Rehabilitation of High Hazard Potential Dams

Grant Program Guidance

June 2020

FP 104-008-7

FEMA

Federal Emergency Management Agency
Department of Homeland Security
500 C Street, SW
Washington, DC 20472

Foreword

FEMA's Rehabilitation of High Hazard Potential Dams (HHPD) grant program provides technical, planning, design, and construction assistance for eligible rehabilitation activities that reduce dam risk and increase community preparedness.

The purpose of FEMA's *Rehabilitation of High Hazard Potential Dams Grant Program Guidance* is to establish the framework and requirements to implement the HHPD grant program. This Guidance document is incorporated by reference as part of FEMA Policy 104-008-7 as FEMA's official policy on, and interpretation of, the requirements for implementation of FEMA's HHPD grant program. It is a comprehensive document detailing the specific criteria of the program and provides information for eligible applicants on how to apply for HHPD funding for a rehabilitation project. It supplements the information provided in Notice of Funding Opportunity and carefully outlines strategies for the rehabilitation process by interpreting the federal statutes, regulations, and best practices.

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SECTION ONE GRANT PROGRAM BACKGROUND

1.1 AUTHORIZATION AND APPROPRIATION

The Rehabilitation of High Hazard Potential Dams (HHPD) grant program is authorized by 33 United States Code (USC) 467f-2, Rehabilitation of High Hazard Potential Dams. Congressional appropriations provide the funding for the HHPD grant program. Appropriations were originally authorized according to the following schedule:

- $10,000,000 for fiscal years 2017 and 2018;
- $25,000,000 for fiscal year 2019;
- $40,000,000 for fiscal year 2020; and
- $60,000,000 for each of fiscal years 2021 through 2026.

The Department of Homeland Security Appropriations Act, 2020, through Public Law PL 116-93, appropriated $10,000,000 for the HHPD grant program for fiscal year 2020. Future funding levels are dependent on future appropriations. This Guidance document is incorporated by reference as part of FEMA Policy 104-008-7 as FEMA's official policy on, and interpretation of, the requirements for implementation of FEMA's HHPD grant program.

1.2 HHPD GRANT PROGRAM OBJECTIVES

The main objective of the HHPD grant program is to provide technical, planning, design, and construction assistance in the form of grants to non-federal sponsors for rehabilitation of eligible high hazard potential dams.

For the purposes of the HHPD program, the term "rehabilitation" means the repair, replacement, reconstruction, or removal of a dam that is carried out to meet applicable state dam safety and security standards.

Other objectives of the HHPD grant program include:

- Providing financial assistance for rehabilitation of eligible high hazard potential dams.
- Protecting the federal investment by requiring operation and maintenance of the project for the 50-year period following completion of rehabilitation.
- Encouraging state, local, and territorial governments to consider all dam risk in mitigation planning.
- Promoting community preparedness by requiring recipients to develop and implement floodplain management plans that address potential measures, practices, and policies to reduce loss of life, injuries, damage to property and facilities, public expenditures, and other adverse effects of flooding in the area impacted by the project; plans for flood fighting and evacuation; and public education and awareness of flood risks.
- Reducing the potential consequences to life and property of high hazard potential dam incidents.

- Incentivize states to incorporate risk-informed analysis and decision making into their dam safety practice.
- Reducing the overall number of high hazard potential dams that pose an unacceptable risk to the public.
- Promoting a program of emergency action plan (EAP) implementation, compliance, and exercise for high hazard potential dams.
- Reducing costs associated with dam rehabilitation through the deployment of innovative solutions and technologies.

1.3 ORGANIZATION OF GUIDANCE DOCUMENT

This guidance document is organized as follows:

- Section 1, Grant Program Background – Provides background on the HHPD grant program.
- Section 2, Program Eligibility Requirements – Describes general program eligibility requirements; applicant eligibility, subrecipient eligibility; dam eligibility; and project eligibility.
- Section 3, Grant Funding – Describes cost sharing requirements, the funding formula, maximum funding, and general federal funding requirements.
- Section 4, Applying for HHPD Grant Funding – Describes the application process, FEMA's Non-Disaster Grants Management System, and provides submission dates and times.
- Section 5, Application Requirements – Provides information about the requirements for Program Work Plans, Grant Management Plans, Operations and Maintenance Plans, Floodplain Management Plans, Risk-Based Prioritization Methods, and State and Local Mitigation Plans.
- Section 6, Application Review Information – Provides information about the application review process.
- Section 7, Award, Implementation, and Closeout – Highlights grants management requirements from the time an award is made through closeout.

SECTION TWO PROGRAM ELIGIBILITY REQUIREMENTS

In order to apply for and receive grant funding under the HHPD grant program, the applicant must be eligible, the dam must be eligible, and the proposed project must be eligible. Consistent with FEMA Policy 104-008-7, the eligibility requirements are described in this section.

2.1 APPLICANT AND SUBRECIPIENT ELIGIBILTY

This section defines applicants and subrecipients and their roles and responsibilities; and explains the relationship between them, as depicted in Figure 1. See Appendix D: *Minimum Eligibility Checklist* for a list of eligibility requirements for applicants and subrecipients.

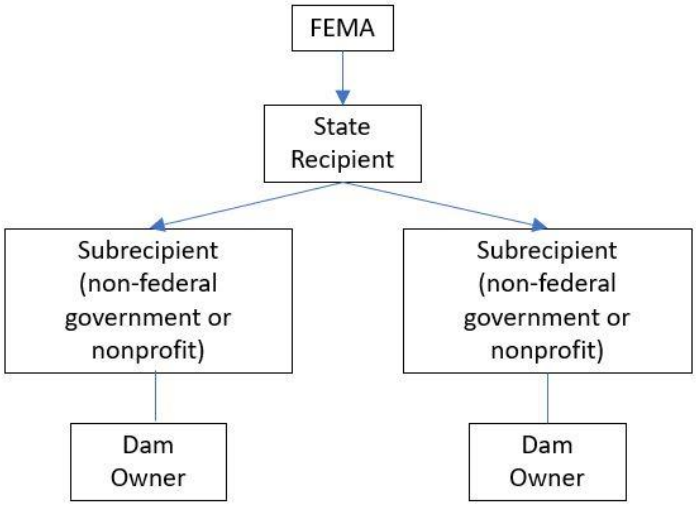

Figure 1: Typical Relationship between FEMA, Recipient, Subrecipient and dam owner. (Note: There can be more than two subrecipients for each state recipient.)

2.1.1 Applicant

Definition

A state with a state dam safety program authorized by state legislation is the only entity eligible to submit HHPD applications to DHS/FEMA[1].

The term "state" means each of the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States. As of January 1, 2020, 49 states (not Alabama) and the Commonwealth of Puerto Rico have state dam safety programs.

Each eligible state must designate one State Administrative Agency (SAA) to serve as the applicant for HHPD funding. Each SAA may submit only one (1) HHPD grant application to FEMA and be able to comply with regulations associated with receipt of federal financial contributions from FEMA.

SAA Coordination

Given the requirements of this grant [e.g. National Flood Insurance Program (NFIP) participation, hazard mitigation plan, floodplain management plan, risk prioritization], it is strongly recommended that states pursue this grant in coordination with the State Dam Safety Officer and the State Hazard Mitigation Officer (SHMO) and the NFIP State coordinator. For a list of SHMOs, see https://www.fema.gov/state-hazard-mitigation-officers.

Roles and Responsibilities

When funding is awarded, the SAA becomes the recipient, the pass-through entity, or both.

Pass-through entities are accountable for the use of the funds, responsible for administering the grant, and responsible for complying with program requirements and other applicable federal, state, territorial, and tribal laws and regulations. The pass-through entity is also responsible for financial management of the program and overseeing all approved projects. Applicants must document these responsibilities and provide a plan for administering the grant in a Grant Management Plan (see Section 5.4, Grant Management Plan, for more information.)

Additional Pass-Through Requirements

All pass-through entities must comply with Section 2 CFR 200.331 Requirements for pass-through entities.

Awards made to the SAA for HHPD carry additional pass-through requirements. Pass-through is defined as an obligation on the part of the SAA to make funds available to eligible subrecipients. The following requirements must be met to pass-through grant funds:

- The SAA must submit a revision or amendment to FEMA for approval that describes the budget and project scope for each subrecipient in accordance with 2 CFR § 200.308.

[1] Dams on Tribal Lands are not eligible to receive HHPD funding because they qualify for rehabilitation funding under the Dam Safety Maintenance and Repair Program. This program (established by the Indian Dam Safety Act of 1994 and administered by the Bureau of Indian Affairs) funds maintenance, monitoring, and rehabilitation of dams located on Indian lands.

- The SAA must make a firm written commitment to passing through grant funds to subrecipients;
- The SAA's commitment must be unconditional (i.e., no contingencies for the availability of SAA funds);
- There must be documentary evidence (i.e., award document, terms, and conditions) of the commitment; and
- The award terms must be communicated to the subrecipient, including the requirement for a FEMA-approved mitigation plan that includes all dam risks (See Appendix B, *Definitions*, for the definition of all dam risk and Section 5.8.3, *Mitigation Plan Requirements for Subrecipients (Local Governments or Nonprofit Organizations)*, for more information).

Timing and Amount

The SAA must pass-through 100 percent of the need-based portion of the funds awarded under the HHPD to eligible subrecipients within 90 calendar days of receipt of the funds. "Receipt of the funds" occurs either when the SAA accepts the award or 15 calendar days after the SAA receives notice of the award, whichever is earlier.

Compliance Requirements

The SAA must submit a list of all eligible high hazard potential dams in their state with the application. The SAA must submit an official assurance statement (signed by the Governor or Governor's Authorized Representative (GAR)) that the dams in the list of eligible high hazard potential dams are regulated by the state dam safety program and meet the following HHPD criteria for eligible high hazard potential dams (Source: 33 USC § 467(4)(A)):

(A) a non-federal dam that—
  (i) is located in a state with a state dam safety program;
  (ii) is classified as "high hazard potential" by the state dam safety agency in the state in which the dam is located;
  (iii) has an EAP approved by the relevant state dam safety agency; and
  (iv) the state in which the dam is located determines—
    (I) fails to meet minimum dam safety standards of the state; and
    (II) poses an unacceptable risk to the public.

(B) Exclusion: The term "eligible high hazard potential dam" does not include—
  (v) a licensed hydroelectric dam; or
  (vi) a dam built under the authority of the Secretary of Agriculture.

Dams that meet the National Inventory of Dams (NID) criteria for POOR, UNSATISATISFACTORY condition assessment may be eligible to include on the list of dams if a regulatory notice has also been issued. Dams with SATISFACTORY or NOT RATED

condition assessments are not eligible for the HHPD program. Dams classified as FAIR in the NID will be evaluated on a case-by-case basis.

Upon request, the SAA must provide to FEMA substantiating documentation that verify dams submitted are eligible under the HHPD grant. The requested documentation may include, but is not limited to, copies of the regulatory notices, risk assessments, engineering analyses, etc.) See Appendix B, *Definitions*, for definitions of unacceptable risk to the public, official regulatory notice, and the NID definitions.

In addition to the list of eligible high hazard potential dams, applicants must also:

1. Have in place (by the application deadline and at the time of obligation of grant funds) a FEMA-approved state hazard mitigation plan that includes all dam risks and complies with the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). For additional information on state mitigation plan requirements and FEMA procedures for review and approval of state mitigation plans, see Section 5.8.2, *State Hazard Mitigation Plan Requirement for Applicants*. If an applicant does not have a state mitigation plan that includes all dam risks, the applicant may request an extension to meet this requirement. See the HHPD Notice of Funding Opportunity (NOFO) and Section 5.9, *Mitigation Plan Extraordinary Circumstances*, for more information on how to request this extension.
2. Be able to comply with regulations associated with receipt of federal financial contributions from FEMA.

Best Practice

Private dam owners cannot be direct subrecipients of this grant. Dam owners should work with an eligible non-federal governmental organization or non-profit organization that can meet the compliance requirements.

2.1.2 Subrecipient

Definition

Eligible subrecipients can be non-federal governmental organizations (other than the designated applicant) and nonprofit organizations that receives a subaward from the SAA. Subrecipients are limited to ONLY those entities that have taxing authority or have another means of guaranteeing future operations and maintenance, such as fees, escrow accounts, or bonds, etc.

Eligible nonprofit organizations are those organizations described under section 501(c)(3) of the Internal Revenue Code of 1986 (IRC) and exempt from tax under section 501(a) of such code; refer to links below for additional information:

- https://www.irs.gov/charities-non-profits/charitable-organizations/exemption-requirements-section-501-c-3-organizations

- https://www.irs.gov/publications/p557/ch03.html
- https://www.irs.gov/charities-non-profits

Note: The Internal Revenue Service (IRS) does not require certain organizations such as churches, mosques, and synagogues to apply for and receive a recognition of exemption under section 501(c)(3) of the IRS. Such organizations are automatically exempt if they meet the requirements of section 501(c)(3). These organizations are not required to provide recognition of exemption. For organizations that the IRS requires to apply for and receive a recognition of exemption under 501(c)(3), the state may or may not require recognition of exemption, as long as the method chosen is applied consistently.

Roles and Responsibilities

The subrecipient is responsible for managing the subaward and complying with program requirements and other applicable federal, state, local, tribal, and territorial laws and regulations.

Compliance Requirements

***REQUIREMENT**: United States Code Title 33 § 467f–2 (d)(2)(D) To receive a grant under this section, the non-Federal sponsor shall comply with such minimum eligibility requirements as the Administrator may establish to ensure that each owner and operator of a dam under a participating State dam safety program and that receives assistance under this section acts in accordance with the State dam safety program*

***REQUIREMENT**: 33 USC § 467f–2 (d)(2)(A) To receive a grant under this section, the non-Federal sponsor shall participate in, and comply with, all applicable Federal flood insurance programs*

***REQUIREMENT**: 33 USC § 467f–2 (d)(2)(E) comply with section 5196(j)(9) of title 42 (as in effect on December 16, 2016) with respect to projects receiving assistance under this section in the same manner as Recipients are required to comply in order to receive financial contributions from the Administrator for emergency preparedness purposes.*

***REQUIREMENT**: 33 USC § 467f–2 (i)(1) as a condition on the receipt of a grant under this section of an amount greater than $1,000,000, a non-Federal sponsor that receives the grant shall require that each contract and subcontract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping, and related services entered into using funds from the grant be awarded in the same manner as a contract for architectural and engineering services is awarded under— (A) chapter 11 of title 40; or (B) an equivalent qualifications-based requirement prescribed by the relevant State.*

To be eligible for funding, subrecipients must:

1. Act in accordance with the state dam safety program and the project dam must be regulated by the state dam safety program. All activities must be approved by the state dam safety agency. Any engineering studies, plans, or design drawings and specifications

must be approved, signed, and stamped by a qualified design professional registered in the state in which the project is located.

2. Participate in, and comply with, all applicable National Flood Insurance Program requirements and not be suspended.
3. Commit to provide operation and maintenance of the project for the 50-year period following completion of rehabilitation (or the expected life of the dam) and provide assurance that the owner of the dam has developed and will carry out a plan for maintenance of the dam during the expected life of the dam. See Section 5.5, *Operation and Maintenance Plan Requirements*.
4. Have a floodplain management plan in place to reduce the impacts of future flood events in the area impacted by the project or demonstrate that it will be implemented no later than one (1) year after the date of completion of the project. See Section 5.6, *HHPD Floodplain Management Plan Requirements*.

   Have in place at the time of obligation of grant funds a FEMA-approved hazard mitigation plan that includes all dam risks and complies with the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). For additional information on local mitigation plan requirements and FEMA procedures for review and approval of local mitigation plans, see FEMA's Local Mitigation Plan Review Guide (Local Guide) (October 2011). For additional information on local mitigation plan requirements and FEMA procedures for review and approval of local mitigation plans, see Section 5.8.3, *Mitigation Plan Requirements for Subrecipients*, and the HHPD NOFO. If a subrecipient does not have a local mitigation plan that includes all dam risks, the subrecipient may request an extension to meet this requirement. See Section 5.9, *Mitigation Plan Extraordinary Circumstances,* for more information on how to request this extension.
5. Comply with Section 5196(j)(9) of Title 42[2] (Stafford Act section 611(j)(9)), the substance of which applies the Davis-Bacon Act (referred to as Sections 3141-3144, 3146, and 3147 of Title 40[3]) and Copeland Anti-Kickback Act (referred to as Section 3145 of Title 40) to contracts under a grant for this program) (as in effect on December 16, 2016) with respect to projects receiving assistance (see below).
6. Complies with Chapter 11 of Title 40, Brooks Architect-Engineers Act (40 USC 1101-1104). See Section 3.3.4, Procurement, for more information.

Compliance with Section 5196(j)(9) of Title 42. Subrecipient must comply with Section 5196(j)(9) of Title 42 (as in effect on December 16, 2016) with respect to projects receiving assistance under this section.

> *All laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed with the assistance of any contribution of Federal funds made by the Administrator must be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor*

[2] 42 U.S.C. 5196(j)(9)/section 611(j)(9) of the Stafford Act

[3] Davis-Bacon Act (40 USC. 3141-3144, 3146, 3147)

in accordance with Sections 3141–3144, 3146, and 3147 of Title 40, and every such employee must receive compensation at a rate not less than 1 ½ times the basic rate of pay of the employee for all hours worked in any workweek in excess of 8 hours in any workday or 40 hours in the workweek. The Administrator will make no contribution of Federal funds without first obtaining adequate assurance that these labor standards will be maintained upon the construction work. The Secretary of Labor has, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (5 USC App.) and Section 3145 of Title 40.

2.2 DAM ELIGIBILITY

***REQUIREMENT**: 33 USC § 467f–2 Definition (4): (A)The term "**eligible high hazard potential dam**" means a non-Federal dam that— (i)is located in a State with a State dam safety program; (ii)is classified as "high hazard potential" by the State dam safety agency in the State in which the dam is located; (iii)has an emergency action plan approved by the relevant State dam safety agency; and (iv)the State in which the dam is located determines— (I)fails to meet minimum dam safety standards of the State; and (II)poses an unacceptable risk to the public. (B) Exclusion: The term "eligible high hazard potential dam" does not include a licensed hydroelectric dam; or a dam built under the authority of the Secretary of Agriculture.*

2.2.1 Eligibility Requirements

To be eligible for HHPD funding, a dam must meet the definition of a dam (See Appendix B, *Definitions*) and:

- Be located in a state with a state dam safety program.
- Be classified as "high hazard potential" by the state dam safety program.
- Have an EAP approved state dam safety program.
- Fail to meet minimum state dam safety standards and pose an unacceptable risk to the public (See Appendix B, *Definitions*, for a definition of unacceptable risk to the public).
- Eligible projects must meet non-federal cost-share requirements. See Appendix B, *Definitions*, for the definition of non-federal entity. Also see 33 U.S.C. § 467f-2(g)(1).

The following dams are not eligible for HHPD funding:

- Federally owned dams.
- Hydroelectric dams licensed by the Federal Energy Regulatory Commission.
- Dams built under the authority of the Secretary of Agriculture.

In addition to the minimum requirements listed above, FEMA will review the Condition Assessment data reported in the NID to validate a dam's eligibility. Dams that meet the NID criteria for POOR or UNSATISATISFACTORY condition assessments may be eligible to include on the list of dams if a regulatory notice has also been issued. Dams with SATISFACTORY or NOT RATED condition assessments are not eligible for the HHPD program. Dams classified as FAIR in the NID will be evaluated by FEMA on a case-by-case basis to determine if they meet the requirements for eligibility.

Upon request, the SAA must provide to FEMA substantiating documentation that verify dams submitted are eligible under the HHPD grant. The requested documentation may include, but is not limited to, copies of the regulatory notices, risk assessments, engineering analyses, etc.

See Appendix B, *Definitions*, for definitions of Unacceptable Risk to the Public, Official Regulatory Notice, and the NID condition assessment definitions. Also see *Section 5.2, Eligible High Hazard Potential Dams.*

2.3 ALLOWABLE AND UNALLOWABLE ACTIVITIES

This section describes allowable project activities and unallowable activities. Allowable projects must address all safety deficiencies in the dam and provide an independent, long-term solution to the unacceptable risk.

REQUIREMENT:

33 USC § 467f–2 (b): Eligible activities*: A grant awarded under this section for a project may be used for—*

(1) repair;
(2) removal; or
(3) any other structural or nonstructural measures to rehabilitate an eligible high hazard potential dam.

33 USC § 467f–2 (d)(1): Approval: *A grant awarded under this section for a project shall be approved by the relevant State dam safety agency*

Senate Bill Definition: (12) ***Rehabilitation***

Senate Bill Definition: (15) ***State dam safety program***

33 USC § 467f–2 (h) Use of funds *None of the funds provided in the form of a grant or otherwise made available under this section shall be used—*

(1) to rehabilitate a Federal dam;
(2) to perform routine operation or maintenance of a dam;
(3) to modify a dam to produce hydroelectric power;
(4) to increase water supply storage capacity; or
(5) to make any other modification to a dam that does not also improve the safety of the dam.

Activities must be approved by the relevant state dam safety agency

2.3.1 Eligible Activities

FEMA will evaluate proposed activities for eligibility (See Section 6, *Application Review Information*). Eligible activities include repair, removal, or any other structural or nonstructural measures to rehabilitate an eligible high hazard potential dam.

