**)
3. Describe 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., historic, archaeological) or environmental resources (e.g., threatened and endangered species, wetlands, hydrology). Provide copies if these are available. (See **Section 3C** of the **EHP Job Aid**)
4. If the project is in a floodplain, describe the project activities that would occur or be located in the floodplain, if applicable. Show on a map where project activities would overlap with floodplains. (See **Section 3D** of the **EHP Job Aid**)
5. 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 waterbodies on a map. (See **Section 3E** of the **EHP Job Aid**)
6. Describe any known hazardous or contaminated materials at the project site including underground tanks (e.g., fuel, septic). Describe how underground tanks 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 the **EHP Job Aid**)
7. Would the project involve the use of imported fill? If yes, describe the type and source of the fill material. (See **Section 3G** of the **EHP Job Aid**)
8. 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 months or seasons vegetation removal would occur. Will the project replant or restore vegetation when construction is complete? Describe the plants that would be installed and the equipment and methods to be used. Would any special techniques be used to ensure survival of the plants/ seeds (e.g., mulch, irrigation, protective fencing)? (See **Section 3H** of the **EHP Job Aid**)

9. List any best management practices that would be used during project construction. (See **Section 31** of the **EHP Job Aid**)

E. 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**. Common milestones may include:

- Signing Grant Agreement
- Bidding and Procurement
- Appraisals, Surveys and Title Searches
- Land Acquisition
- Engineering Design
- Permitting
- Project Construction
- Closing Grant

F. Budget Estimating

1. **Costing Methodology:** Indicate which method(s) was 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), public works personnel or other qualified staff from local jurisdiction, or other national cost estimating reference. If none of these were used, choose "Other" and describe the methodology used to develop the cost estimate. For additional guidance, see **Step 4** of the **Technical Job Aid**.

Populate the table, or attach additional sheets as needed, to indicate the project 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 lump sum line items should be avoided. If lump sum line items are included, a detailed description of how the lump sum was estimated should be included in the budget narrative. The cost estimate includes 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 the project, and estimated cost per hour for that position.

2. **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 lump sum line items should be avoided. If lump sum line items are included, a detailed description of how the lump sum was estimated should be included in the budget narrative. 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 the application. For additional guidance, see **Step 4** of the **Technical Job Aid**. Common cost categories may include:

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

3. **Budget Narrative:** Provide a budget narrative with explanations, justifications, and line-item details of the project costs. If needed, indicate in box provided that the narrative is in an attachment to the application and provide the attachment with application submittal. Itemize by pre-award, Phase 1, and Phase 2, as appropriate. Itemize by how many of X at Y price for each category checked.

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**.

4. **Contingency Costs:** 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.

G. 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. FEMA administers cost-sharing requirements consistent with 2 CFR Sections 200.29, 200.306 and 200.434.

H. Operations and Maintenance

1. Indicate who (department or position type) will be responsible for maintaining the flood risk reduction project after the project has ended. Describe what actions they will perform and how often.
2. Provide an estimated cost for annual maintenance of the project. Describe how costs were estimated and attach relevant documentation.

I. Cost-Effectiveness

The BCA should be developed in accordance with **Step 9** of the **Technical Job Aid**. The Technical Job Aid provides additional guidance for developing the BCA, including what supporting documentation is required.

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.

1. Provide the project's benefit-cost ratio. Describe the BCA methodology and list the documents attached to the application that support the BCA.
2. Indicate the project useful life (PUL), for the 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.
3. Maintenance costs for the project must be included in the BCA. Attach an assurance letter from the signature authority that states 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 flood risk reduction project to remain functional for the entire PUL.

J. Required Documentation Attached

Indicate each item listed that will be attached to the application submission. Indicate any additional documentation in the box provided in the form.

- Property site 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**.
- Site photographs. See **Step 6** of the **Technical Job Aid**.
- Figure of site layout

- Documentation for the existing flood risk: FIRMette with property locations clearly marked. FIRMettes can be accessed in the FEMA Flood Map Service Center (<https://msc.fema.gov/portal/home>). If a FIRMette is not available, an independent engineering study may be used. See **Step 7** of the **Technical Job Aid**.
- Documentation should also include post-project flood risk (residual risk). The residual risk should be representative of the project's level of protection detailed in the scope of work. See **Step 8** of the **Technical Job Aid**.
- 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. See **Step 9** of the **Technical Job Aid**.
- Engineering studies and project drawings, if available
- Detailed budget with additional budget narrative if the box provided is not sufficient
- Schedule
- Consultation documentation
 - State Historic Preservation Officers Consultation, required if any of the following applies:
 - Structure is 45 years or older at the time of FEMA review
 - New ground is being disturbed
 - Project is located in a Historic District
- 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
- Public notice documentation, if working in the floodplain (date and media outlet)
- If there will be additional items not listed, please indicate those items in the comment box below this section.