Rehabilitation is the repair, replacement, reconstruction, or removal of a dam that is carried out to meet applicable state dam safety and security standards.

For the purposes of this grant program, the activities shown in Table 2-1 could qualify for funding. This list is not exhaustive; other activities may also be eligible. Note: All grants-funded activities must comply with Federal Environmental Planning and Historic Preservation (EHP) regulations. See Section 3.3.1, *Environmental and Historic Preservation Compliance Requirements*, for more information about EHP Compliance.

Table 2-1: Examples of Eligible Activities

Category	Activity
Administrative	Administrative actions associated with grants management
Planning	Activities and studies that determine risks associated with eligible dams
	Environmental studies for NEPA compliance
	Development of floodplain management plans (including evacuation plans, plans for flood fighting, or community response plans, and coordination of EAP and EOPs for different release conditions as part of the floodplain management plan)
	Development of operation and maintenance plans
Preliminary Engineering	Dam risk and consequence assessments
	Feasibility studies
	Preliminary engineering studies
	Alternatives analysis
	Mapping, engineering survey, and inundation modeling
Engineering Design	Engineering design
	Development of specifications
Construction projects	Repair or rehabilitation of the dam
	Dam removal
	Construction monitoring
	Installation of early warning systems associated with the eligible dam project
Other Nonstructural Activities	Removing/relocating the downstream hazard
Outreach and Risk Communication	Public education and awareness of flood risks associated with the eligible project

2.3.2 Ineligible Activities

Federal funds provided under the HHPD cannot be used to:

- Rehabilitate a federal dam.
- Perform routine operation or maintenance of a dam or to complete deferred maintenance. See Appendix B, *Definitions*, for the definitions of routine operation and maintenance and deferred maintenance.
- Modify a dam to produce hydroelectric power.
- Increase water supply storage capacity.

- Make any other modification to a dam that does not also improve the safety of the dam.

2.4 PHASED PROJECTS

Phased projects are allowed for the HHPD Program. Dam rehabilitation or decommissioning projects may require several phases in which planning, risk analysis, engineering studies, alternative analyses, design, environmental studies, and permitting are completed. These activities may extend beyond the 36-month period of performance (POP) and could better be accomplished through a phased approach.

For example, for the first grant cycle, a state applicant may choose to use HHPD funding to conduct risk analysis for eligible dams in their state to prioritize the dams and eligible subrecipients (see Section 5.7, *Risk-Based Prioritization Method Requirements*) and update or develop their HHPD floodplain management plans. For the second grant cycle, prioritized eligible subrecipients may choose to conduct planning and feasibility studies to determine which rehabilitation projects best address risk. The following grant cycle, eligible subrecipients may choose to perform preliminary design of the selected rehabilitation alternative and begin collection of data for environmental and historic preservation compliance. In the final grant cycle, subrecipients may construct the project.

Note eligible projects must improve the safety of the dam. The SAA should evaluate and prioritize projects based on risk (i.e. addressing piping may be more pertinent than correcting an undersized spillway, but both deficiencies should be addressed through the phased approach). Applicants should include details about a phased approach in the Program Work Plan (See Section 5.1, *Program Work Plan*).

SECTION THREE GRANT FUNDING

FEMA makes funding determinations for the HHPD grant based on the formula established by statute. Consistent with FEMA Policy 104-008-7, grant funding requirements are described in this section.

***REQUIREMENT**:*
33 USC § 467f–2 (g) Funding
(1) Cost sharing
(A) In general: Any assistance provided under this section for a project shall be subject to a non-Federal cost-sharing requirement of not less than 35 percent.
(B) In-kind contributions: The non-Federal share under subparagraph (A) may be provided in the form of in-kind contributions.
(2) Allocation of funds: The total amount of funds made available to carry out this section for each fiscal year shall be distributed as follows:
(A) Equal distribution: ⅓ shall be distributed equally among the States in which the projects for which applications are submitted under subsection (c)(1) are located.
(B) Need-based⅔ shall be distributed among the States in which the projects for which applications are submitted under subsection (c)(1) are located based on the proportion that—
(i) the number of eligible high hazard potential dams in the State; bears to
(ii) the number of eligible high hazard potential dams in all such States.
***33 USC § 467f–2 (j) Authorization of appropriations:** There are authorized to be appropriated to carry out this section—*
(1) $10,000,000 for fiscal years 2017 and 2018;
(2) $25,000,000 for fiscal year 2019;
(3) $40,000,000 for fiscal year 2020; and
(4) $60,000,000 for each of fiscal years 2021 through 2026.
(Pub. L. 92–367, § 8A, as added Pub. L. 114–322, title IV, § 5006(b), Dec. 16, 2016, 130 Stat. 1893.)

3.1 COST SHARING REQUIREMENT

Assistance provided under the HHPD grant is subject to a non-Federal cost-sharing requirement of not less than 35 percent. Federal funding is available for up to 65 percent of the eligible activity costs. The remaining 35 percent of eligible activity costs must be derived from non-federal sources, which may be in-kind. Requirements for cash and third-party in-kind contributions can be found in 2 C.F.R. §200.306. The non-federal cost share contribution is not limited to 35 percent.

The non-federal cost share contribution is calculated based on the total cost of the proposed activity. For example, if the total cost is $400,000 and the non-federal cost share is 35 percent, then the non-federal contribution is $140,000: 35 percent of $400,000 is $140,000. The federal share cannot exceed $260,000 ($400,000 x 65%).

The cost share will be applied to each subrecipient based on the eligible activity costs. If the amount of funding is not sufficient for all eligible activities, the state will have to prioritize dams using the risk-based prioritization method (see Section 5.7, *Risk-Based Prioritization Method Requirements*) to choose which prospective subrecipients to fund. The state may also choose to increase the non-federal cost-share.

3.1.1 Eligible Costs

Both the federal and the non-federal cost shares must be for eligible costs used in direct support of the approved activities under this guidance and the award. Contributions of cash, third-party in-kind services, materials, or any combination thereof, may be accepted as part of the non-federal cost share. Note: Cost share (in-kind services, contributions, etc.) must be accomplished after award, during the POP.

FEMA administers cost-sharing requirements consistent with 2 CFR Sections 200.29, 200.306, and 200.434. To meet cost-sharing requirements, the non-federal contributions must be verifiable from the subrecipient's records, reasonable, allocable, necessary, and otherwise allowable under the grant program and must comply with all applicable federal requirements and regulations. Requirements for cash and third-party in-kind contributions can be found in 2 C.F.R. Section 200.306.

3.1.2 Required Documentation

Requirements for cash and third-party in-kind contributions can be found in 2 CFR Section 200.306. Cash and third-party in-kind contributions are only allowable for eligible program costs. The following documentation is required for cash and third-party in-kind contributions:

- Identification of contributions in the cost estimate.
- Record of donor.
- Dates of donation.
- Rates for staffing, equipment usage, supplies, etc.
- Amounts of donation or value of donation (also see 2 CFR Section 200.434).
- Deposit slips for cash contributions.

Such documentation must be kept on file by the recipient and subrecipient. Pass-through entities are required to comply with 2 CFR 200.331.

3.2 FUNDING FORMULA

The allocation of available HHPD grant funds is determined by 33 U.S.C § 467f-2 (g)(2) Allocation of Funds. The allocation of the HHPD funds is calculated as follows:

[A] Equal Distribution: One-third of the available funding will be distributed equally among the states in which the projects for which applications are submitted;

[B] Need-Based Distribution: Two-thirds of the available funding will be distributed amongst states that submit applications with allowable activities and based on the proportion of:

- The number of eligible high hazard potential dams in the state;
- The number of eligible high hazard potential dams in all such states.

Note: states can submit applications with eligible activities for all or some of the eligible dams. Applications that do not include any eligible activities will be removed from consideration.

The maximum amount of funding any Subrecipient can receive under HHPD is statutorily limited. The maximum subrecipient funding cannot exceed the lesser of 12.5 percent of the total amount of funds made available, or $7,500,000.

Example Using Funding Formula

The following example demonstrates the funding formula. Assume eleven states apply for funding in a given year, with the number of eligible dams as shown in Table 3-1.

Table 3-1: Example – Number of States and Eligible Dams

State	Number Eligible Dams
State 1	3
State 2	10
State 3	2
State 4	5
State 5	8
State 6	7
State 7	14
State 8	6
State 9	4
State 10	9
State 11	5
Total Eligible Dams	**73**

Step [A]. Using the funding formula, 1/3 of the $10,000,000 in available funding ($3,333,333.33) would be divided evenly between the eleven states, totaling $303,030.30 to each of the eleven states.

Step [B]. A total of 73 eligible dams were submitted with the eleven state applications. The remaining 2/3 of the available funding ($6,666,666.67) would be distributed as shown:

Table 3-2: Example – Resulting Funding Using Formula

State	Ratio of State's Eligible Dams to All Eligible Dams	Resulting Funding
State 1	3/73	$303,030.30 + $6,666,666.67 x (3/73) = $577,002.91

State	Ratio of State's Eligible Dams to All Eligible Dams	Resulting Funding
State 2	10/73	$303,030.30 + $6,666,666.67 x (10/73) = $1,216,272.31
State 3	2/73	$303,030.30 + $6,666,666.67 x (2/73) = $485,678.70
State 4	5/73	$303,030.30 + $6,666,666.67 x (5/73) = $759,651.31
State 5	8/73	$303,030.30 + $6,666,666.67 x (8/73) = $1,033,623.91
State 6	7/73	$303,030.30 + $6,666,666.67 x (7/73) = $942,299.71
State 7	14/73	$303,030.30 + $6,666,666.67 x (14/73) = *$1,581,569.12*
State 8	6/73	$303,030.30 + $6,666,666.67 x (6/73) = $850,975.51
State 9	4/73	$303,030.30 + $6,666,666.67 x (4/73) = $668,327.11
State 10	9/73	$303,030.30 + $6,666,666.67 x (9/73) = $1,124,948.11
State 11	5/73	$303,030.30 + $6,666,666.67 x (5/73) = $759,651.31

Maximum Funding Amounts. Using the example provided, the maximum amount that could be awarded to any given subrecipient in FY20 is 12.5 percent of $10,000,000 or $1,250,000. Using the funding formula, the resulting funding for State 7 exceeded the maximum amount, so State 7 would still receive $1,581,569.12. However, no subrecipient would be awarded more than $1,250,000.

A state may have multiple subrecipients; if the amount of funding is not sufficient for all eligible subrecipients, the state will have to prioritize dams using the risk-based prioritization method (see Section 5.7, *Risk-Based Prioritization Method Requirements*) to choose which subrecipients to fund.

Example (use Table 3-2 above): Assume State 2 submitted five activities with their application. Assume the cost estimates for each activity are as follows: $200,000 for Activity 1, $500,000 for Activity 2, $600,000 for Activity 3, $400,000 for Activity 4, and $1,000,000 for Activity 5. FEMA reviewed the five activities and determined that Activity 1 is not eligible for funding. State 2 must use the risk-based prioritization method to determine which of the remaining four eligible activities (Activities 2-5) to fund. Note some of the activities may not be fully funded.

3.3 GENERAL FEDERAL FUNDING REQUIREMENTS

This section presents information on Non-discrimination Compliance, Conflict of Interest, Procurements by states and other entities, Duplication of Program (DOP), and Duplication of Benefits (DOB).

3.3.1 Environmental and Historic Preservation Compliance Requirements

As a federal agency, FEMA is required to consider the effects of its actions on the environment and/or historic properties to ensure all activities and programs funded by the Agency, including grants-funded projects, comply with federal EHP regulations, laws and Executive Orders as applicable. Recipients and subrecipients proposing projects that have the potential to impact the

environment, including but not limited to planning activities, engineering studies, and other pre-construction activities requiring analyses that physically affect the environment (for example, geotechnical investigations, collecting soil samples, shear wave velocity tests, cone penetrometer tests, test pits, site surveys, in situ soil and rock testing, or installation of monitoring instrumentation) must participate in the FEMA EHP review process pursuant to FEMA's *Instructions on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program requirements, FEMA Instruction 108-1-1* (see https://www.fema.gov/media-library/assets/documents/118323).

The EHP review process involves the submission of a detailed project description along with supporting documentation so that FEMA may determine whether the proposed project has the potential to impact environmental resources and/or historic properties, and whether the proposed project has disproportionate environmental effects on low income populations and/or communities of color. Recipients and subrecipients can assist FEMA and frontload the process by identifying EHP reviews previously completed by other agencies, gathering data, and reaching out to stakeholders and regulatory agencies for pertinent information. FEMA will use the information provided in the application/subapplication, including the Scope of Work (SOW), project cost estimate, as well as any supporting documentation, to ensure compliance with EHP requirements. In some cases, FEMA is also required to consult with other regulatory agencies and the public in order to complete the review process. The EHP review process must be completed before funds are released to carry out the proposed project; otherwise, FEMA may not be able to fund the project due to non-compliance with EHP laws, executive order, regulations, and policies.

Recipients and subrecipients applying for HHPD projects with potential for physical impacts to the environment or cultural resources or disproportionate environmental effects on low income populations and/or communities of color are encouraged to determine the information needed to comply with all applicable EHP laws, implementing regulations, and executive orders, including but not limited to the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA), Executive Order (EO) 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), and EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*) as part of their initial and ongoing planning in order to lessen potential impacts to the environment, cultural resources, low income populations, and/or communities of color, and to identify the best possible solution for their dam safety initiative. Recipients and subrecipients should be aware that an Environmental Assessment pursuant the requirements of NEPA may be necessary for dam rehabilitation or construction projects funded by FEMA and should therefore be accounted for as initial and ongoing project planning takes place. In addition to NEPA, the EHP Checklist (Appendix F) lists the most common laws for which a project must comply. Recipients and subrecipients should complete the EHP Checklist when scoping a project to assist consideration of EHP requirements in the development of a complete project application.

Recipients and subrecipients should also be aware approval or funding of a dam rehabilitation plan or study under HHPD does not guarantee that additional EHP review will not be required if

FEMA or another federal agency was to fund construction or rehabilitation activities resulting from these grant activities.

FEMA developed guidance to assist in completing the EHP information section of a project subapplication, including an online training, and information about historic preservation. For links to these EHP resources, see Appendix F, *EHP Checklist and Resources*.

3.3.2 Non-discrimination Compliance

In accordance with 2 CFR Section 200.300 and Section 308 of the Stafford Act; Sections 503, 504, and 508 of the Rehabilitation Act of 1973, Title VI of the 1964 Civil Rights Act, and EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), the HHPD program is administered in an equitable and impartial manner, without discrimination on the grounds of race, color, religion, nationality, sex, age, disability, English proficiency, or economic status. In addition, federal assistance distributed by state, local, tribal, and territorial governments is to be implemented in compliance with all applicable laws.

Applicants and subrecipients must ensure no discrimination is practiced. Applicants and subrecipients must consider fairness, equity, and equal access when prioritizing and selecting projects to submit with their grant application including ensuring their practices that affect the environment do not directly discriminate or have the effect of discriminating on the basis of race, color, or national origin. Subrecipients also must ensure fairness and equal access to property owners and individuals benefitting from funded activities.

3.3.3 Conflicts of Interest in the Administration of Federal Awards or Subawards

To eliminate and reduce the impact of conflicts of interest in the subaward process, recipients and pass-through entities must follow their own policies and procedures regarding the elimination or reduction of conflicts of interest when making subawards. Recipients and pass-through entities are also required to follow any applicable federal statutes or regulations governing conflicts of interest in the making of subawards.

Conflicts of interest may arise during the process of FEMA making a federal award—for instance, in situations where an employee, officer, or agent; any members of the individual's immediate family; or his or her partner has a close personal relationship, a business relationship, or a professional relationship, with an applicant, subrecipient, or employee.

The recipient or pass-through entity must disclose to FEMA in writing any real or potential conflict of interest, as defined by the federal, state, local, tribal, or territorial statutes or regulations or their own existing policies, that arise during the administration of the federal award. Recipients and pass-through entities must disclose any real or potential conflicts to the Federal Approving Official within 15 days of learning of the conflict of interest. Similarly, subrecipients must disclose any real or potential conflict of interest to the pass-through entity as required by the recipient's conflict of interest policies or any applicable state, local, or tribal statutes or regulations. This requirement starts when the application period opens, continues during the entire POP, and ends when the last audit is completed.

For conflicts of interest under grant-funded procurements and contracts, refer to the section on Procurement Integrity in the HHPD NOFO and 2 C.F.R. §§ 200.317 – 200.326.

3.3.4 Procurement

For conflict of interest requirements for procurement under awards, all applicants, subrecipients, and non-federal entities must follow the requirements under the procurement regulations at 2 CFR Sections 200.317 through 200.326. When procuring property and services under a federal award, a state recipient or subrecipient must follow the same policies and procedures it uses for procurements from its non-federal funds and the requirements outlined in 2 CFR Section 200.317. All other recipients and subrecipients (not a state) must follow 2 CFR Sections 200.318 through 200.326. For subawards greater than $1,000,000, each subrecipient that receives HHPD grant funding must require that each contract and subcontract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping, and related services entered into using funds from the grant be awarded in the same manner as a contract for architectural and engineering services (under Chapter 11 of Title 40; Selection of Architects and Engineers, or an equivalent qualifications-based requirement prescribed by the state). The language for Chapter 11 of Title 40; Selection of Architects and Engineers, can be viewed at: http://uscode.house.gov/view.xhtml?path=/prelim@title40/subtitle1/chapter11&edition=prelim

3.3.5 Duplication of Programs

Duplication of Benefits (DOB)

DOB is used to describe assistance that is from more than one source and is used for the same cost or activity. The purpose may apply to the entire project or only part of it. DOB may apply when assistance for the same cost or activity:

- Has been received
- Will be received
- Is reasonably available from another source, such as insurance or legal settlements due to the property owners

FEMA generally will not provide assistance when specific authority lies with another federal agency or program. Other programs and authorities should be examined before applying for HHPD funding. HHPD funds are not intended to be used as a substitute for other available program authorities. Available program authorities include other FEMA programs (e.g., FEMA Public Assistance or Hazard Mitigation Grant Program) and programs under other federal agencies, such as the Bureau of Indian Affairs, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers (USACE), and the Natural Resources Conservation Service (NRCS). FEMA may disallow amounts that duplicate other authorities.

For example, dams on Tribal Lands are not eligible to receive HHPD funding because they qualify for rehabilitation funding under the Dam Safety Maintenance and Repair Program. This program (established by the Indian Dam Safety Act of 1994 and administered by the Bureau of Indian Affairs) funds maintenance, monitoring, and rehabilitation of dams located on Indian lands.

3.3.6 Duplication of Benefits

HHPD funds cannot duplicate funds received by applicants or subrecipients from other sources for the same cost or activity. Examples of other sources include other assistance programs, legal awards, or other benefits associated with properties or damage that are subject of litigation. For example, if an applicant or subrecipients receives funding from FEMA's Hazard Mitigation Assistance Program for current work on hazard mitigation plans or floodplain management plans, those current activities would not be eligible for HHPD funding.

Because the availability of other sources of mitigation grant or loan assistance is subject to available information and the means of each individual applicant, HHPD does not require subrecipients to seek assistance from other sources. However, it is the responsibility of the subrecipients to report other benefits received, any applications for other assistance, the availability of insurance proceeds, or the potential for other compensation, such as from pending legal claims for damage relating to the property.

Information regarding other assistance received by subrecipients may be shared under 5 USC 552a (b) of the Privacy Act of 1974. Uses may include sharing with custodians of property records, such as other federal or other governmental agencies, insurance companies, or any public or private entity, for the purposes of ensuring that the property has not received money that is duplicative of any possible other awards received. When obtaining information from subrecipients about other sources of assistance, a Privacy Act statement must be distributed to each owner.

SECTION FOUR APPLYING FOR HHPD GRANT FUNDING

This section describes the application process, FEMA's Non-Disaster Grants Management System, and provides submission dates and times. This Guidance is applicable by reference in FEMA Policy 104-008-7.

4.1 APPLICATION PROCESS

The SAA submits the application to FEMA for determination of eligibility. If the application is recommended for funding by FEMA, the amount of funding the applicant will receive is determined based on the funding formula (see Section 3.2, *Funding Formula*, for information about the funding formula). The SAA will then determine if the funding is enough to fund all prospective subrecipient activities. If not, the Risk-Based Prioritization method will be used to determine which activities are funded that grant cycle (see Section 5.7, *Risk-Based Prioritization Method Requirements*).

Funding Formula

The allocation of available HHPD grant funds is determined by the formula described in 33USC 467f-2(g)(2), Allocation of Funds. The funding formula is based on the number of eligible high hazard potential dams in the state.

Note: FEMA reserves the right to request supporting documentation for a compliance audit.

4.2 FEMA'S NON-DISASTER GRANTS MANAGEMENT SYSTEM

Applications are submitted through FEMA's Non-Disaster Grants Management System (ND Grants). The ND Grants Management System is a web-based system providing FEMA and its stakeholders with a system that supports the grants management lifecycle. For more information, see https://www.fema.gov/non-disaster-grants-management-system. For specific application and submission instructions, see Section D of *The Department of Homeland Security (DHS) Notice of Funding Opportunity (NOFO): Fiscal Year (FY) 2020 High Hazard Potential Dams (HHPD) Rehabilitation Grant*.

4.3 SUBMISSION DATES AND TIMES

Applicants must submit their application by the established deadline in the Notice of Funding Opportunity (NOFO). The Non-Disaster (ND) Grants System will date stamp a submitted application and applicants will receive an electronic message confirming receipt of the full application. In general, FEMA will not review or consider for funding applications submitted after the established deadline. FEMA may, however, extend the application deadline on request for any applicant who can demonstrate good cause exists to justify extending the deadline. Good cause for an extension may include technical problems outside of the applicant's control preventing submission of the application by the deadline, or other exigent or emergency

circumstances. Applicants that experience technical issues, must notify the ND Grants Service Desk at 1-800-865-4076 or NDGrants@fema.dhs.gov.

Pass-through Requirements

SAAs are sent notification of HHPD awards via the ND Grants system. If an SAA accepts its award within 15 calendar days of receiving notice of the award in the ND Grants system, the 90-calendar days pass-through period will start on the date the SAA accepted the award. Should an SAA not accept the HHPD award within 15 calendar days of receiving notice of the award in the ND Grants system, the 90-calendar days pass-through period will begin 15 calendar days after the award notification is sent to the SAA via the ND Grants system.

SECTION FIVE APPLICATION REQUIREMENTS

The following subsections include detailed requirements for the Program Work Plan, Performance Metrics, List of Eligible Dams, Grant Management Plan, Operation and Maintenance Plan, HHPD Floodplain Management Plan, Risk-Based Prioritization Method, and State and Local Hazard Mitigation Planning. For a complete list of required documents, refer to Appendix E, *Minimum Criteria Checklist for Project Applications*. This Guidance is applicable by reference in FEMA Policy 104-008-7.

5.1 PROGRAM WORK PLAN

Applicants must submit a Program Work Plan describing the process for selecting subrecipients and how HHPD funds will be used to advance HHPD priorities and performance goals. The Program Work Plan must clearly identify how the SAA proposes to meet the performance metrics identified in Section 5.3, Performance Metrics.

The Program Work Plan must include a detailed description of the anticipated outcomes of the HHPD investment, called the scoping narrative. The scoping narrative should contain information about how the applicant will use HHPD funding to achieve the goals and objectives of the HHPD.

FEMA will review the Program Work Plan to determine whether the activities are eligible, whether the applicant can complete the activities within the POP, and whether the proposed costs are reasonable. Applicants that do not meet eligibility or application submission requirements will be removed from consideration.

After funds are received, the Program Work Plan must be amended to:

- Include a detailed scope of work, cost estimate, and timelines and milestones for implementing the HHPD grant for each subrecipient
- Clearly identify how the SAA proposes to meet the performance metrics identified in Section 5.3, *Performance Metrics*.

5.2 LIST OF ELIGIBLE DAMS

To be eligible for HHPD funding, applicants are required to submit a list of all eligible high hazard potential dams in their state. The list of eligible high hazard potential dams is used to determine the amount of funding an applicant may receive.

Funding Formula

The allocation of available HHPD grant funds is determined by the formula described in 33 U.S.C. § 467f–2, Rehabilitation of High Hazard Potential Dams, Allocation of Funds. The funding formula is based on the number of eligible high hazard potential dams in the state.

5.2.1 Dam Eligibility Criteria

Table 5-1 describes the minimum requirements eligible high hazard potential dams must meet in order to be included on an applicant's list of dams.

Table 5-1: Minimum Requirements for Eligible High Hazard Potential Dams

Item	Requirement	Reference
Dam Name	Include the dam's common name(s)	Notice of Funding Opportunity (NOFO)
National Inventory of Dams (NID) ID	Include the dam's NID ID number	NOFO, Section D
Owner	The dam must be owned by a non-federal owner	33 U.S.C. § 467f–2 Definition (4)
Location	The dam must be located in a state with a state dam safety program	33 U.S.C. § 467f-2(d)
Hazard Potential Classification	Must be high hazard potential	33 U.S.C. § 467f–2 Definition (4)
Emergency Action Plan (EAP) approved by the state dam safety agency	The EAP must be approved by the state dam safety agency in the state in which the dam is located	33 U.S.C. § 467f–2 Definition (4)
Fails to meet minimum dam safety standards of the state	As determined by the state	33 U.S.C. § 467f–2 Definition (4)
Poses an unacceptable risk to the public	See Definitions section for requirements	33 U.S.C. § 467f–2 Definition (4), NOFO, Section H
Official Regulatory Notice	See Definitions section for requirements	NOFO, Section H
Not licensed by the Federal Energy Regulatory Commission	Licensed hydroelectric dams are not eligible	33 U.S.C. § 467f–2 Definition (4)
Not built under the authority of the Secretary of Agriculture (NRCS)	Dams built under the authority of the Secretary of Agriculture are not eligible	33 U.S.C. § 467f–2 Definition (4)
NID Condition Assessment	See the Condition Assessment Section, below	NOFO, Section C

FEMA will evaluate documentation submitted by the applicant to assess the eligibly of each dam included in the list of dams. Upon request, the SAA must provide to FEMA substantiating documentation that verify dams submitted are eligible under the HHPD grant. The requested documentation may include, but is not limited to, copies of the regulatory notices, risk assessments, engineering analyses, etc.

5.2.2 Unacceptable Risk to the Public

Eligible high hazard potential dams are a subset of high hazard potential dams that the state has determined fail to meet minimum state dam safety standards and pose an unacceptable risk to the public.

For a dam to be considered an unacceptable risk to the public under the HHPD, it must meet all of the following conditions:

1. The dam does not meet the minimum dam safety standards of the state (not including routine operations and maintenance actions)
2. The state dam safety program has documented the deficiencies at the dam that must be reduced, eliminated, or mitigated
3. Official regulatory notice (See Definitions Section) of the determination of the documented deficiency (s) has been communicated to the dam owner. The official regulatory notice requires implementation of interim risk reduction measures to address the unacceptable risk to the public until permanent risk reduction measures are implemented in a manner that is acceptable to the state. Official regulatory notice must be on official state or state dam safety program letterhead and may include official citations issued from the state dam safety program to the dam owner.

The determination of unacceptable risk to the public is made by the state dam safety program (the agency of the state that is authorized by state statute to manage the state participation in the National Dam Safety Program).

A dam poses unacceptable risk to the public when the dam requires remediation or risk reduction measures due to a dam safety deficiency. For the purposes of the HHPD program, a DAM SAFETY DEFICIENCY is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria (See the NID Definitions Section). Dam safety deficiencies are often caused by inadequate dam design, construction methods, or the results of inadequate operation and maintenance that have compromised the structural or operational integrity of the dam.

Note: routine operation and maintenance (See Definitions section) are not eligible activities under the HHPD grant program (33 U.S.C. § 467f-2(h)). If a dam has a deficiency resulting from inadequate operation and maintenance, a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure must exist for the dam to pose an unacceptable risk to the public and be eligible for HHPD grant program.

5.2.3 Official Regulatory Notice

All dams included in an applicant's list of dams must have an issued Official Regulatory Notice (See Appendix B, *Definitions* for the definition of Official Regulatory Notice). This means that the state dam safety official has issued an official notification to the dam owner. A specific DAM SAFETY DEFICIENCY (See the NID Definitions section) is recognized and cannot be resolved with routine maintenance. The state dam safety agency has issued an official regulatory notice to the dam owner must include the following elements:

- The dam owner is notified of the specific deficiency and a regulatory requirement to immediately implement risk-reduction measures. (Required risk-reduction measures may include activities such as hiring an engineer to conduct risk-based failure mode studies, design of risk-reduction measures, construction of risk-reduction measures, or other actions.)
- The regulatory notice indicates whether temporary risk-reduction measures (such as reservoir restrictions) are required.
- The regulatory notice indicates a specific time allowance for the completion of the risk-reduction measures.
- The regulatory notice includes a statement of the state dam safety's authority to issue regulatory actions and/or specific regulatory enforcement actions for failure to comply.

The following sample regulatory notice meets the requirements for Official Regulatory Notice.

> Dear *Dam Owner*,
>
> Enclosed is conditional operation permit for *Dam Name, National Inventory of Dams ID ###*. The conditions tied to the operation permit approval include:
>
> > Condition 1: Conduct further investigation of the foundation seepage under the direction of an experienced geotechnical engineer. Report your findings and recommendations to the state dam safety office within one year.
>
> The type of foundation seepage we are seeing at *Dam Name* could lead to dam failure. As we discussed in our meetings on *date*, there must be a better understanding of the water bearing layer(s) in the foundation before a remedy can be developed. Additional evaluation under the direction of an engineer with specialized knowledge and experience in developing foundation seepage remedies is needed.
>
> Failure to meet the operation conditions may result in revocation of the permit.
>
> Signed, *Representative of the state dam safety office*

5.2.4 Condition Assessment

In addition to the minimum requirements listed above, FEMA will review the Condition Assessment data reported in the NID to validate a dam's eligibility. Dams that meet the NID criteria for POOR or UNSATISATISFACTORY condition assessments may be eligible to include on the list of dams if a regulatory notice has also been issued. Dams with

SATISFACTORY or NOT RATED condition assessments are not eligible for the HHPD program. Dams classified as FAIR in the NID are evaluated on a case-by-case basis. FEMA may request additional documentation to substantiate the eligibility of a dam.

See the NID Definitions section for the NID definitions of POOR, UNSATISATISFACTORY, FAIR, SATISFACTORY and NOT RATED.

5.3 PERFORMANCE METRICS:

The HHPD grant recipients performance will be evaluated on their progress on delivering the following outcomes:

- Increased understanding of risk posed by eligible dams through studies, prioritization, planning, and preliminary engineering.
- Reduced consequences through rehabilitation of eligible high hazard potential dams.

To demonstrate the progress of the HHPD grant, the recipient must use the following metrics to measure performance outcomes:

- The percentage of eligible high hazard potential that have implemented pre-construction rehabilitation activities under the HHPD grant, and the PAR associated with each dam.
- The percentage of HHPD grant subrecipients that have developed floodplain management plans, and the PAR associated with each dam.
- The total non-federal investment (including in-kind contributions) applied toward eligible activities supporting the rehabilitation of eligible high hazard potential dams under the HHPD grant.
- The anticipated losses avoided as a result of dam rehabilitation projects completed under the HHPD grant, and the PAR associated with the dam.

The following methods may be used to demonstrate performance progress:

- For all projects, demonstrate the effectiveness of the program by submitting the total non-federal investment (including in-kind contributions) applied toward eligible activities supporting the rehabilitation of eligible high hazard potential dams under the HHPD grant.

For study, planning, or preliminary engineering activities, demonstrate the increase in risk understanding by submitting the following information:

1. The percentage of eligible high hazard potential dams that have implemented pre-construction rehabilitation activities (risk understanding studies, risk-based prioritization, planning, and preliminary engineering studies, etc.) under the HHPD grant, and submit

the PAR associated with each dam. (See Appendix B, *Definitions*, for a definition of PAR.)

2. The percentage of dams with subrecipients that have implemented floodplain management plans, and the PAR associated with each dam.

For projects to rehabilitate or remove eligible dams, demonstrate the reduction in consequences by submitting the following information:

1. Anticipated losses avoided as a result of rehabilitation of the dam and the PAR associated with the dam.
2. The losses avoided should be estimated based on the structure damage and loss of benefits of the dam if the risks (associated with the existing unacceptable risk to the public conditions) were not addressed and an adverse event at the dam were to occur (model the most probable failure mode and the design storm/hazard). Include all assumptions made in the estimation of losses avoided.

For example: A state has identified it has ten dams that meet the eligibility criteria for the HHPD grants, and chooses to move forward with projects for seven of these dams:

- The state would like to further study the failure modes and potential risks associated with four of the dams to better complete risk-based prioritization.
- The state has a good idea of the failure modes and risks associated with two of the dams and is confident that these two dams will be rated high on the risk-based prioritization method, so it chooses to begin preliminary engineering studies for future rehabilitation for these two dams.
- The state has one dam that has been studied, engineering analysis and design have been completed, and the project complies with EHP regulations, so the state would like to proceed with construction.

For this example, the performance metrics the state would submit with their application would be:

Number of eligible dams: 10

Number of dams being studied for better risk understanding: 4

1. Dam 1: PAR = 267
2. Dam 2: PAR = 315
3. Dam 3: PAR = 502
4. Dam 4: PAR = 640

Number of dams having planning and preliminary engineering studies completed: 2

5. Dam 5: PAR = 991
6. Dam 6: PAR = 853

Number of dams undergoing rehabilitation: 1

7. Dam 7: PAR = 1056

The performance metrics submitted would be:

- Percentage of eligible high hazard potential dam that have implemented pre-construction rehabilitation activities under the HHPD grant: **6/10 = 60%**
- Percentage of HHPD grant subrecipients that have developed floodplain management plans: **7/10 = 10%** (assuming all projects have developed the floodplain management plan)
- Total non-federal investment (including in-kind contributions) applied toward the rehabilitation of eligible high hazard potential dams under the HHPD grant: Through accounting the state determines they have invested 2 million and the award was $3 million, so they have invested 67% of the total award. (States should report all non-federal investment in this metric but should be able to show a minimum **of 35% of the award**.)
- Total losses avoided as a result of dam rehabilitation projects completed under the HHPD grant: Estimated infrastructure, social, and environmental impacts (see below for example assumptions)

Example Assumptions:

- For all eligible dams in the state, the modeling software and breach conditions used to estimate the inundation zone and PAR must be submitted. The software and breach conditions (and any other applicable assumptions) should be the same for all dams in that state.
- The estimate of losses avoided is based on the assumption that a dam breach is avoided by rehabilitation. Estimated damage to infrastructure in the inundation zone is summed to approximate financial losses. Details about how the financial losses are estimated should be included.
- Losses avoided should also include details about social and environmental consequences that would be avoided by bringing the dam into compliance with state dam safety standards. For example: if the dam is a water supply dam, impacts of failure would include loss of revenue and the displacement people who rely on the resource. Breach of the dam would also cause environmental damage downstream and impact a protected wildlife species.

5.4 GRANT MANAGEMENT PLAN

Applicants must submit a Grant Management Plan documenting the process for the administration of the HHPD grant. The Grant Management Plan should describe the methods the

SAA will use to manage the tasks and contractors, and monitor and report on progress, including proposed accountability measures. At a minimum, the Grant Management Plan must include:

i. Designation of the SAA responsible for program administration.
ii. Identification of the state official responsible for all matters related to the High Hazard Potential Dam Rehabilitation Grant Program.
iii. Determination of staffing requirements and sources of staff necessary for administration of the program.
iv. Establishment of procedures to:
    1. Identify and notify potential subrecipients of the availability of the program.
    2. Ensure potential subrecipients are provided information on the application process, program eligibility, including the requirement for a FEMA-approved mitigation plan that includes all dam risks, and key deadlines.
    3. Determine subrecipient eligibility, including the requirement for a FEMA-approved mitigation plan
    4. Submit revisions or amendments for FEMA review and approval. See Section 2.1.1, *Applicant*.
    5. Conduct environmental and floodplain management reviews.
    6. Establish priorities for selection of projects.
    7. Process requests for advances of funds and reimbursement.
    8. Monitor and evaluate the progress and completion of the selected projects.
    9. Review and approve cost overruns.
    10. Process appeals.
    11. Provide technical assistance as required to subgrantee(s) including coordination with State Hazard Mitigation Officer regarding mitigation plan requirement.
    12. Comply with the administrative and audit requirements of 2 CFR parts 200 and 3002.
    13. Provide quarterly progress reports to FEMA on approved projects.

5.4.1 Management and Administration (M&A) Costs

Management and administration (M&A) activities are those directly relating to the management and administration of HHPD funds, such as financial management and monitoring. A maximum of up to 10 percent of HHPD funds awarded may be retained by the state, and any funds retained are to be used solely for M&A purposes associated with the HHPD award. Subrecipients may also retain a maximum of up to 5 percent of the funding passed through by the state solely for M&A purposes associated with the HHPD award. Applicant requests for management costs must be included in the Program Work Plan. Subrecipient management cost activities must be added to the scope of work section and reflected in the cost estimate section of subgrant applications.

Applicants and subrecipients who do not receive awards/subawards will not receive reimbursement for management costs.

5.5 OPERATION AND MAINTENANCE PLAN REQUIREMENTS

REQUIREMENT

***33 USC § 467f–2 (c)(2)(C) Grant assurance**: As part of a project grant agreement under subparagraph (B), the Administrator shall require the non-Federal sponsor to provide an assurance, with respect to the dam to be rehabilitated under the project, that the owner of the dam has developed and will carry out a plan for maintenance of the dam during the expected life of the dam.*

***33 USC § 467f–2 (d)(2)(C)** Non-Federal sponsor requirements: To receive a grant under this section, the non-Federal sponsor shall commit to provide operation and maintenance of the project for the 50-year period following completion of rehabilitation*

***33 USC § 467f–2 (h)(2)** None of the funds provided in the form of a grant or otherwise made available under this section shall be used to perform routine operation or maintenance of a dam.*

5.5.1 HHPD Operation and Maintenance for Dams

A commitment to provide operation and maintenance (O&M) is required as a condition of funding under the HHPD grant program. O&M plans provide guidance and instructions to project personnel for the safe O&M of the dam. Safe operation and consistent monitoring of a dam helps protect it against deterioration and prolong its safe operating capacity.

To be considered eligible for the grant, subrecipients must demonstrate a commitment to provide O&M of the project for the 50-year period following completion of rehabilitation (or the expected life of the dam, whichever is longer) and provide assurance that the owner of the dam has developed and will carry out a plan for O&M of the dam during the expected life of the dam.

Applicants can demonstrate this commitment by submitting an O&M Plan for the dam that also includes the following required documents:

Routine Operation and Maintenance Activities

Routine operation and maintenance activities are not eligible for HHPD funding. See Appendix B for the definition of routine operation and maintenance.

- O&M Agreement: The O&M Agreement demonstrates the commitment to O&M, where all applicable parties enter a legally binding contract to provide O&M of the project for the 50-year period following completion of rehabilitation. See Section 5.5.2, O&M Agreement, for more information.
- O&M Financial Plan: The O&M Financial Plan demonstrates the subrecipient will have adequate funding resources for O&M activities to be carried out over 50-year period following completion of rehabilitation project. See Section 5.5.3, O&M Financial Plan, for more information.

Subrecipients may choose to use an existing O&M Plan or develop one that meets their state standards as long as the O&M Agreement and O&M Financial Plan are included as attachments. Generally, the basic elements that should be included in the O&M Plan are presented in Appendix G, O&M Plan Template.

After the completion of a project funded by HHPD, FEMA will conduct periodic audits of O&M records. If FEMA determines the recipient or subrecipient fail to comply with the provisions of the O&M Plan, O&M Agreement, or O&M Financial Plan, FEMA may Terminate the award (see Section 7.4.1, Termination, and Section 7.4.2, Additional Specific Award Conditions or Terminations). The appropriate portions of FEMA financial assistance provided for other practices will be adversely affected by the violation. In the case of failure to comply, the federal government reserves the right to take any further actions it deems necessary.

5.5.2 O&M Agreement

Subrecipients are required to provide an O&M Agreement demonstrating their commitment to providing O&M of the project for the 50-year period (or the expected life of the dam) following completion of rehabilitation. The O&M Agreement must describe all parties who have O&M responsibilities associated with the dam and provide a legally binding contract among those parties. The O&M Agreement is a legally binding contract that will be enforced as necessary to protect the interests of the federal investment and the general public. The O&M Agreement may be attached to or incorporated into the O&M Plan. See Appendix G.1, Sample O&M Agreement and Financial Plan, for an example of a combined O&M Agreement and Financial Plan.

5.5.3 O&M Financial Plan

Subrecipients must include a financial plan that demonstrates enough funds are available to implement the O&M activities described in the O&M Plan. The O&M Financial Plan may be attached to or incorporated into the O&M Plan. See Appendix G.1, *Sample O&M Agreement and Financial Plan*, for an example of a combined O&M Agreement and Financial Plan.

The O&M Financial Plan must include:

- An estimate of average annual costs (materials, equipment, services, facilities) required to operate the dam, maintain the components, and provide any necessary replacements (including structural components) to ensure the dam operates as intended over the 50-year expected life of the dam.
- Sources of funding for the 50-year period following completion of rehabilitation project.
- Assurances that the dam owner will have adequate resources available.
- Assurances that the financial plan will be reviewed and updated (due to changes in needs, inflation, etc.).
- Strategy to address risk at the end of the expected life of the dam (e.g. capital re-investment, decommissioning the dam, complete removal, etc.).

5.6 HHPD FLOODPLAIN MANAGEMENT PLAN REQUIREMENTS

REQUIREMENT

33 USC § 467f–2 (e) (e) Floodplain management plans

(1) In general As a condition of receipt of assistance under this section, the non-Federal sponsor shall demonstrate that a floodplain management plan to reduce the impacts of future flood events in the area protected by the project—

(A) is in place; or

(B) will be—

(i) developed not later than 1 year after the date of execution of a project agreement for assistance under this section; and

(ii) implemented not later than 1 year after the date of completion of construction of the project.

(2) Inclusions A plan under paragraph (1) shall address—

(A) potential measures, practices, and policies to reduce loss of life, injuries, damage to property and facilities, public expenditures, and other adverse impacts of flooding in the area protected by the project;

(B) plans for flood fighting and evacuation; and

(C) public education and awareness of flood risks.

(3) Technical support

The Administrator may provide technical support for the development and implementation of floodplain management plans prepared under this subsection.

5.6.1 Background

Floodplain management is a continuous process of making decisions about whether and how floodplain lands and waters are to be used (FEMA, 1994). Floodplain management plans are designed to identify and implement actions to reduce or eliminate the adverse impacts of future flood events in the project area by recognizing all flood risks and residual risks associated with the dam. Applicants are encouraged to implement sensible floodplain management measures, practices and policies to reduce loss of life, injuries, damages to property and facilities, public expenditures, and other adverse impacts associated with flooding; to preserve and enhance natural floodplain values; and address measures that will help preserve levels of protection provided by the project. HHPD floodplain management plans support dam safety by establishing public policy that promotes public risk awareness and

HHPD Floodplain Management Plans

HHPD floodplain management plan requirements differ from typical floodplain management plans. The purpose of the HHPD floodplain management plan is to specifically address the impacts of the dam for which a HHDP grant has been awarded. HHPD floodplain management plans may be dam-specific and focus on the area impacted by the dam that is undergoing rehabilitation or removal.

Construction Projects

For the HHPD grant program, floodplain management plans are only required for construction projects and should be based on post-project floodplain conditions.

community planning. HHPD floodplain management plans can also be useful in the development of community warning and evacuation planning.

The concepts contained in this guidance are adapted from the U.S. Army Corps of Engineers (USACE) Policy Guidance Letter (PGL) No. 52, *Floodplain Management Plans* and were developed to closely follow the 1994 Unified National Program for Floodplain Management and to ensure compatibility with the NFIP's Community Rating System (CRS).

5.6.2 HHPD Floodplain Management Plan Requirements

A HHPD floodplain management plan is a condition of grant award for construction projects. The HHPD floodplain management plan may either be in place, or developed not later than one year after the date of execution of a project agreement for assistance; and implemented not later than one year after the date of completion of construction of the project. If a HHPD floodplain management plan is in place, it must be submitted with the HHPD application.

Dam Removal

It is recognized that a HHPD floodplain management plan for a dam removal project may be abbreviated since there will likely be fewer strategies to address residual risk than if the dam were to remain. It is still important to characterize the changed flood risk due to a dam removal and ensure that affected property owners are aware of the changed risk and that other existing plans (such as evacuation plans/procedures) are updated accordingly.

For the purposes of the HHPD grant program, the HHPD floodplain management plan requirements differ from typical floodplain management plans. HHPD floodplain management plans may be dam-specific and focus on the area impacted by the dam that is undergoing rehabilitation or removal (see Appendix B, Definitions, for definitions of "area impacted by the dam" and "rehabilitation"). The purpose of the HHPD floodplain management plan is to specifically address the impacts of the dam or dams for which a HHDP grant has been awarded. The HHPD floodplain management plan may function as a stand-alone plan that does not modify the floodplain ordinance in affect to comply with the NFIP. For the HHPD grant program, HHPD floodplain management plans must address the following to meet the requirements:

- Potential measures, practices, and policies to reduce loss of life, injuries, damage to property and facilities, public expenditures, and other adverse impacts of flooding in the area impacted by the project.
- Plans for flood fighting.
- Plans for evacuation.
- Public education and awareness of flood risk.

Meeting the requirement for the HHPD floodplain management plan can be accomplished in several ways. Applicants may have in-place or choose to develop:

- A dam-specific, stand-alone, local plan that is limited to the area impacted by the dam project and implemented by the applicant, subrecipient, dam owner, and others.

- A state or local floodplain management plan that meets CRS requirements if FEMA determines the plan adequately addresses the flood risk reduction strategies associated with the dam as required by the HHPD program. For additional information, see Section 5.6.7.4, *Community Rating System*.
- A floodplain management plan that has been developed in accordance with the requirements of USACE's PGL No. 52 for local flood damage reduction projects.

If applicants do not have (in-place) a floodplain management plan that meets minimum HHPD grant program requirements at the time of award, the application must include a signed statement from the applicant that the plan will be developed within one year after the date of execution of a project agreement and implemented within one year of completion of construction. For example, a project may receive HHPD funding for planning and engineering studies during the first grant cycle, funding for permitting and design during the second grant cycle, and funding for construction during the third grant cycle. The applicant for this project would need to develop the HHPD floodplain management plan within the first year funding was received, but would have until one year after the construction was completed to implement the HHPD floodplain management plan.

5.6.3 Coordination and Implementation: Roles, and Responsibilities

Development of the HHPD floodplain management plan should be a shared responsibility of the dam owner and local government with authority to implement policies to protect the public and regulate development. HHPD floodplain management plan development should include the involvement of key partners and stakeholders including representatives of the local government, emergency managers, first responders, planners, and state agencies including dam safety and state hazard mitigation offices, as well as technical resources afforded by federal agencies such as FEMA, USACE, and Natural Resources Conservation Service (NRCS).

Roles and responsibilities must be clearly defined in the HHPD floodplain management plan. Because different entities may be responsible for different elements of the HHPD floodplain management plan, all parties named in the plan must sign concurrence that they agree to implement their roles. For example, the applicant may be responsible for public education and awareness of flood risks, state and local emergency management may be responsible for plans for flood fighting and evacuation, and the dam owner may be responsible for potential measures and practices (such as interim risk reduction measures) that reduce the loss of life, injury, and damage to property downstream of the dam during the planned life span of the dam. Each entity must have clearly defined roles and HHPD floodplain management plans should include documentation that they are aware of their roles and agree to implement them.

5.6.4 HHPD Floodplain Management Plan Development Process

The following process should be followed and documented to ensure development and implementation of the HHPD floodplain management plan involves the appropriate stakeholders and addresses the needs of the local community:

Step 1: Coordination

There should be an identified party (i.e., planner, floodplain manager, or planning committee) established by the applicant, the entity responsible for overall accomplishment of the HHPD floodplain management plan. Each stakeholder named in the HHPD floodplain management plan should have clearly defined roles and responsibilities and sign concurrence that they are aware of their roles and agree to implement them.

Step 2: Public Involvement

There should be active public involvement throughout the HHPD floodplain management plan development process. This should include coordination with other local, regional, state, and federal agencies and non-governmental groups. Documentation or records of meetings and public involvement should be included in the HHPD floodplain management plan.

Inundation Map Distribution

It is best practice to make inundation maps available to the public, however, applicants and subrecipients should check with the dam owner to determine if there are security measures in place that prohibit general distribution. In situations where there are legitimate security concerns, inundation map information should be shared with emergency management officials and other officials that need the inundation information to make risk informed decisions.

Step 3: Post-Project Floodplain Hazard Assessment

A post-project floodplain hazard assessment should be conducted to help identify problems, adverse impacts, and other risks associated with post-project floodplain conditions. This is best done by determining and describing the inherent characteristics of the floodplain and post-project flood risk in the project area. These characteristics include, but are not limited, to:

- **A description of the flood hazard**: The calculation of flood levels and determination of flood risk should consider both existing and future conditions over the expected life of the dam. For more information, see Appendix B, *Definitions*.
- **A description and delineation of the floodway and natural storage areas**: At a minimum, the upstream and downstream reach of stream impacted by the dam rehabilitation project should be identified. This will help determine the study area as well as identify the local governments and other stakeholders that should be consulted.
- **A description and delineation of different flood inundation scenarios**: Identify the impacts of the dam rehabilitation project on the flood elevations for a range of frequent and infrequent flood events. Planners should work with an experienced water resources engineer to consider the following:
    - Does the dam rehabilitation maintain or decrease the level of flood protection for the areas identified as high hazard flood risk based on the current Flood Insurance Rate Map (designed or non-designed incidental flood prevention)?

  - How does the dam rehabilitation project impact the flood flow to downstream areas? Analyze a range of recurrence interval events including the 2-, 10-, 25-, 50-, 100-, and 500-year and/or design flood events.
  - Does the dam rehabilitation impact operational releases, emergency spillway operation, or maximum reservoir levels during rain or other flood events?
  - For dam removal projects, the removal of the dam may increase the magnitude and timing of flood flows to downstream areas. Any adverse impacts on a range of frequent and infrequent recurrence interval events should be identified, documented, and mitigated.
- **A characterization of the post-project conditions associated with incremental, non-breach, and residual risk** (see Appendix B, *Definitions*): For the flood inundation scenarios identified above, potential consequences should be estimated. At a minimum, the following potential consequences should be considered:
  - Estimated economic losses due to the flooding event.
  - Number of residential and commercial insurable structures.
  - Critical facilities.
  - Community Lifelines[4],
  - Critical utilities.
  - Transportation network.
  - Local governmental public expenditures for operations to prepare for and recover in the event of flooding.

  Also include a description of the natural and beneficial values including potential recreation areas, open space, wetlands, and wildlife preserves, etc.

Step 4: Goals

Based on the problems and needs identified through the planning process, goals should be set, and strategies developed to meet those goals. At a minimum, the following goals and corresponding strategies should be described in the HHPD floodplain management plan:

- **Potential measures, practices, and policies to reduce loss of life, injuries, damage to property and facilities, public expenditures, and other adverse impacts of flooding in the area impacted by the project:** Potential measures may include structural modification to the stream conveyance system, removal or relocation of at-risk structures, floodproofing of at-risk structures, implementation of stronger building standards to account for increased flood depth or velocity, actions and policies that will be implemented to address residual flood risk etc. This section should also address the planned schedule for study or implementation. Risk reduction measures may be included in the state or local hazard mitigation plan as well.

[4] [4] See FEMA Community lifelines for more information: https://www.fema.gov/LIFELINES/.

- **Plans for flood fighting and evacuation:** Plans developed by the emergency manager in cooperation with the dam owner, local government, and first responders should include flood fighting and evacuation strategies for operational releases, frequent and infrequent recurrence interval events, as well as potential dam failure scenarios. The following considerations should be addressed in plans for flood fighting and evacuation:
  - Using the depth, velocity, and timing information resulting from hydrologic and hydraulic (H&H) modeling (use the post-project conditions for the area impacted by the dam, both upstream and downstream), the plan should address the locations of critical facilities, venerable populations, and the transportation network. The locations of flood fighting activities should be identified as well as an implementation plan including responsible parties and resources.
    - Include details of any agreements or memorandums of understanding regarding the stock pile of materials or on-call contractors).
    - Details about the responsibilities of each stakeholder, and what supplies are available (with contact lists) for these planned efforts.
    - Alternatively, if these plans exist in an EAP, a short summary and reference will suffice for the floodplain management plan.
  - The plans should address early warning system strategies (emergency alert system, automated alert calls, multimedia, social media measures, radio, etc.).
  - Plans should be consistent with the EAP for the dam. Note that EAPs are developed with the intent of saving the dam from failure. EAPs typically include notification procedures to facilitate communication between the dam owner/operator and emergency management officials. Evacuation is conducted by the local jurisdiction, so emergency management officials must be well informed about conditions at the dam in order to make risk-informed decisions. It is best practice to incorporate the notification procedures into the HHPD floodplain management plan to facilitate communication during an incident.
  - The evacuation plan should address both shelter-in-place and horizonal evacuation. For more information, see FEMA's Emergency Operations Planning: Dam Incident Planning Guide and FEMA's guidance on Planning Considerations Evacuation and Shelter-in-Place.
  - The plans should address the frequency for drills and exercises.

Education and Outreach

Dam inundation zones often extend beyond community boundaries. HHPD floodplain management plan public education and awareness of flood risk strategies should include all areas impacted by the dam project, both upstream and downstream of the dam, even if they are beyond the jurisdiction's boundaries.

Dam Incident Coordination

EAPs typically include notification procedures to facilitate communication between the dam operator and emergency management officials. Evacuation is conducted by the local jurisdiction, so emergency management officials must be well informed about conditions at the dam in order to make risk-informed decisions.

- **Public education and awareness of flood risks:** A public education and outreach program should provide information to all potentially impacted property owners, residents in and near the floodplain upstream and downstream of the dam, as well as those whom use the recreational facilities, transportation network, or other resource susceptible to inundation. Other best practices may include:
  - Providing and maintaining public access to the most current dam flood hazard (inundation) maps and related information. The HHPD floodplain management plan should specifically describe how this will be done and where access is to be provided (i.e., planning office, library, etc.).
  - Providing inundation maps created or used in the HHPD floodplain management plan to the relevant jurisdiction's floodplain manager.
  - Encouraging the development of personal flood preparedness plans. For more information, visit FEMA's Ready.gov.
  - Using multiple strategies (emergency alert system, automated alert calls, multimedia, social media measures, radio, etc.) to communicate flood risk, providing information regarding flood hazards, flood warning, and flood evacuation.
  - Consider including dam breach inundation mapping to subdivision parcels to educate potential buyers of potential flood hazards and encourage building new structures outside the inundation area.
  - Consider upstream and downstream dam inundation zones in the planning and zoning process for new development that may be adversely impacted by the dam.
  - Identifying inundation maps as a flood map need/data in FEMA's Coordinated Needs Management Strategy (CNMS) tool.
  - On an annual basis, information should be provided to owners and residents of flood prone property concerning the residual flood risk and availability of flood insurance. The HHPD floodplain management plan should be specific in describing what information will be provided (i.e., Living with Dams: Know Your Risks, training materials, and other resources), types of outreach/community engagement, strategies for coordination with communities impacted by the dam, and describe when and how the information will be shared.

The goals section of the HHPD floodplain management plan should describe the strategies and tools considered as well as reasons for including or not including the information.

5.6.5 General Notes

While there is a basic HHPD floodplain management plan outline provided in Appendix H, *Sample HHPD Floodplain Management Plan Outline*, the plans will vary based on many dam project-specific conditions and characteristics such as residual risk; floodplain characteristics; the existing programs, policies, and measures in place; and the span of control and influence of the dam owner and/or subrecipient. In most cases, no single strategy will be sufficient; rather, a combination of strategies and tools will be needed to further reduce the residual risk associated with the dam to acceptable levels. By selecting the best mix of these strategies, decision makers

can tailor the HHPD floodplain management plan to the characteristics of a specific floodplain, the span of influence and control of the dam owner/operator, and to the needs of impacted property owners. The combination must be based on what is available, practicable, affordable, and likely to be successful for the floodplain in question, keeping in mind the dual purposes of floodplain management: reducing loss of life, disruption, and damage; and recognizing the natural and beneficial functions of floodplains.

FEMA can provide technical support for the development and implementation of HHPD floodplain management plans. Grant funds may be used for the development of the HHPD floodplain management plans.

5.6.6 Floodplain Management Plan Implementation

To meet minimum HHPD requirements, applicants must implement the HHPD floodplain management plan not later than one year after completion of construction of the funded project. To meet the requirements for implementation, the stakeholders in the FPM must begin implementing their roles and responsibilities. The HHPD floodplain management plan must be submitted to the community and the relevant floodplain management officials. It is recommended as a best practice to include the HHPD floodplain management plan as an annex to the local hazard mitigation plan during the next update cycle.

5.6.7 Recommended Best Practices

5.6.7.1 Coordinated Plan Preparation

It is recommended as a best practice to develop the HHPD floodplain management plan concurrently with the feasibility studies that are conducted for the proposed project, relevant hazard mitigation plan(s), as well as any other plans that address dam risk. This will increase efficiency and collaboration and ensure that the HHPD floodplain management plan preparation and project planning are compatible.

5.6.7.2 Hazard Mitigation Plans

Much of the effort and information needed to support the preparation of a HHPD floodplain management plan will likely be developed as part of the hazard mitigation planning process and during planning and design phases of a rehabilitation project, including elements such as:

- A description of the flood hazard, including existing and future flood risk.
- A description and delineation of the floodway and natural storage areas.
- A description of the natural and beneficial values including potential recreation areas, open space, wetlands and wildlife preserves.
- H&H data, including flood damage data and other technical data. H&H data must be calculated for the existing and for the future conditions at full life of the dam.
- Potential risk reduction measures, strategies and goals to reduce or eliminate the impacts of flooding.

5.6.7.3 Watershed Management Plans

Some states may have watershed management plans for watersheds having interconnected lakes with dams in series. Dam owners, operators, and key agencies (Federal, State, and local) should work together to share information and develop communication plans and procedures for lowering dam reservoir levels in preparation for major future potential flood events.

5.6.7.4 Community Rating System (CRS)

Applicants may choose to develop HHPD floodplain management plans that qualify for CRS credit. The CRS is a voluntary program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. Communities that participate in the CRS earn credit points that qualify policyholders in their jurisdictions for a discount on NFIP insurance premiums. Communities receive a CRS "class" rating, from Class 10 through Class 1. Each class requires 500 credit points and earns a 5% discount for properties within the Special Flood Hazard Area (SFHA), up to a maximum of a 45% discount (properties outside the SFHA receive a smaller discount).

Community Rating System

For more information about the CRS program, visit https://www.fema.gov/national-flood-insurance-program-community-rating-system.

CRS communities that develop a HHPD floodplain management plan may receive credit under Activity 630 - (Dams) of the Warning and Response category of the CRS (maximum credit of 160 points). To receive maximum credit, all dams that affect the community must be addressed in the CRS-creditable floodplain management plan.

Under CRS Activity 630 (Dams), credited activities include having:

- **A state dam safety program (SDS)**: The maximum credit for this element is 45 points. Communities that could be affected by an adverse event a high hazard-potential dam must document the risk with a description of the potential impacts and an inundation map. The community must comply with the state dam safety program and meet state dam safety standards.
- **A dam failure threat recognition system (DFR)**: The maximum credit for this element is 30 points. This credit is provided for primary and secondary dam failure threat recognition procedures to notify a community if a breach is likely, or is occurring, to give the community and residents time to respond.
    - Primary dam failure threat recognition (DFR1) credit can be earned for procedures in which the operator of the dam notifies local emergency managers of a potential or actual dam breach. This could be based on a predetermined reservoir level, water flowing over the spillway, structural problems discovered in the dam, or other cause for alarm.

CRS Floodplain Management Plans

CRS state and local floodplain management plans are required to be updated at least every 5years. Updates involve a 10-step planning process that requires public involvement, coordination with other agencies and organizations, and adoption by the community's governing body.

(The EAP may include notification procedures which can be incorporated onto the HHPD floodplain management plan.)

- Secondary dam failure threat recognition (DFR2) can be earned for a backup system that includes sensors or cameras on the dam and/or a gage, camera, or other river-level monitoring system located between the dam and the community. This information must be directly available to the emergency manager to receive credit.

- **A dam failure warning (DFW):** The maximum credit for this element is 35 points. This credit is provided for public notification systems and messages that communicate potential or imminent dam failures to the population at risk (PAR). Warning messages should include information about when flooding is predicted to occur, its expected severity, and appropriate response actions (e.g., evacuation routes, safe shelters, or protective actions).
- **A dam failure response operations (DFO)**: The maximum credit for this element is 30 points. This credit is provided for the development of dam failure response operations that identify flood response scenarios, responsibilities, special need populations, and necessary resources. Dam failure response operations need to be spelled out in the dam failure warning and response plan. They must include appropriate actions to be implemented when the dam failure flood threatens or occurs. The actions are conducted by the community and other cooperating agencies and organizations.
- **Coordination of dam failure critical facilities planning (DCF)**: The maximum credit for this element is 20 points. This credit is provided for having information about all critical facilities that could be affected by a dam failure included in the community's dam failure response plan. Special warning arrangements for schools, nursing homes, and other critical facilities are also credited under DCF.

Note: To receive any Activity 630 credit other than SDS, the community must receive some credit in each of the elements DFR, DFW, DFO, and DCF.

It is expected that if an applicant meets the grant application criteria for HHPD floodplain management plans, the applicant may also qualify for CRS credit under Activity 630. CRS activities most often are administered in the floodplain management office, which may be in the planning, building, engineering, public works, community development, or emergency management office, depending on the community's preference.

5.6.7.5 Data from Other Sources

Much of the background data for completing a HHPD floodplain management plan may already exist. The following sources may provide helpful information:

- National Inventory of Dams (NID) / State Dam Safety Program – The NID and/or the state dam safety program can provide some key data to help inform the floodplain hazard assessment, especially when describing the overall characteristics of the dam. The weblink to the NID is: https://nid.sec.usace.army.mil.
- Emergency Action Plans (EAP) – An EAP is a formal document that identifies potential emergency conditions at a dam and specifies pre-planned actions to be followed to reduce consequences of the emergency. EAPs are typically prepared by the dam owner/operator

and include information about the actions to moderate or alleviate the emergency, notification procedures to assist the dam owner/operator in communicating with emergency management officials and other dam safety officials. In some instances, EAPs may already contain plans for flood fighting and evacuation. If that is the case, those specific plans can be summarized or incorporated into the HHPD floodplain management plan by reference. Similarly, if the EAP has inundation maps, these also can be incorporated by reference in to the floodplain hazard assessment.

- Local/Regional Hazard Mitigation Plans – Depending on the specificity of the local or regional hazard mitigation plan in addressing dam risk, it may have relevant information to inform the floodplain hazard assessment such as goals and objectives, strategies and tools for consideration, and may include some specific actions. All of these could be summarized and/or incorporated by reference into the HHPD floodplain management plan.
- Local Comprehensive / Land Use Plans – A local comprehensive plan is a document designed to guide the future actions of a community. It presents a vision for the future with long-range goals and objectives for all activities that affect the local government. These plans can be helpful primarily with the identification or alignment of goals and objectives in the HHPD floodplain management plan.

It is common for regulations and programs to be administered by different offices at the local level, mitigation planning and CRS planning are not always well coordinated. As a result, jurisdictions may miss opportunities to implement their programs more effectively and efficiently. Also, if a jurisdiction's mitigation planning does not incorporate certain elements that receive CRS credit, it may miss opportunities to reduce the cost of flood insurance for its residents. It is recommended that the community review all FEMA planning program guidelines, including HHPD, mitigation planning and CRS. It is the community's option, but with proper planning, one plan document can fulfill the planning criteria of several FEMA programs.

5.7 RISK-BASED PRIORITIZATION METHOD REQUIREMENTS

REQUIREMENT

33 USC § 467f–2 (f) Priority system: The Administrator, in consultation with the Board*, shall develop a risk-based priority system for use in identifying eligible high hazard potential dams for which grants may be made under this section.

**Board refers to the National Dam Safety Review Board*

5.7.1 Risk-Based Prioritization Method Requirements

To be eligible for HHPD funding, applicants must have a FEMA-approved risk-based prioritization method or use the method presented in this Guidance. The risk-based prioritization method will be used by state recipients to rank eligible high hazard potential dams and decide which activities to fund. The prioritization method compares projects based on common failure modes, potential consequences resulting from a dam incident, and the expected risk-reduction and other benefits of potential projects. States may use their own risk-based prioritization methods if they meet the minimum FEMA criteria.

Documentation

Regardless of which method is used, all documentation must be submitted to FEMA for review and approval by the application deadline.

To meet the minimum FEMA criteria, the risk-based prioritization method must:

- Evaluate static, hydrologic, and seismic failure modes.
- Evaluate downstream consequences resulting from a dam incident.
- Comply with FEMA's Federal Guidelines for Dam Safety Risk Management for screening-level risk analysis.
- Be objective and reproducible. It is noted that some subjectivity is likely to exist with any prioritization method, however this should be limited to the extent possible.
- Be consistent across the dam inventory for calculations or numerical estimates (e.g. estimate PAR for the same failure scenarios in the same way for each dam considered).
- Document all assumptions used in the process.

Technical Assistance

Throughout the application development phase, FEMA will provide technical assistance and training to help applicants understand the risk-based prioritization method requirement.

5.7.2 Risk-Based Prioritization Process

Once a state applicant receives funding under the HHPD program, it must be determined which eligible activities can be funded for that grant cycle.

If it is determined that the allocated amount will not be enough to fund all eligible activities, state recipients will either use their own FEMA-approved risk prioritization method that meets the criteria listed in Section 5.7.1, *Risk-Based Prioritization Method Requirements,* or they may choose to use FEMA's risk-based prioritization method (see Section 5.7.3, *FEMA's Risk-Based Prioritization Method*).

Note that if recipients choose to use their own FEMA-approved method, they will still have to use the method twice, once for the existing dam and again for the dam's post-project condition.

See Figure 5.6-1 for a flowchart illustrating the risk-based prioritization process.

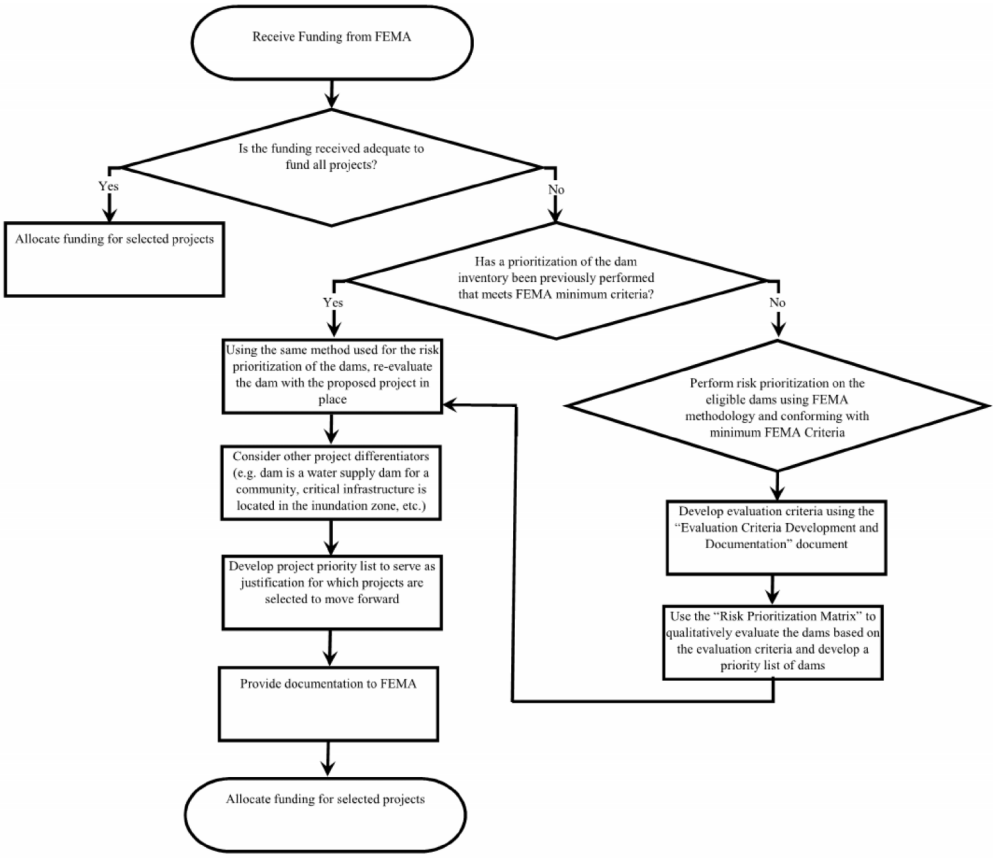

Figure 5.6-1: Risk-Based Prioritization Process

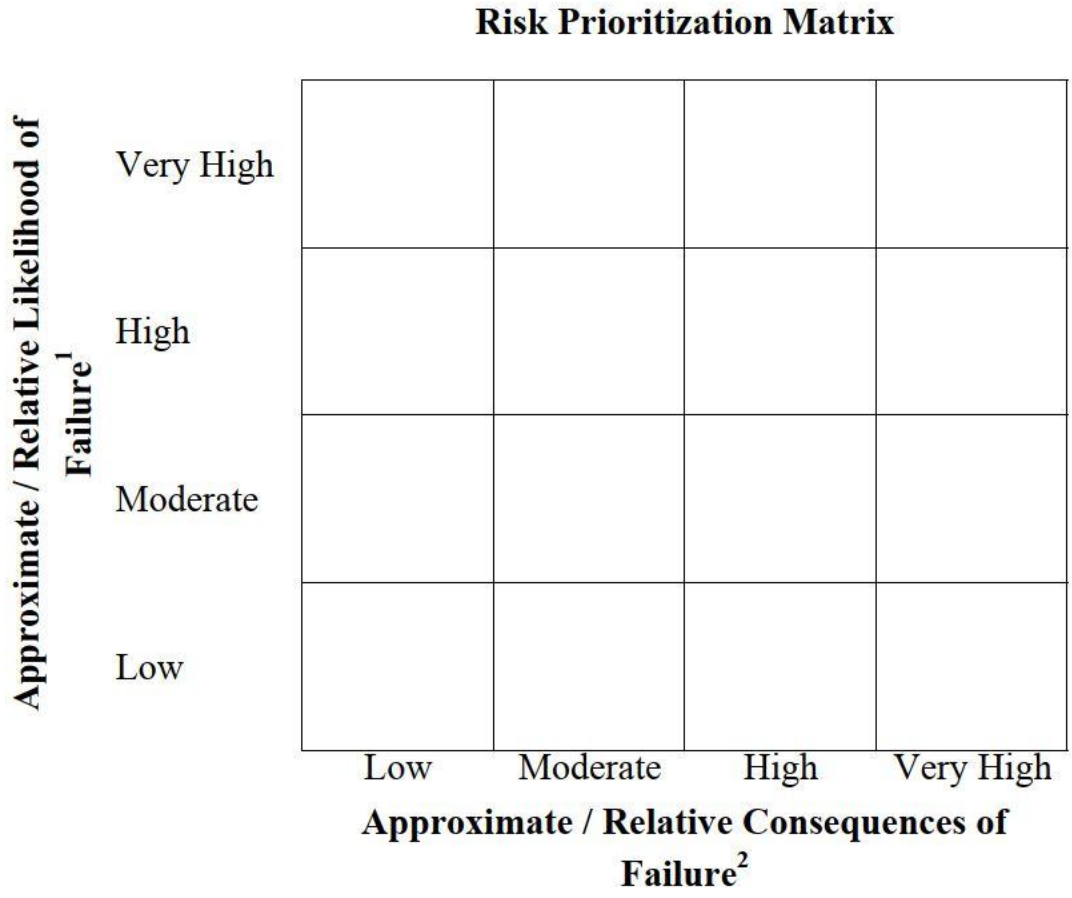

Figure 5.6-2: Risk Prioritization Matrix

Step 3: For dams with similar risk values, apply differentiators to rank the dams

As the dams are plotted in the Risk Prioritization Matrix, some will have similar rankings. When this happens, differentiating factors (e.g. PAR, value of the dam as an asset, critical infrastructure at risk, etc.) can be used to further assess the relative consequences and justify the ranking of the dams.

Step 4: Evaluate potential projects using the same methodology/matrix

Step 4 of the process is to plot the post-project condition of the dam using the same Risk Prioritization Matrix. This step helps determine which projects best reduce risk and provides justification of the project priority list from which projects are selected.

5.7.3 Section 3: FEMA's Risk-Based Prioritization Method

To support state applicants, FEMA developed a risk-based prioritization method that can be used to rank dams based on screening-level risk assessments. See Appendix I, *Example Risk-Based Prioritization Method*, for an example of this method.

There are four steps of FEMA's risk-based prioritization method:

- **Step 1**: Identify static, hydrologic, and seismic failure modes for each dam.
- **Step 2**: Determine qualitative risk values for each failure mode for each dam and plot them in the Risk Prioritization matrix.
- **Step 3**: For dams with similar risk values, apply differentiators (e.g. PAR, value of the dam as an asset, critical infrastructure at risk, impact to Community Lifelines[5], etc.) to rank the dams.
- **Step 4**: Evaluate potential projects using the same methodology/matrix to determine which projects reduce risk reduction to acceptable levels. This step justifies the project priority list from which projects are selected.

The following paragraphs describe FEMA's method in more detail.

Step 1: Identify static, hydrologic, and seismic failure modes for each dam

To complete the first step of the method, failure modes are identified and quantified. The example factors listed below should be considered when applicable. These factors can be used to modify the likelihood of dam incident up or down, depending on whether they would contribute to or prevent failure. Additional factors should be considered as needed.

Hydrologic failure modes: For the hydrologic failure mode, evaluation criteria may include the following considerations:

- Frequency that the dam would be expected to overtop/exceed capacity.
- Percentage of the required inflow design flood that the dam can pass safely through its spillways (both capacity and erosion resistance of the spillways should be considered).
- Whether or not overtopping of the dam has been reported or observed.
- Spillway redundancy.
- Condition of the spillways.
- Non-routine operational issues.

Static failure modes: For the static failure mode, evaluation criteria may include the following considerations:

- Whether the dam meets state-required static stability criteria (or federal criteria if no state criteria exists).
- Dam safety observations and their severity (e.g. settlement, cracking, depressions/sinkholes, slumps/sloughs).
- Past seepage history.

[5] See FEMA Community lifelines for more information: https://www.fema.gov/LIFELINES/.

- Instrumentation readings.
- Known design and/or construction issues (e.g. outdated design features, lack of filter compatibility, nonfunctioning elements).
- Non-routine operational issues.

Seismic failure modes: For the seismic failure mode, evaluation criteria may include the following considerations:

- Whether the dam meets state-required seismic stability criteria (or federal criteria if no state criteria exists).
- Proximity of the dam to a high-risk seismic zone.
- Whether the embankment or the foundation is comprised of liquefiable materials.

If seismic analyses have been performed for the dams within the inventory, these analyses can be used to assess the relative likelihood of failure. The analyses may evaluate performance during a maximum credible earthquake (the largest hypothetical earthquake that could reasonably occur) and/or the operating basis earthquake (an earthquake the structure should be able to withstand and still operate). In lieu of an analysis or site-specific information, the peak ground acceleration for the site can be obtained from U.S. Geological Survey (USGS) for the dam location and used as a measure to judge the relative seismic risk at the dam (https://earthquake.usgs.gov/static/lfs/nshm/conterminous/2014/2014pga2pct.pdf).

Step 2: Determine qualitative risk values for each failure mode for each dam and plot them in the Risk Prioritization Matrix

To complete Step 2, the consequences associated with each failure mode are identified, quantified to assign risk values, and plotted in the Risk Prioritization Matrix. Factors to consider include (but are not limited to):

- Estimation of PAR during a dam incident.
- Estimation of warning time for the nearest PAR.
- Loss of benefits associated with the dam no longer functioning (e.g. water supply dam).
- Number of critical facilities (hospitals, senior care centers, emergency operation centers, fire stations, police stations, schools, utilities, data centers, transportation facilities, detention centers, and others) within the inundation zone (note that mobility issues with regards to warning time/time to evacuate certain populations should be considered).
- Impacts to community lifelines.
- Extent of economic/environmental impacts that could occur due to a breach event and for dam removal.
- Whether the EAP is current and has been recently exercised.

Risk values should be assigned based on an approximate probability of failure (adapted from California Department of Water Resources asset management process), where possible, as follows:

- Very High - Failure is likely to occur in less than 10 years.
- High - Failure is likely to occur in 10-100 years.
- Moderate - Failure is likely to occur in 100-1,000 years.
- Low - Failure is likely to occur in > 1,000 years.

The following guidance should be used in this process.

- Where calculations or numerical estimates are included as inputs into the method, the process to evaluate these estimates must be consistent across the dam inventory (e.g. PAR is computed for the same failure scenarios and estimated in the same way for each dam considered).
- Use judgement to evaluate whether a seismic, hydrologic, or static failure mode is most critical if the criteria being used cannot be tied to an approximate probability of failure.
- Where the dam project addresses a failure mode that is not the most critical failure mode for the dam, the project should be evaluated based on its risk reduction for the failure mode it is addressing. Where a project addresses multiple failure modes or fails to address the most critical failure mode, this should be considered a differentiator when ranking the projects.
- For dam projects that are not tied to capital improvements (e.g. planning-phase or design-phase projects) where the risk reduction cannot be qualitatively assessed, the project should be reviewed based on the risk level of the dam. Judgement will be needed to rank these projects and justification should be provided.
- If inundation mapping is available for use in these calculations, the basis of the inundation mapping should be reviewed for comparison (i.e. consistent dam safety guidelines were used in creation of the inundation mapping for the various dams considered). If inundation mapping is not available, the use of modeling software is recommended to estimate a "sunny-day" failure inundation zone for use in estimating the PAR and warning time.

See Appendix I, *Example Risk-Based Prioritization Method*, for example criterion. Note that failure modes are considered independently of associated consequences. The most severe combination is used to plot the dam on the Risk Prioritization Matrix (see Figure 5.6-2).

5.8 STATE AND LOCAL MITIGATION PLAN MITIGATION PLAN REQUIREMENTS

Hazard mitigation plans are prepared at the state, local, and tribal government levels. A hazard mitigation plan is a demonstration of the commitment to reduce risks from natural hazards and serves as a strategic guide for decision-makers as they commit resources. The HHPD grant program presents an incentive for states and local jurisdictions to include dams in their mitigation planning. This is a paradigm shift in the state of practice of dam safety, where dam safety has traditionally been thought of as the responsibility of the dam owner and regulator. The mitigation planning process provides all stakeholders the opportunity to collaborate and develop strategies to reduce risk to and from dams.

5.8.1 Dams to include in Hazard Mitigation Plans

The allocation of available HHPD grant funds is determined by the formula described in 33 USC 467f-2(g)(2). The funding formula is based on the number of eligible high hazard potential dams in the state, so each state that applies for HHPD funding is required to submit a list of eligible high hazard potential dams. See Section 2.2.1, *Eligibility Requirements*, and *Section 5.2, Eligible High Hazard Potential Dams.*

5.8.1.1 Hazard Potential Classification for Dams

The Federal Guidelines for Dam Safety; Hazard Potential Classification System for Dams (FEMA/ICODS, 2004) states that dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life. It should be noted that states may use other terminology to classify their dams. Table 5-2 provides additional information on hazard potential classification for dams (FEMA/ICODS, 2004).

Table 5-2: Hazard Potential Classification for Dams

Hazard Potential Classification	Loss of Human Life	Economic, Environmental, Community Lifeline Losses
Low	None Expected	Low and generally limited to owner
Significant	None Expected	Yes
High	Probable. One or more expected.	Yes (but not necessary for this classification)

5.8.1.2 Eligible High Hazard Potential Dams

At a minimum, state and local mitigation plans must address the subset of state-regulated dams considered eligible high hazard potential dams. Eligible high hazard potential dams are a subset of the dams the state determined fails to meet minimum state dam safety standards and pose an unacceptable risk to the public. For more information about how states determine which dams qualify as unacceptable risk to the public, see Section 2.2.1, *Eligibility Requirements*, and *Section 5.2, Eligible High Hazard Potential Dams*. Also see Appendix B, *Definitions*, for the definitions of Unacceptable Risk to the Public and Official Regulatory Notice.

5.8.1.3 Including All Dam Risk

For each dam eligible for the HHPD grant program, states determine the dam fails to meet minimum state dam safety standards and poses an unacceptable risk to the public. In addition to identifying the reasons the state has determined the dam is an eligible high hazard potential dam, "all dam risk" must be included in the FEMA-approved state and/or local hazard mitigation plan. All dam risk includes the following:

Incremental Risk

The risk (likelihood and consequences) to the pool area and downstream floodplain occupants that can be attributed to the presence of the dam should the dam breach prior or subsequent to overtopping, or undergo component malfunction or misoperation, where the consequences considered are over and above those that would occur without dam breach. The consequences typically are due to downstream inundation, but loss of the pool can result in significant consequences in the pool area upstream of the dam.

Non-Breach Risk

The risk in the reservoir pool area and affected downstream floodplain due to 'normal' dam operation of the dam (e.g. large spillway flows within the design capacity that exceed channel capacity) or 'overtopping of the dam without breaching' scenarios.

Residual Risk

The risk that remains after all mitigation actions and risk reduction actions have been completed. With respect to dams, FEMA defines residual risk as "risk remaining at any time" (FEMA, 2015, p A-2). It is the risk that remains after decisions related to a specific dam safety issue are made and prudent actions have been taken to address the risk. It is the remote risk associated with a condition that was judged to not be a credible dam safety issue.

In addition to considering dams that are eligible for HHPD funding, state and local governments are encouraged to consider the entire inventory of dams that have potential impacts in their planning areas (irrespective of hazard potential classification or eligibility for HHPD funding).

5.8.2 State Hazard Mitigation Plan Requirement for Applicants

To be eligible, state applicants must have in place (by the application deadline) a FEMA-approved state hazard mitigation plan that includes all dam risks and complies with the Robert T. Stafford Act, as amended by the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). FEMA will assess the applicant's state hazard mitigation plan against 44 CFR Part 201, Mitigation Planning, to determine if the plan complies with the requirement.

The requirements, as written in the Notice of Funding Opportunity (NOFO), are aligned with specific sections of the State Mitigation Plan Review Guide.

1. Does the plan describe how the state dam safety agency, other agencies, and stakeholders participated in the planning process and contributed expertise, data, studies, information, etc. relative to eligible high hazard potential dams?
2. Does the plan address all dam risk for eligible high hazard potential dams in the risk assessment?
3. Does the plan include mitigation goals to reduce long-term vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?
4. Does the plan prioritize mitigation actions to reduce vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?
5. Does the plan identify current and potential sources of funding to implement mitigation actions and activities for eligible high hazard potential dams that pose an unacceptable risk to the public?
6. Does the plan generally describe and analyze the effectiveness of local mitigation policies, programs, and capabilities that address eligible high hazard potential dams that pose an unacceptable risk to the public?
7. Does the plan describe the criteria for prioritizing funding for eligible high hazard potential dams that pose an unacceptable risk to the public?

Table 5-3 presents a crosswalk of the State Mitigation Plan Review Guide planning elements and the HHPD Grant Program NOFO requirements:

Table 5-3 Crosswalk of Mitigation Plan Requirements

NOFO Requirement	State Mitigation Plan Review Guide Planning Element
HHPD a. (1)	Element S2: Planning process
HHPD b. (2)	Element S6: Risk assessment
HHPD c. (3)	Element S8: Mitigation goals
HHPD d. (4)	Element S9: Mitigation actions
HHPD e. (5)	Element S10: Funding sources
HHPD f. (6)	Element S13: Local capabilities
HHPD g. (7)	Element S15: Prioritizing funding

5.8.2.1 HHPD 1 / Does the plan describe how the state dam safety agency, other agencies, and stakeholders participated in the planning process and contributed expertise, data, studies, information, etc. relative to eligible high hazard potential dams?

REQUIREMENT

44 Code of Federal Regulation §201.4(b) and (c)(1) Mitigation Planning

To meet *State Mitigation Plan Review Guide* Element S2 (planning process), does the plan describe how the state coordinated with other agencies and stakeholders? The plan must describe how other state and Federal agencies and other stakeholders were involved in the process. At a minimum, the plan must describe how the state coordinated with other agencies and stakeholders responsible for the following sectors:

a. Emergency management;
b. Economic development;
c. Land use and development;
d. Housing;
e. Health and social services;
f. Infrastructure; and
g. Natural and cultural resources.

Where coordination is not practicable, the plan must describe the limitations.

Coordination with many stakeholders (the state dam safety office, dam owner, emergency management officials, State Hazard Mitigation Officers (SHMOs), and others) may be necessary to obtain relevant information.

For each eligible high hazard potential dam that is included in the hazard mitigation plan, the state dam safety office is encouraged to coordinate with the dam owner as well as the state and/or local mitigation planning lead to determine which issues/risks the dam is facing so the information can be included for consideration in the state and/or local hazard mitigation planning process.

To meet this requirement with a specific focus on eligible high hazard potential dams, the plan must:

- Describe how the state dam safety agency, other agencies, dam owners, and stakeholders were involved in the process.
- Describe the types of data contributed, such as:
  - Location and size of the PAR as well as potential impacts to institutions and critical infrastructure/facilities/community lifelines.
  - Inundation maps, EAPs, floodplain management plans, and/or data or summaries provided by dam breach modeling software such as Hydrologic Engineering Center's River Analysis System (HEC-RAS), Decision Support System for Water Infrastructure Security (DSS-WISE) Human Consequences Module (HCOM), DSS-WISE Lite, FLO-2D, as well as more detailed studies.
- Where coordination is not practicable, the plan must describe the limitations.

5.8.2.2 HHPD 2 / Does the plan address eligible high hazard potential dams in the risk assessment?

REQUIREMENT

44 CFR §201.4(c)(2)(ii) and (iii)

To meet *State Mitigation Plan Review Guide* Element S6 (risk assessment), does the risk assessment include an overview and analysis of the vulnerability of jurisdictions to the identified hazards and the potential losses to vulnerable structures? The risk assessment must provide a current summary of the most vulnerable jurisdictions based on the state, local, and tribal, as applicable risk assessments. Vulnerability must be analyzed in terms of:

1. Jurisdictions most threatened by the identified hazards (based on hazard, location, extent, and probability).
2. Jurisdictions most susceptible to damage and loss from hazard events related to populations and assets (such as structures, infrastructure, critical facilities, and systems). These populations and assets may be located in the identified hazard areas or affected by the probability of future hazard events.

- The risk assessment must include a summary of potential losses to identified vulnerable structures based on estimates from the local and state risk assessment.

Special Consideration: *An overview or summary provides the results of the analysis and does not need to include the details from each local plan. An example is a list of key issues or problem statements that clearly describes the greatest vulnerabilities and compares losses across the state, allowing the state to determine mitigation priorities.*

For each eligible high hazard potential dam that is included in the hazard mitigation plan, the state dam safety office is encouraged to coordinate with the dam owner as well as the state and/or local community mitigation planning lead to determine which issues/risks the dam is facing so the information can be included in the state and/or local hazard mitigation plan.

The state-wide risk assessment focuses on areas most at risk by evaluating where population, infrastructure, and critical facilities are vulnerable to hazards and to what extent injuries or damage may occur. A FEMA mitigation planning risk assessment must follow the requirements set forth at 44 CFR Part 201 and does not involve the level of detailed technical engineering analysis required by the U.S. Army Corps of Engineers (USACE), the U.S. Bureau of Reclamation (USBR), etc. For the mitigation plan, all dam risk can be presented as a summary description. Detailed analyses are not required.

The state-wide risk assessment focuses on areas most at risk by evaluating where population, infrastructure, and critical facilities are vulnerable to hazards and to what extent injuries or damage may occur. Refer to the State Mitigation Plan Review Guide (pages 13-17) for more information.

To meet this requirement with a specific focus on eligible high hazard potential dams, the plan must:

- Provide a list of eligible high hazard potential dams that have been identified by the state, with name, National Inventory of Dams (NID) identification number, location by jurisdiction, and other relevant information, as well as a map.
  NOTE: Ensure sensitive and/or personally identifiable information is protected.
- Summarize state-wide vulnerabilities to/from eligible high hazard potential dams from hazards and the potential consequences associated with dam incidents, including:
  - Potential cascading impacts of storms, seismic events, landslides, wildfires, etc. on dams that might affect upstream and downstream flooding potential in terms of breach, non-breach, and residual risks.
  - Potential significant economic, environmental, or social impacts as well as multi-jurisdictional impacts from a dam incident.
  - Location and size of populations at risk from eligible high hazard potential dams as well as potential impacts to institutions and critical infrastructure/facilities/lifelines.
  - Methodology and/or assumptions for risk data and inundation modeling should be noted.
- Document limitations and describe the approach to address deficiencies.

5.8.2.3 HHPD 3 / Does the plan include mitigation goals to reduce long-term vulnerabilities from eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.4(c)(3)(i)

To meet State Mitigation Plan Review Guide Element S8 (mitigation goals), does the mitigation strategy include goals to reduce / avoid long-term vulnerabilities from the identified hazards?

- The plan must identify hazard mitigation goals representing what the state seeks to accomplish through mitigation plan implementation.
- The goals must be consistent with the hazards and vulnerabilities identified in the risk assessment.
- The goals must address reducing the vulnerability of jurisdictions within the state as well as the vulnerability of state-owned or operated buildings, infrastructure, and critical facilities.

Goals are broad, long-term policy and vision statements that explain what is to be achieved by implementing the mitigation strategy.

Hazard mitigation goals are broad, long-term policy and vision statements. Goals do not need to mention specific actions, dams, or use the term "high hazard potential dam." Projects submitted for consideration for HHPD funding must be consistent with the goals and objectives identified in the current, FEMA-approved hazard mitigation plan. To meet this requirement with a specific focus on eligible high hazard potential dams, the plan must:

- Address a reduction in vulnerabilities to/from eligible high hazard potential dams from hazards and the potential consequences associated with dam incidents as part of their own goals or with other long-term strategies. Examples include:
  - Reducing number of eligible high hazard potential dams.

  - Identifying opportunities for non-federal risk reduction investments.
  - Developing floodplain management strategies to mitigate risk associated with eligible high hazard potential dams.
  - Building community resilience to dam-related flooding from eligible high hazard potential dams.
- Link proposed actions to reducing long-term vulnerabilities consistent with the goals. For example, consider how projects submitted for HHPD funding will be consistent with the goals and objectives identified in the current, FEMA-approved hazard mitigation plan.

5.8.2.4 HHPD 4 / Does the plan prioritize mitigation actions to reduce vulnerabilities from eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.4(c)(3)(iii) and (iv)

To meet State Mitigation Plan Review Guide Element S9 (mitigation actions), does the plan prioritize mitigation actions to reduce vulnerabilities identified in the risk assessment?

- The plan must identify actions based on the current risk assessment to reduce vulnerability of state-owned or operated buildings, infrastructure and critical facilities.
- The plan must describe the process used by the state to evaluate and prioritize actions that are cost effective, environmentally sound, and technically feasible.
- The plan must describe how each action contributes to the hazard mitigation goals.
- The plan must describe how the local and tribal, as applicable, mitigation strategies are linked with the state mitigation strategy.

To meet this requirement with a specific focus on eligible high hazard potential dams, the plan must:

- Include actions to reduce vulnerabilities to/from eligible high hazard potential dams, such as:
  - Proposing, enacting and/or delegating authority for local land use regulations, ordinances, and/or construction standards to protect life and property from eligible high hazard potential dams.
  - Working with of eligible dam owners to create/update and share EAPs or dam incident annex to emergency operations plans (EOPs).
  - Delegating authority to local governments to adopt and enforce land use ordinances in inundation zones.
  - Acquiring and/or elevating structures both upstream and downstream of eligible high hazard potential dams.
  - Rehabilitating and/or removing eligible high hazard potential dams.
- Describe the process to evaluate and prioritize actions related to eligible high hazard potential dams that are cost effective, environmentally sound, and technically feasible.
- Describe how each action to reduce risks from related to eligible high hazard potential dams contributes to the goals as well as how strategies are linked to the state mitigation strategy.

5.8.2.5 HHPD 5 / Does the plan identify current and potential sources of funding to implement mitigation actions and activities for eligible high hazard potential dams

REQUIREMENT

44 CFR §201.4(c)(3)(iv)

To meet *State Mitigation Plan Review Guide* Element S10 (funding sources), does the plan identify current and potential sources of funding to implement mitigation actions and activities?

- Each mitigation action or project must include the identification of current and/or potential sources of Federal, state, local, tribal, as applicable, or private funding for implementation.
- At a minimum, the plan must identify FEMA mitigation funding sources, including if applicable, but not limited to HMGP [Hazard Mitigation Grant Program], PDM [Pre-Disaster Mitigation], FMA [Flood Mitigation Assistance], and PA [Public Assistance Categories] C-G.

To meet the requirement, the mitigation plan must include various funding sources to mitigate vulnerabilities to/from eligible high hazard potential dams from hazards and the potential consequences associated with dam incidents as well as sources of funding to rehabilitate / remove eligible high hazard potential dams. Funding may include sources other than FEMA for activities other than rehabilitation of the eligible high hazard potential dams.

5.8.2.6 HHPD 6 / Does the plan generally describe and analyze the effectiveness of local mitigation policies, programs, and capabilities that address eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.4(c)(3)(ii)

To meet State Mitigation Plan Review Guide Element S13 (local capabilities), does the plan generally describe and analyze the effectiveness of local and tribal, as applicable, mitigation policies, programs, and capabilities?

- The plan must provide a general summary of current local and tribal, as applicable, policies, programs, and capabilities of jurisdictions to accomplish hazard mitigation.
- The plan must describe the effectiveness of local and tribal, as applicable, mitigation policies, programs, and capabilities, including:
  - Challenges to implementing local and tribal, as applicable, mitigation policies, programs, and capabilities.
  - Opportunities for implementing mitigation actions through local and tribal, as applicable, capabilities.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must:

- Provide a summary of the local policies, programs, and capabilities to implement mitigation actions and reduce vulnerabilities from eligible high hazard potential dams from hazards and the potential consequences associated with dam incidents.
- Describe challenges to implementing local mitigation policies, programs, and capabilities to reduce vulnerabilities to and from eligible high hazard potential dams and the approach to overcome these challenges.
- Describe opportunities for implementing mitigation actions to reduce risks to and from eligible high hazard potential dams through local capabilities. Examples include tools for regulating land use around dams.

5.8.2.7 HHPD 7 / Does the plan describe the criteria for prioritizing funding for eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.4(c)(4)(iii)

To meet State Mitigation Plan Review Guide Element S15 (prioritizing funding), does the plan describe the criteria for prioritizing funding? The plan must describe criteria for prioritizing jurisdictions to receive planning and project grants under available Federal and non-Federal programs. A principle criterion for prioritizing grants shall be the extent to which benefits are maximized.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must:

- Describe the method for funding actions to reduce vulnerabilities to and from eligible high hazard potential dams, if these actions were prioritized differently than mitigation actions for other hazards. For example, include a summary of the methodology used by the state dam safety program to assess projects based on failure modes, potential consequences resulting from a dam incident, and the expected risk-reduction and other benefits of the project. The state may also assess the loss of the resource and/or benefits of the dam.
- Document limitations and describe the approach to addressing deficiencies.

Note: Recipients of HHPD grant funds are required to use a risk-based prioritization method to rank eligible high hazard potential dams and decide which activities to fund, which may meet this requirement. However, use of that method is not necessary to fulfill this requirement for the hazard mitigation plan. Hazard mitigation plans are updated every 5 years and it is expected that eligible high hazard potential dams may change year-to year, so use of the risk-based prioritization method for the purpose of the hazard mitigation plan is not necessary. For

information about HHPD requirements for the risk-based prioritization method, see Section 5.7, *Risk-Based Prioritization Method Requirements*.

5.8.3 Local Mitigation Plan Requirements for Subrecipients

Applicants are responsible making sure subrecipients meet these requirements. To be eligible, a local government as subrecipient must have in place (at the time of obligation of grant funds) a FEMA-approved local hazard mitigation plan that includes all dam risks and complies with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended by the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552). Nonprofit organizations seeking funding must ensure that the dam is located in a local jurisdiction with a FEMA-approved hazard mitigation plan that includes all dam risks and complies with the Stafford Act, as amended by the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552).

Plan Coordination

The HHPD grant program also requires a floodplain management plan. Coordination of the floodplain management and hazard mitigation planning efforts is recommended.

The requirements, as written in the Notice of Funding Opportunity (NOFO), are aligned with specific sections of the Local Mitigation Plan Review Guide. The local hazard mitigation plan will be assessed against 44 CFR Part 201, Mitigation Planning, to determine if the plan complies with the requirement. Specifically, FEMA will validate whether each of the following elements are included in the local hazard mitigation plan:

1. Does the plan describe the incorporation of existing plans, studies, reports, and technical information for eligible high hazard potential dams?
2. Does the plan address eligible high hazard potential dams in the risk assessment?
3. Does the plan include mitigation goals to reduce long-term vulnerabilities from eligible high hazard potential dams?
4. Does the plan prioritize mitigation actions to reduce vulnerabilities from eligible high hazard potential dams?

Table 5-4 presents a crosswalk of the Local Mitigation Plan Review Guide planning elements and the HHPD Grant Program NOFO requirements:

Table 5-4: Crosswalk of Local Mitigation Plan Review Guide Element Planning Steps and HHPD Grant Program NOFO Requirements

NOFO Requirement	Local Guide Planning Element
HHPD a. (1)	Element A2: Planning process
HHPD b. (2)	Element B3: Risk assessment
HHPD c. (3)	Element C3: Mitigation goals

NOFO Requirement	Local Guide Planning Element
HHPD d. (4)	Element C4 and C5: Comprehensive range of mitigation actions and action prioritization

5.8.3.1 HHPD 1 / Does the plan describe the incorporation of existing plans, studies, reports, and technical information for eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.6(b)(2)

To meet Local Mitigation Plan Review Guide Element A2 (planning process), does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? The plan must identify all stakeholders involved or given an opportunity to be involved in the planning process. At a minimum, stakeholders must include:

1) Local and regional agencies involved in hazard mitigation activities;
2) Agencies that have the authority to regulate development; and
3) Neighboring communities.

Dams may be privately owned/operated, and dam inundation zones may impact multiple jurisdictions or cross state lines. The planning process may involve many stakeholders including dam owners, and federal, state, local, and tribal governments emergency management professionals, regulators, planners, and others. The planning area may include eligible high hazard potential dams outside of the jurisdictions' political boundaries, as in the example of a city that owns a reservoir in a nearby county.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must include descriptions of:

- How the state dam safety agency coordinated with the jurisdiction and/or local dam owners.
- Information shared by the state and/or local dam owners, such as:
  - Location and size of PAR as well as potential impacts to institutions and critical infrastructure/facilities/lifelines.
  - Inundation maps, EAPs, floodplain management plans, and/or data or summaries provided by dam breach modeling software such as HEC-RAS, DSS-WISE HCOM, DSS-WISE Lite, FLO-2D, as well as more detailed studies.

5.8.3.2 HHPD 2 / Does the plan address all dam risk from eligible high hazard potential dams in the risk assessment?

REQUIREMENT

44 CFR §201.6(c)(2)(ii)

To meet Local Mitigation Plan Review Guide Element B3 (risk assessment), is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction?

- For each participating jurisdiction, the plan must describe the potential impacts of each of the identified hazards on the community.
- The plan must provide an overall summary of each jurisdiction's vulnerability to the identified hazards. The overall summary of vulnerability identifies structures, systems, populations or other community assets as defined by the community that are susceptible to damage and loss from hazard events.

For each eligible high hazard potential dam that is included in the hazard mitigation plan, the local community mitigation planning lead is encouraged to coordinate with the dam owner as well as the state dam safety office to determine which issues/risks the dam is facing so the information can be included in the local hazard mitigation plan. A FEMA mitigation planning risk assessment must follow the requirements set forth at 44 CFR Part 201 and does not involve the level of detailed technical engineering analysis required by USACE, USBR, etc. For the mitigation plan, *all dam risk* can be presented as a summary description. Detailed analyses are not required.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must:

- Describe the risks and vulnerabilities to and from eligible high hazard potential dams, including:
  - Potential cascading impacts of storms, seismic events, landslides, wildfires, etc. on dams that might affect up and downstream flooding potential in terms of breach, non-breach, and residual risks.
  - Potential significant economic, environmental, or social impacts as well as multi-jurisdictional impacts from a dam incident.
  - Location and size of populations at risk from eligible high hazard potential dams as well as potential impacts to institutions and critical infrastructure/facilities/lifelines.
  - Methodology and/or assumptions for risk data and inundation modeling should be noted.
- Document limitations and describe the approach to address deficiencies.

5.8.3.3 HHPD 3 / Does the plan include mitigation goals to reduce long-term vulnerabilities from high hazard potential dams that pose an unacceptable risk to the public?

REQUIREMENT

44 CFR §201.6(c)(3)(i)

To meet Local Mitigation Plan Review Guide Element C3 (mitigation goals), does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards?

- The plan must include general hazard mitigation goals that represent what the jurisdiction(s) seeks to accomplish through the mitigation plan implementation.
- ***Goals*** are broad policy statements that explain what is to be achieved.
- The goals must be consistent with the hazards identified in the plan.

Hazard mitigation goals are broad, long-term policy and vision statements. Goals do not need to mention specific actions, dams, or use the term "high hazard potential dam." Projects submitted for consideration for HHPD funding must be consistent with the goals and objectives identified in the current, FEMA-approved hazard mitigation plan.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must:

- Address a reduction in vulnerabilities to and from eligible high hazard potential dams as part of their own goals or with other long-term strategies.
- Link proposed actions to reducing long-term vulnerabilities consistent with the goals.

5.8.3.4 HHPD 4 / Does the plan prioritize mitigation actions to reduce vulnerabilities eligible high hazard potential dams?

REQUIREMENT

44 CFR §201.6(c)(3)(ii) and (iv)

To meet Local Mitigation Plan Review Guide Element C4 (comprehensive range of mitigation actions), does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure?

- The plan must include a mitigation strategy that 1) analyzes actions and/or projects that the jurisdiction considered to reduce the impacts of hazards identified in the risk assessment, and 2) identifies the actions and/or projects that the jurisdiction intends to implement.
- Each jurisdiction participating in the plan must have mitigation actions specific to that jurisdiction that are based on the community's risk and vulnerabilities, as well as community priorities.

REQUIREMENT

44 CFR §201.6(c)(3)(iii) and (iv)

To meet Local Mitigation Plan Review Guide, to Element C5 (action prioritization), does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction?

- The plan must describe the criteria used for prioritizing the implementation of the actions.
- The plan must demonstrate when prioritizing hazard mitigation actions that the local jurisdiction considered the benefits that would result from the hazard mitigation actions versus the cost of those actions. The requirement is met as long as the economic considerations are summarized in the plan as part of the communities' analysis. A complete benefit cost analysis is not required. Quantitative benefits (for example, quality of life, natural and beneficial values, or other "benefits") can also be included in how actions will be prioritized.
- The plan must identify the position, office, department, or agency responsible for implementing and administering the action (for each jurisdiction), and identify potential funding sources and expected timeframes for completion.

To meet this requirement with a specific focus on eligible high hazard potential dams, the mitigation plan must:

- Describe a range of specific actions, such as:
  - Rehabilitating and/or removing dams.
  - Adopting and enforcing land use ordinances in inundation zones.
  - Acquiring and/or elevating structures, and/or acquiring easements in inundation zones.
  - Flood protection, such as berms, floodwalls, or floodproofing, in inundation zones.
- Describe the criteria used for prioritizing actions related to eligible high hazard potential dams.
- Identify the position, office, department, or agency responsible for implementing and administering the action related to mitigating hazards to or from eligible high hazard potential dams.

5.9 MITIGATION PLAN EXTRAORDINARY CIRCUMSTANCES

FEMA may grant an extension to the FEMA-approved state and/or local mitigation plan requirement in extraordinary circumstances when justification is provided. If this extension is granted, a mitigation plan that includes all dam risks must be approved by FEMA Regional Mitigation Planning within twelve (12) months of the award for recipients and within twelve (12) months of the date FEMA approves the applicants workplan for subrecipients.

Extraordinary circumstances exist when a determination is made by FEMA Regional Mitigation Planning, with concurrence from FEMA Headquarters Mitigation Planning, that the state and/or local jurisdiction has a current FEMA-approved mitigation plan that does not address all dam risks and also meets at least one (1) of the criteria below:

- The jurisdiction meets the definition of small impoverished community). Applicants must certify and provide documentation of the community or jurisdictional status to FEMA with the Mitigation Plan Extraordinary Circumstances Request through ND Grants.
- The jurisdiction has been determined to have had insufficient capacity due to a lack of available funding, staffing, or other necessary expertise to satisfy the mitigation planning requirement prior to the application deadline.
- The jurisdiction has a FEMA-approved mitigation plan, but it does not include all dam risk, for reasons beyond the control of the jurisdiction.

The applicant must provide written justification that identifies the circumstance for not meeting the mitigation plan requirement and explains what resources the recipient and/or subrecipient will use to create or amend a mitigation plan that includes all dam risks and is approved by FEMA within twelve (12) months. The recipient and/or subrecipient will acknowledge in writing that a plan will be approved by FEMA within twelve (12) months of the award or subaward. The recipient and/or subrecipient must provide a work plan for creating or updating the mitigation plan in the required time. The requirement shall be incorporated by FEMA Headquarters GPD into the award agreement for Recipients and into any subsequent subawards by the Recipient with subrecipients.

Templates for States, local governments and non-profit organizations to request an extension to the mitigation plan requirement using the extraordinary circumstances provision are available in *Appendix C, Mitigation Planning Templates and Tools*.

5.10 REQUIREMENTS FOR ACTIVITIES RELATING TO THE PUBLIC

REQUIREMENT

33 USC § 467f–2 (d)(2)(D)(ii) carries out activities relating to the public in the area around the dam in accordance with the hazard mitigation plan described in subparagraph (B)

As a condition of funding, recipients and subrecipients should ensure that activities relating to the public in the area around the dam are carried out in accordance with the state and/or local hazard mitigation plan. For the purposes of this grant program, carrying out the activities listed below could meet the requirement if they are included in the hazard mitigation plan. This list is not exhaustive; other activities may also qualify.

- Completing dam risk and vulnerability assessments, including supporting studies, such as economic analyses.
- Integrating information from mitigation plans, specifically dam risk assessment or mitigation strategies, with other planning efforts, such as:
- Disaster recovery strategy (pre- or post-), preparedness, or response plans (early warning plans, evacuation plans, plans for flood fighting, emergency operations plans, etc.).
- Comprehensive (e.g., land use, master) plans.
- Capital improvement or economic development plans.
- Resource management/conservation plans (e.g., stormwater, open space).
- Other long-term community planning initiatives (e.g., transportation or housing).
- Building capability through delivery of technical assistance and training related to dam safety.
- Promoting dam safety and awareness of flood risk through education or training.
- Installing public warning systems and developing alert strategies for dam incidents.
- Implementation of programs designed to reduce hazard creep through education, zoning, or other activities at the state level.
- Adoption and/or implementation of floodplain management ordinances that reduce dam risk and/or increase resilience in the areas affected by the dam.

SECTION SIX APPLICATION REVIEW INFORMATION

FEMA Headquarters will review all applications for eligibility and completeness. Applicants that do not meet eligibility or application submission requirements will be removed from consideration.

FEMA awards HHPD funds based on whether the submitted application is eligible and whether the proposed activities are eligible. Applicants choose which eligible activities to fund using the risk-based prioritization method (see Section 5.7, *Risk-Based Prioritization Method Requirements*).

As a part of the application review process, FEMA will review the Program Work Plan and Grant Management Plan and if necessary, discuss recommended modifications for approval. This Guidance is applicable by reference in FEMA Policy 104-008-7.

6.1 REVIEW AND SELECTION PROCESS FOR APPLICANTS

Applications will be reviewed and recommended for funding by FEMA Headquarters. Once the application is submitted into Grants.gov, FEMA Headquarters will review the application and work plan for completeness and eligibility. FEMA Headquarters will make sure there are clearly defined goals and objectives in the applicants' Program Work Plan and necessary critical data. Applicants will be evaluated and selected for funding based on the following:

- The applicant has the authority and demonstrates the expertise necessary to fulfill the requirements of the HHPD.
- The applicant's Grant Management Plan meets minimum requirements (see Section 5.4, *Grant Management Plan*). The applicant demonstrates how HHPD funds will advance the HHPD priorities and performance goals. The Grant Management Plan must clearly describe the SAA's timelines and milestones for implementing the HHPD grant. The Grant Management Plan must also describe methodology and data used to measure progress toward achieving the performance outcomes of the HHPD grant.
- The Program Work Plan and scoping narrative are compatible with the goals of the HHPD and describes the process for selecting subrecipients (see Section 5.1, *Program Work Plan*). FEMA will review submitted Program Work Plans for approval or discuss recommended modification of the planned tasks.
- The dams included on the applicant's list of eligible dams meet eligibility criteria. The SAA must submit official assurance statement (signed by the State Dam Safety Officer or GAR) that the dams in the list of eligible high hazard potential dams are regulated by the state dam safety program and meet the following HHPD criteria for eligible high hazard potential dams. See Section 2.2.1, *Eligibility Requirements*, and *Section 5.2, Eligible High Hazard Potential Dams.*

  - FEMA will review the Condition Assessment data reported in the NID to validate a dam's eligibility. Dams that meet the NID criteria for POOR, UNSATISATISFACTORY condition assessment may be eligible to include on the list of dams if a regulatory notice has also been issued. Dams with SATISFACTORY or NOT RATED condition assessments are not eligible for the HHPD program. Dams classified as FAIR in the NID will be evaluated on a case-by-case basis.
  - Upon request, the SAA must provide to FEMA substantiating documentation verifying dams submitted are eligible under the HHPD grant. The requested documentation may include, but not limited to, copies of the regulatory notices, risk assessments, engineering analyses, etc.)
- The applicant's risk-based prioritization method meets minimum FEMA requirements (see Section 5.7, *Risk-Based Prioritization Method Requirements*).
- The applicant's state hazard mitigation plan meets HHPD requirements. See the HHPD NOFO and Section 5.8.2, *State Hazard Mitigation Plan Requirements for Applicants,* for more information.

6.2 FINANCIAL REVIEW

The budget narrative and budget worksheets are critical elements of the cost estimate. These documents help the recipient justify the need for each line item in the cost estimate. They explain how the costs relate to the programmatic goals for the project and support the budget by showing the basis of computation. The budget narrative and basis of computation must be related to, and include all costs necessary to complete, each of the proposed activities in the work plan. FEMA uses the budget narrative/justification and basis of computation submitted by the applicant to review the funding amounts listed in the project narrative/SOW, the SF-424, and confirm that award costs are allowable, allocable, reasonable, and necessary.

Funds will not be made available for obligation, expenditure, or drawdown until the applicant's budget (to include Indirect Cost Agreement, if applicable) and budget narrative have been approved by FEMA and the grant award accepted by the recipient.

6.3 SUPPLEMENTAL FINANCIAL INTEGRITY REVIEW

If the anticipated federal share of a federal award will be greater than the simplified acquisition threshold, currently $250,000 (see Section 805 of the National Defense Authorization Act for Fiscal year 2008, Pub. L. No. 115-91, Office of Management and Budget (OMB) Memorandum M-18-18 at https://www.whitehouse.gov/wp-content/uploads/2018/06/M-18-18.pdf):

- Prior to making a federal award with a total amount of federal share greater than the simplified acquisition threshold, DHS is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through System for Award Management (SAM) [currently Federal Awardee Performance and Integrity Information System (FAPIIS)].

- An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM.
- DHS will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under federal awards when completing the review of risk posed by applicants as described in 2 C.F.R. § 200.205 federal awarding agency review of risk posed by applicants.

6.4 CONFLICTS OF INTEREST IN THE ADMINISTRATION OF FEDERAL AWARDS OR SUBAWARDS

For conflicts of interest under grant-funded procurements and contracts, refer to 2 C.F.R. §§ 200.317 – 200.326. To eliminate and reduce the impact of conflicts of interest in the subaward process, recipients and pass-through entities must follow their own policies and procedures regarding the elimination or reduction of conflicts of interest when making subawards. Recipients and pass-through entities are required to follow any applicable state, local, or tribal statutes or regulations governing conflicts of interest in the making of subawards.

The recipient or subrecipient must disclose to FEMA, in writing, any real or potential conflict of interest as defined by the federal, state, local, or tribal statutes or regulations or their own existing policies that may arise during the administration of the federal award. Recipients and pass-through entities must disclose any real or potential conflicts to their Program Analyst within five days of learning of the conflict of interest. Similarly, subrecipients must disclose any real or potential conflict of interest to the pass-through entity as required by the recipient's conflict of interest policies, or any applicable state or local statutes or regulations.

Conflicts of interest may arise during the process of FEMA making a Federal award in situations where an employee, officer, or agent, any members of his or her immediate family, his or her partner has a close personal relationship, a business relationship, or a professional relationship, with an applicant, sub applicant, recipient, subrecipient, or FEMA employee.

SECTION SEVEN AWARD, IMPLEMENTATION, AND CLOSEOUT

This section describes the selection and notification, grant implementation, non-compliance, reporting requirements, and closeout procedures. This Guidance is applicable by reference in FEMA Policy 104-008-7.

7.1 SELECTION AND NOTIFICATION

During the review and selection process, FEMA will notify applicants as to whether dams submitted in the list of dams have been identified for further review, or determined ineligible for funding. A determination of "identified for further review" is not notification or guarantee of an award.

Applicants will be notified of activities required, such as an EHP review; verification of hazard mitigation plan status; and of the date by which all required activities must be completed.

Comments may be provided by FEMA on subrecipients determined ineligible so applicants can modify and improve their applications for resubmission in future grant cycles.

7.2 GRANT IMPLEMENTATION (2 CFR 200 UNIFORM ADMINISTRATIVE REQUIREMENTS)

All pass-through entities must:

- Submit Grant Management Plan in accordance with Section 5.4, Grant Management Plan.
- Collect and review financial and programmatic reports.
- Ensure every subaward is clearly identified to the subrecipient as a subaward and includes information required in 2 CFR Section 200.331.
- Evaluate each subrecipient's risk of noncompliance with federal statutes, regulations, and the terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring described 2 CFR Section 200.331.
- Consider imposing additional specific subaward conditions on a subrecipient, if appropriate, and notify subrecipient, as described in 2 CFR Section 200.207.
- Monitor the activities of the subrecipient as necessary to ensure the subaward is used for authorized purposes; the activities are in compliance with federal statutes, regulations, and the terms and conditions of the subaward; and subaward performance goals are achieved. Pass-through entity monitoring of the subrecipient must include the requirement found in 2 CFR Section 200.331. Monitoring must include:
    - Reviewing financial and programmatic reports.
    - Following-up and ensuring that the subrecipient takes prompt and appropriate action for any deficiencies discovered through audits, on-site reviews, and other monitoring activity.
    - Issuing a management decision for audit findings as required by 2 CFR Section 200.521.

- Verify every subrecipient is audited as required by 2 CFR Subpart F when it is expected the subrecipient's federal awards expended during the respective fiscal year equaled or exceeded the threshold set forth in 2 CFR Section 200.501.
- Consider whether the results of the subrecipient's audits, on-site reviews, or other monitoring indicate conditions that necessitate adjustments to the pass-through entity's own records.
- Consider taking enforcement action against noncompliant subrecipients as described in 2 CFR Section 200.338.

7.3 BUDGET CHANGES

Pass-through entities are permitted to rebudget within the approved direct cost budget to meet unanticipated requirements and may make limited program changes to the approved budget. For more information on direct cost categories, see 2 CFR Section 200.308 and 2 CFR Subpart E. When budget changes are made, all programmatic requirements continue to apply. Additional information regarding budget adjustments and revisions can be found in 2 CFR Section 200.308.

Sections 7.3.1 through 7.3.4 provide examples of post-award changes to budgets that require the prior written approval of FEMA.

7.3.1 Non-Construction Projects

- Non-construction subaward adjustments of more than 10 percent in any direct cost categories where the awarding agency's share exceeds $100,000.
- Any changes that would result in additional funding to the grant.

7.3.2 Construction Projects

- All construction cost adjustments leading to the need for additional funds.
- Any changes to access contingency funds and rebudget to another direct cost category.

7.3.3 Cost Overrun or Underrun

A cost overrun or underrun to a subaward can result from a scope, schedule, or budget change. The pass-through entity must notify FEMA as soon as an overrun or underrun is identified. Prior to re-directing underrun funds to overrun requests within the same award, the pass-through entity must request approval from FEMA. The pass-through entity may request additional federal funds for identified overruns, which FEMA may approve if program funds are available. The subaward must continue to meet cost share and eligibility requirements.

7.3.4 Contingency

A contingency cost is an allowance in the total cost estimate to cover situations that cannot be fully defined at the time the cost estimate is prepared and will likely result in additional eligible costs. Allowances for major project scope changes, unforeseen risks, or extraordinary events may not be included as contingency costs.

For project applications, cost estimates may include contingencies; however, the recommended total contingency range is 1 to 5 percent. Contingency costs may be raised to 7 percent for historic properties as defined under the NHPA. A contingency cost should be included as a line item in the budget section of a project application.

Contingency funds are not automatically available for use. Prior to their release, contingency funds must be rebudgeted to another direct cost category. Post-award changes to the budget require prior written approval from FEMA. The written request should demonstrate what unforeseen condition related to the project arose that required the use of contingency funds.

7.4 NON-COMPLIANCE

If a pass-through entity fails to comply with federal statutes, regulations, or terms or conditions of a federal award, whether stated in an assurance, a Grant Management Plan or application, a notice of award, this guidance, or elsewhere, FEMA may take one or more of the following actions, as appropriate:

- Temporarily withhold cash payments pending correction of the deficiency.
- Disallow (denying both use of funds and matching credit for) all or part of the cost of the activity or action not in compliance.
- Wholly or partly suspend or terminate the federal award.
- Initiate suspension or debarment proceedings.
- Withhold further awards for FEMA grant program(s).
- Take other remedies that may be legally available.

Additional details can be found in 2 CFR Section 200.338.

7.4.1 Termination

The federal award may be terminated in whole or in part by FEMA or the pass-through entity if the non-federal entity fails to comply with the terms and conditions of the award, for cause, with consent of the non-federal entity when all parties agree with the termination conditions, or by the non-federal entity upon sending to FEMA or the pass-through entity written notification of the termination including the reason for the termination.

7.4.2 Additional Specific Award Conditions or Terminations

FEMA will reconsider determinations of noncompliance, additional award conditions, or its decision to terminate a federal award. The pass-through entity must send information for reconsideration to FEMA Headquarters within the time specified in the notification from FEMA. A FEMA decision will uphold or overturn a decision regarding an award based on information provided by the pass-through entity and subrecipient, and application, award, and subaward management records collected by FEMA.

7.5 REPORTING REQUIREMENTS

Recipients and subrecipients must maintain records of work and expenditures. Recipients submit quarterly financial and performance reports to FEMA on January 30, April 30, July 30, and October 30. The first quarterly reports are due within 30 days of the end of the first federal quarter following the initial award. FEMA may waive the initial reports. The recipient must submit quarterly financial status and performance reports thereafter until the grant ends. Failure to submit financial and performance reports to FEMA in a timely manner may result in an inability to access grant funds until proper reports are received by FEMA.

Recipients must use the Standard Forms (SF) Federal Financial Report (FFR) (SF-425) and Performance Progress Report (SF-PPR). Quarterly financial reports must be submitted via Payment and Reporting System (PARS).

7.5.1 Federal Financial Reports

Recipients must submit a quarterly FFR. Obligations and expenditures must be reported on a quarterly basis using the FFR (SF-425), which is due to FEMA within 30 days of the end of each calendar quarter (e.g., for the quarter ending March 31, the FFR is due no later than April 30). A report must be submitted for every quarter of the POP, including partial calendar quarters, as well as for periods where no activity occurs. Future awards and fund drawdowns may be withheld if these reports are delinquent. The final FFR is due 90 days after the end date of the POP.

OMB directed the FFR (SF-425) replace the SF-269, SF-269A, SF-272, and SF-272A. The SF-425 consolidates the Federal Status Report and the Federal Cash Transaction Report into a single report. The SF-425 is intended to provide federal agencies and recipients with a standard format and consistent reporting requirements.

Reporting periods and due dates for Federal Financial Reports are as follows:

- Period from October 1 – December 31 Due January 30
- Period from January 1 – March 31 Due April 30
- Period from April 1 – June 30 Due July 30
- Period from July 1 – September 30 Due October 30

7.5.2 Performance Progress Reports

Grant recipients are responsible for providing performance reports on a semi-annual basis. Performance progress reports should be submitted as either a Microsoft Word document or as a PDF file. Performance progress reports are due within 30 days after the end of each reporting period, and must be submitted via ND Grants, and must include at a minimum the following:

The recipient must submit a quarterly performance progress report (SF-PPR) for each award. Performance reports should include:

1. Reporting period, date of report, and recipient point of contact name and contact information.
2. SF-PPR must be used and submitted via ND Grants

3. Project identification information, including FEMA project number, subrecipient, and project type using standard ND Grants/NEMIS project type codes.
4. Significant activities and developments that have occurred or have shown progress during the quarter, including a comparison of actual accomplishments to the work schedule objectives established in the subaward.
5. Percent completion and whether completion of work is on schedule; a discussion of any problems, delays, or adverse conditions that will impair the ability to meet the timelines stated in the subaward; and anticipated completion date.
6. Status of costs, including whether the costs are (1) unchanged, (2) overrun, or (3) underrun. If there is a change in cost status, the report should include a narrative describing the change. Also, include amount dispersed to subrecipient by activity.
7. A statement of whether a request to extend the award POP is anticipated.
8. Incremental funding amounts (SFM) and progress completed.
9. Additional information as required by FEMA to assess the progress of an award.

FEMA may suspend drawdowns from SMARTLINK or PARS if quarterly performance progress reports are not submitted on time. The following reporting periods and due dates apply:

Reporting Period	Report Due Date
January 1 – March 31	April 30 (including First Report)
April 1 – June 30	July 30
July 1 – September 30	October 30 (including Final Report)
October 1 – December 31	January 30

7.5.3 Final Reports

The pass-through entity must submit final reports when it determines that all administrative actions and required work have been completed. This final report may be submitted prior to the end of the POP. The pass-through entity must submit a final SF-425 and Performance Report no later than 90 days after the end date of the POP, per 2 CFR Section 200.343.

7.6 CLOSEOUT

This section discusses subaward and award closeout, including records retention.

7.6.1 Subaward Closeout

The recipient will submit a letter signed by the GAR certifying:

- The reported costs were incurred in the performance of eligible work.
- The approved work was completed and the mitigation measure is in compliance with the provisions of the FEMA-state agreement.

Additionally, the subaward closeout request must include the following:

- Verification any program income has been deducted from total project costs as specified in 2 CFR Section 200.307.
- Final site inspection report including photographs of the completed project.
- Final project costs, including federal share, non-federal share, administrative allowance (if applicable), and cost underrun and overruns.
- Geospatial coordinates, in the form of latitude and longitude with an accuracy of +/- 20 meters (64 feet), have been provided for the project. For flood reduction, hazardous fuels reduction, and soil stabilization projects, an accurate recording of the official acreage, using open file formats geospatial files (i.e., shapefiles), must be submitted.
- Certification and documentation to support the project was completed in compliance with environmental conditions, required permits, and applicable building codes.
- Certification the project meets NFIP insurance requirements (if applicable).
- Any other supporting documents required by FEMA to close the project.

FEMA will review all closeout documentation for compliance and may send the recipient a request for additional supporting documentation, if needed.

Recipients should closeout subawards as activities are completed. In addition, as cost underruns are identified, the recipient should submit de-obligation requests to FEMA.

Subrecipient Records Retention

Financial records, supporting documents, statistical records, and all other subrecipient records pertinent to a federal award must be retained for a period of three years from the date of submission of the final expenditure report in accordance with 2 CFR Sections 200.333 through 200.337. There are some exceptions where the retention period may be longer than three years as noted in 2 CFR Sections 200.333 through 200.337 and as required by the recipient. The following examples are the most common instances:

- When the non-federal entity is notified in writing by FEMA, the cognizant agency for audit, oversight agency for audit, cognizant agency for indirect costs, or pass-through entity to extend the retention period, non-federal entities must keep records for as long as indicated in the notification, which may be longer than three years.
- Records for real property and equipment acquired with federal funds must generally be retained for three years after disposition. Records for project types where property may be acquired include flood risk reduction measures, and property acquisition, and structural demolition/structure relocation.

Note: The three (3) year retention period is not applicable to the O&M Agreement and Financial Plans. The O&M Agreement and Financial Plans are considered a living documents and should be maintained throughout the expected life of the dam.

7.6.2 Award Closeout

The recipient has up to 90 days following the expiration of the award POP to submit all financial, performance, and other reports required by FEMA. All administrative actions must also be completed during the award POP, except the actual submission of the required reports. The recipient must liquidate all obligations incurred under the award no later than 90 days after the POP expiration. The closeout process for the recipient involves the following steps:

- The recipient ensures all subawards have been closed out as identified in Part VI, F.1.
- The recipient reconciles/adjusts subaward costs, ensures that non-federal share costs are documented, and ensures that all costs submitted are eligible according to the FEMA-approved SOW.
- The recipient receives and processes cost adjustments or returns unobligated funds to FEMA via SMARTLINK or PARS. Final payment is made to the recipient.
- The recipient notifies FEMA that the award is ready for final closeout.
- The recipient submits a closeout letter, signed by the GAR, to FEMA with supporting documentation, including:
    - Statement that the SOW(s) has been completed as approved.
    - SF-425 (for PARS, the final SF-425 is also submitted via PARS).
    - SF-270, Request for Advance or Reimbursement, if applicable, or request for de-obligation of unused funds, if applicable.
    - SF-428, Report on Government Property, if applicable.
    - Statement that no inventions were made, or patents applied for, in the implementation of the award.

Recipient Records Retention

The recipient must maintain the complete federal award closeout records file for at least three years from the submission date of its final expenditure report in accordance with 2 CFR Sections 200.333 through 200.337.

FEMA recommends recipients remind subrecipients of the three-year records retention requirement and communicate the submission date of the final expenditure reports to FEMA. Note: The three (3) year retention period is not applicable to the O&M Agreement and Financial Plans. The O&M Agreement and Financial Plans are considered a living documents and should be maintained throughout the expected life of the dam.

FEMA retains the right to disallow costs and recover funds based on a later audit or other review after closeout. FEMA must make any cost disallowance determination and notify the pass-through entity within the record retention period.

State Access to NFIP. States accessing NFIP data via the electronic systems (Data Exchange) are advised of, and must acknowledge, the sensitive nature of the information and the need to prevent the release of the data to unauthorized users. When the data are released to a local government by either the state or the appropriate FEMA Regional Office, the local government must be notified in writing the records relating to individuals and properties are being made

available through the FEMA routine use policy for the specific purposes of mitigation planning, research, analysis, and feasibility studies consistent with the NFIP and for uses that further the floodplain management and hazard mitigation goals of the state and FEMA.

APPENDICES

APPENDIX A: ACRONYMS

CFR	Code of Federal Regulations
CRS	Community Rating System
DCF	Dam failure critical facilities planning (CRS activity)
DFO	Dam failure response operations (CRS activity)
DFR	Dam failure threat recognition system (CRS activity)
DFW	Dam failure warning (CRS activity)
DHS	Department of Homeland Security
DOB	Duplication of Benefits
DOP	Duplication of Programs
EAP	Emergency Action Plan
EHP	Environmental Planning and Historic Preservation
ESA	Endangered Species Act
FAPIIS	Federal Awardee Performance and Integrity Information System
FD	FEMA Directive
FEMA	Federal Emergency Management Agency
FFR	Federal Financial Report
FMA	Flood Mitigation Assistance Grant Program
GAR	Governor or Governor's Authorized Representative
GPS	Global Positioning System
H&H	Hydrologic and Hydraulic
HHPD	Rehabilitation of High Hazard Potential Dams
HMA	Hazard Mitigation Assistance
IA	Individual Assistance
IRS	Internal Revenue Service
ND Grants	Non-Disaster Grants Management System
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NID	National Inventory of Dams
NRCS	Natural Resources Conservation Service
O&M	Operation and Maintenance
OMB	Office of Management and Budget
PA	Public Assistance
PAR	Population at Risk
PARS	Payment and Reporting System
PNP	Private Nonprofit

POP	Period of Performance
PPD-8	Presidential Policy Directive 8
RFI	Request for Information
SAM	System for Award Management
SDS	State dam safety program (CFR activity)
SFM	Incremental funding amounts
SF-PPR	Standard Form Performance Progress Report
SAA	State Administrative Agency
SHMO	State Hazard Mitigation Officer
SOW	Scope of Work
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
USACE	U.S. Army Corps of Engineers
USBR	United States Bureau of Reclamation
USC	United States Code
USGS	U.S. Geological Survey
WINN	Water Infrastructure Improvements for the Nation Act

APPENDIX B: DEFINITIONS

All Dam Risk

For the purposes of the HHPD program, all dam risk includes the incremental risk, non-breach risk, and residual risk associated with each eligible high hazard potential dam, as well as the reason(s) the state has determined the dam is an eligible high hazard potential dam.

Applicant *(Source: Hazard Mitigation Assistance Guidance)*

The entity (i.e., the state under this grant program) applying to the Federal Emergency Management Agency (FEMA) for a federal award that will be accountable for the use of the funds. Once funds are awarded, the applicant becomes the recipient or pass-through entity or both.

Dam *(Source: 33 USC § 467(3))*

(A) any artificial barrier that has the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water, that—

(vii) is 25 feet or more in height from—

(III) the natural bed of the stream channel or watercourse measured at the downstream toe of the barrier; or

(IV) if the barrier is not across a stream channel or watercourse, from the lowest elevation of the outside limit of the barrier;

(viii) has an impounding capacity for maximum storage elevation of 50 acre-feet or more; but

(B) does not include—

(ix) a levee; or

(x) a barrier described in subparagraph (A) that—

(V) is 6 feet or less in height regardless of storage capacity; or

(VI) has a storage capacity at the maximum water storage elevation that is 15 acre-feet or less regardless of height

Dam Safety Deficiency *(Source: NID)*

A load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Deferred Maintenance *(Source: Adapted from FASAB Statement of Federal Financial Accounting Standards 42, Apr. 25, 2012)*

Routine activities performed to prevent deterioration of structures and equipment to keep a dam in a safe and functioning condition were not performed when they should have been or were scheduled to be and which are put off or delayed for a future period. Routine activities include preventive maintenance; replacement of parts, systems, or components; and other activities needed to preserve or maintain the dam. Maintenance and repairs, as distinguished from capital improvements, exclude activities directed towards expanding the capacity of a dam or otherwise upgrading it to serve needs different from, or significantly greater than, its current use.

Eligible High Hazard Potential Dam *(Source: 33 USC § 467(4)(A))*

(A) a non-federal dam that—

(i) is located in a state with a state dam safety program;

(ii) is classified as "high hazard potential" by the state dam safety agency in the state in which the dam is located;

(iii) has an emergency action plan approved by the relevant state dam safety agency; and

(iv) the state in which the dam is located determines—

(I) fails to meet minimum dam safety standards of the state; and

(II) poses an unacceptable risk to the public.

(B) Exclusion: The term "eligible high hazard potential dam" does not include—

(i) a licensed hydroelectric dam; or

(ii) a dam built under the authority of the Secretary of Agriculture.

Expected life of the dam

Estimated number of years the rehabilitation will be effective. Major infrastructure, like dams, typically have a 50 to 100 year projected service life.

FAIR *(Source: NID Condition Assessment definition)*

No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state or federal criteria.

Other Circumstances:

- Lack of maintenance requires attention to prevent developing safety concerns.
- Maintenance conditions may exist that require remedial action greater than routine work and/or secondary studies or investigations.
- Interim or permanent risk reduction measures may be under consideration.

Federal Agency *(Source: 33 USC § 467(5))*

The term "federal agency" means a federal agency that designs, finances, constructs, owns, operates, maintains, or regulates the construction, operation, or maintenance of a dam.

Hazard Reduction *(Source: 33 USC § 467(8))*

The term "hazard reduction" means the reduction in the potential consequences to life and property of dam failure.

Incremental Risk *(Source: Adapted from USACE ER 1110-2-1156)*

The risk (likelihood and consequences) to the pool area and downstream floodplain occupants that can be attributed to the presence of the dam should the dam breach prior or subsequent to overtopping, or undergo component malfunction or misoperation, where the consequences considered are over and above those that would occur without dam

breach. The consequences typically are due to downstream inundation, but loss of the pool can result in significant consequences in the pool area upstream of the dam.

Interim Risk Reduction Measures *(Source: USACE Levee Safety Program Risk Reduction)*
Effective, interim actions taken to reduce flood risk while longer term solutions are planned and implemented. Interim risk reduction measures are a critical part of responsible, adaptive flood risk management.

Non-Breach Risk *(Source: Adapted from USACE ER 1110-2-1156)*

The risk in the reservoir pool area and affected downstream floodplain due to 'normal' dam operation of the dam (e.g. large spillway flows within the design capacity that exceed channel capacity) or 'overtopping of the dam without breaching' scenarios.

Non-Federal Entity
A state, local government, or nonprofit organization that carries out a federal award as a recipient or subrecipient.

Non-Federal Sponsor: *(Source: 33 USC § 467(8))*
The term "non-federal sponsor," in the case of a project receiving assistance under section 467f–2 of this title, includes—

(A) a governmental organization; and

(B) a nonprofit organization.

Nonprofit
Eligible nonprofit organizations are those organizations that are described under section 501(c)(3) of the Internal Revenue Code of 1986 (IRC) and exempt from tax under section 501(a) of such code. Refer to links below for additional information:

- https://www.irs.gov/charities-non-profits/charitable-organizations/exemption-requirements-section-501-c-3-organizations
- https://www.irs.gov/publications/p557/ch03.html
- https://www.irs.gov/charities-non-profits

NOT RATED *(Source: NID Condition Assessment definition)*
The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but, for whatever reason, has not been rated.

Official Regulatory Notice
A specific Dam Safety Deficiency (meeting the NID definition) is recognized and cannot be resolved with routine maintenance. The state dam safety agency has issued an official regulatory notice to the dam owner that includes all of the following elements:

1. The dam owner is notified of the specific deficiency and a regulatory requirement to immediately implement risk-reduction measures. (Required risk-reduction measures may include activities such as hiring an engineer to conduct risk-based failure mode studies, design of risk-reduction measures, construction of risk-reduction measures, or other actions.)

2. The regulatory notice indicates whether temporary risk-reduction measures (such as reservoir restrictions) are required.
3. The regulatory notice indicates a specific time allowance for the completion of the risk-reduction measures.
4. The regulatory notice includes a statement of the state dam safety's authority to issue regulatory actions and/or specific regulatory enforcement actions for failure to comply.

Pass-through Entity *(Source: Hazard Mitigation Assistance Guidance)*
A non-federal entity that provides a subaward to a subrecipient to carry out part of a federal program.

Period of Performance (POP) *(Source: Hazard Mitigation Assistance Guidance)*
The time during which the non-federal entity may incur new obligations to carry out the work authorized under the federal award. The federal awarding agency or pass-through entity must include start and end dates of the POP in the federal award.

POOR *(Source: NID Condition Assessment definition)*
A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.
Other Circumstances:
- Dam has multiple deficiencies or a significant deficiency that requires remedial work.
- Lack of maintenance (erosion, sinkholes, settlement, cracking, unwanted vegetation, animal burrows, inoperable outlet gates) has affected the integrity or the operation of the dam under normal operational conditions and requires remedial action to resolve.
- Critical design information is needed to evaluate the potential performance of the dam. For example, a field observation or a review of the dam's performance history has identified a question that can only be answered by review of the design and construction history for the dam. Uncertainty arises when there is no design and/or construction documentation available for review and additional analysis is needed to better understand the risk associated with operation under normal operational conditions.
- Interim or permanent risk reduction measures may be under consideration.

Population at Risk (PAR) *(Source: USACE ER 1110-2-1156)*
The population downstream of a dam that would be subject to risk from flooding in the instance of a potential dam failure; usually documented in numbers of persons at risk.

Pre-award Costs *(Source: 2 CFR § 200.458)*
Pre-award costs are those incurred prior to the effective date of the federal award directly pursuant to the negotiation and in anticipation of the federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are

allowable only to the extent that they would have been allowable if incurred after the date of the federal award and only with the written approval of the federal awarding agency.

Project Area (or area impacted by the dam project)

The Project Area goes beyond the footprint of the dam and appurtenant structures to include areas protected by the project and areas impacted by the impoundment, release, overtopping, or failure of a dam.

Recipient *(Source: Hazard Mitigation Assistance Guidance)*

A non-federal entity that receives a federal award directly from a federal awarding agency to carry out an activity under a federal program. The term recipient does not include subrecipients.

Rehabilitation *(Source: 33 USC § 467(12))*

The repair, replacement, reconstruction, or removal of a dam that is carried out to meet applicable state dam safety and security standards.

Routine Operation and Maintenance

Activities performed to prevent deterioration of structures and equipment to keep a dam in a safe and functioning condition throughout the expected life of the dam. These activities can be a scheduled or recurring action outlined in the operation and maintenance plan or performed after an inspection reveals an unusual observation that requires corrective restoration. Identifying and correcting problems before they become serious is an important part of routine operation and maintenance. Typical routine operation and maintenance activities can include (but are not limited to) mowing, removal of woody vegetation, addressing erosion, repairing concrete structures, replacement of equipment and gates, and servicing gates.

Residual Risk *(Source: USACE ER 1110-2-1156)*

The risk that remains after all mitigation actions and risk reduction actions have been completed. With respect to dams, FEMA defines residual risk as “risk remaining at any time” (FEMA, 2015, p A-2). It is the risk that remains after decisions related to a specific dam safety issue are made and prudent actions have been taken to address the risk. It is the remote risk associated with a condition that was judged to not be a credible dam safety issue.

Risk

The product of the likelihood of a structure being loaded, adverse structural performance, (e.g., dam failure), and the magnitude of the resulting consequences

SATISFACTORY *(Source: NID Condition Assessment definition)*

No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines. Typical Circumstances:

- No existing deficiencies or potentially unsafe conditions are recognized, with the exception of minor operational and maintenance items that require attention.
- Safe performance is expected under all loading conditions including the design earthquake and design flood.
- Permanent risk reduction measures (reservoir restrictions, spillway modifications, operating procedures, etc) have been implemented to eliminate identified deficiencies.

Small Impoverished Community

A small impoverished community must:

- Be a community of 3,000 or fewer individuals identified by the applicant as a rural community that is not a remote area within the corporate boundaries of a larger city or jurisdictional area or boundary.
- Be economically disadvantaged, with residents having an average per capita annual income not exceeding 80 percent of the national per capita income, based on best available data. For the most current information on the national income, see http://www.bea.gov.
- Have a local unemployment rate that exceeds by 1 percentage point or more the most recently reported, average yearly national unemployment rate. For the most current unemployment information, see http://www.bls.gov/eag/eag.us.htm.
- Meet other criteria required by the applicant in which the community is located.

State *(Source: 33 USC § 467(13))*

The term "state" means each of the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States.

State Dam Safety Agency *(Source: 33 USC § 467(14))*

The term "state dam safety agency" means a state agency that has regulatory authority over the safety of non-federal dams.

State Dam Safety Program *(Source: 33 USC § 467(15))*

The term "state dam safety program" means a state dam safety program approved and assisted under section 467f(e) of this title

Subaward *(Source: Hazard Mitigation Assistance Guidance)*

An award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a federal award received by the pass-through entity. It does not include payments to a contractor or payments to an individual that is a beneficiary of a federal program. A subaward may be provided through any form of legal agreement, including an agreement that the pass-through entity considers a contract.

Subrecipient *(Source: Hazard Mitigation Assistance Guidance)*

A non-federal entity that receives a subaward from a pass-through entity to carry out part of a federal program; but does not include an individual that is a beneficiary of such program.

Unacceptable Risk to the Public

For purposes of this HHPD grant program, the determination of ***unacceptable risk to the public*** is to be made by the state dam safety program, the agency of the state that is authorized by state statute to manage the state participation in the National Dam Safety Program.

A dam poses ***unacceptable risk to the public*** when the dam requires remediation or risk reduction measures due to deficiencies caused by inadequate dam design, construction methods, or the results of inadequate operation and maintenance.

For a dam to be considered an ***unacceptable risk to the public*** for funding under the HHPD grant program, it must meet all the following conditions:

1. Does not meet the minimum dam safety standards of the state (not including routine operations and maintenance actions).
2. State dam safety program has documented the deficiencies at the dam that must be reduced, eliminated or mitigated.
3. Official Regulatory Notice (see definition) of the determination of the documented deficiency (s) has been communicated to the dam owner to address the ***unacceptable risk to the public*** to implement interim risk reduction measures until permanent risk reduction measures are implemented in a manner that is acceptable to the state. Official Regulatory Notice must be on official state or state dam safety program letterhead and may include official citations issued from the state dam safety program to the dam owner.

UNSATISFACTORY *(Source: NID Condition Assessment definition)*

A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.

Typical Circumstances:

- A critical component of the dam has deteriorated to unacceptable condition or failed.
- A safety inspection indicates major structural distress (excessive uncontrolled seepage, cracks, slides, sinkholes, severe deterioration, etc.), advanced deterioration, or operational deficiencies which could lead to failure of the dam or its appurtenant structures under normal operating conditions.
- Reservoir restrictions or other interim risk reduction measures are required.
- A partial or complete reservoir drawdown may be mandated by the state or federal regulatory agency.

APPENDIX C: MITIGATION PLAN EXTRAORDINARY CIRCUMSTANCES REQUEST TEMPLATES AND PLAN REVIEW TOOLS

Mitigation Plan Extraordinary Circumstances Request - Applicant Template (State Governments)

Mr. James E. Demby, Jr., PE
Senior Technical and Policy Advisor
National Dam Safety Program
Federal Emergency Management Agency
400 C Street, SW
Washington, DC 20472

Reference: Request to approve use of the "Mitigation Plan Extraordinary Circumstances" under the *Rehabilitation of High Hazard Potential Dams Grant Program*

Dear Mr. Demby:

The [*insert Applicant name]* in consultation and coordination with *[insert name of agency/ies responsible for updating the FEMA-approved state mitigation plan*] requests approval for the Mitigation Plan Extraordinary Circumstances extension as stated in the Rehabilitation of High Hazard Potential Dams (HHPD) Grant Program Notice of Funding Opportunity (NOFO).

We understand that if the extension to having a FEMA-approved mitigation plan than includes all dam risks is approved, the requirement will be incorporated into the HHPD award agreement and the recipient will need to update the state mitigation plan to include all dam risks as described in the NOFO and receive FEMA-approval within 12 months of the grant award.

[For local mitigation plan(s) that require updates, insert the following text]
With respect to the following local government and/or nonprofit organization subrecipients, I/we have included the documentation requested in the NOFO to the request the use of mitigation plan extraordinary circumstances for the following FEMA-approved local mitigation plans in order to meet the requirements to include all dam risks as described in the NOFO:

- *[Insert list]*

These subrecipients understand that the plan must be updated, including FEMA approval, within 12 months of the subgrant award or FEMA may terminate the award.

If you have any questions, please contact me at [*insert phone # and email address*].

Sincerely,

[Recipient / Applicant name], [title] and [Sponsoring Agency Departmental Name]

[Agency Responsible for Updating HM Plan], [title] [Agency Departmental Name]

cc: FEMA Regional National Dam Safety Program Point of Contact

Attachments:

- Workplan for updating State mitigation plan, including FEMA approval
- Documentation supporting the determination of Extraordinary Circumstances for each subrecipient
- *If needed, include assurance from the state agency responsible for updating the FEMA-approved state mitigation plan*
  If needed, include requests from subrecipient (local governments and nonprofit organizations) for the use of mitigation plan extraordinary circumstances

Mitigation Plan Extraordinary Circumstances Request - Subrecipient Template (Local Governments)

Mr. James E. Demby, Jr., PE
Senior Technical and Policy Advisor
National Dam Safety Program
Federal Emergency Management Agency
400 C Street, SW
Washington, DC 20472

Reference: Request to approve use of the "Mitigation Plan Extraordinary Circumstances" under the *Rehabilitation of High Hazard Potential Dams Grant Program*

Dear Mr. Demby:

The [*insert Subrecipient name]* in consultation and coordination with *[insert name of agency responsible for updating the FEMA-approved local mitigation plan*] requests approval for the Mitigation Plan Extraordinary Circumstances extension as stated in the Rehabilitation of High Hazard Potential Dams (HHPD) Grant Program Notice of Funding Opportunity (NOFO).

We understand that if the extension to having a FEMA-approved mitigation plan that includes all dam risks is approved, the requirement will be incorporated into the HHPD award agreement and the subrecipient will need to update the mitigation plan to include all dam risks as described in the NOFO and receive FEMA-approval within 12 months of the grant award or FEMA may terminate the award.

If you have any questions, please contact me at [*insert phone # and email address*].

Sincerely,

[Subrecipient name], [title] and	[Agency Responsible for Updating HM Plan], [title]
[Sponsoring Agency Departmental Name]	[Agency Departmental Name]

cc: FEMA Regional National Dam Safety Program Point of Contact

Attachments:

- Workplan for updating local mitigation plan *[insert name of the FEMA-approved local mitigation plan*], including FEMA approval
- *If letter is not from agency responsible for updating the FEMA-approved mitigation plan, include assurance*

Mitigation Plan Extraordinary Circumstances Request - Subrecipient Template (Nonprofit Organizations)

Mr. James E. Demby, Jr., PE
Senior Technical and Policy Advisor
National Dam Safety Program
Federal Emergency Management Agency
400 C Street, SW
Washington, DC 20472

Reference: Request to approve use of the "Mitigation Plan Extraordinary Circumstances" under the *Rehabilitation of High Hazard Potential Dams Grant Program*

Dear Mr. Demby:

The [*insert Subrecipient name]* in consultation and coordination with *[insert name of agency responsible for updating the FEMA-approved local mitigation plan*] requests approval for the Mitigation Plan Extraordinary Circumstances extension as stated in the Rehabilitation of High Hazard Potential Dams (HHPD) Grant Program Notice of Funding Opportunity (NOFO).

We understand that if the extension to having a FEMA-approved mitigation plan than includes all dam risks is approved, the requirement will be incorporated into the HHPD award agreement and the subrecipient will be responsible for coordinating with *[insert name of agency responsible for updating the FEMA-approved local mitigation plan*] to update the mitigation plan to include all dam risks as described in the NOFO and receive FEMA-approval within 12 months of the grant award or FEMA may terminate the award.

If you have any questions, please contact me at [*insert phone # and email address*].

Sincerely,

[Subrecipient name], [title] and	[Agency Responsible for Updating HM Plan], [title]
[Sponsoring Agency Departmental Name]	[Agency Departmental Name]

cc: FEMA Regional National Dam Safety Program Point of Contact

Attachments:

- Workplan for updating local mitigation plan *[insert name of the FEMA-approved local mitigation plan*], including FEMA approval
- *If letter is not from agency responsible for updating the FEMA-approved mitigation plan, include assurance*

Mitigation Plan Review Tool Updates for "All Dam Risks" and HHPD Eligibility

State Mitigation Plan Review Tool Updates

REGULATION CHECKLIST STANDARD PLAN *M Met; NM=Not Met	Location in Plan	M / NM*
STANDARD (S) STATE MITIGATION PLAN		
Optional: HHPD Risks		
Does the plan describe how the state dam safety agency, other agencies, and stakeholders participated in the planning process and contributed expertise, data, studies, information, etc. relative to eligible high hazard potential dams?		
Does the plan address all dam risk for eligible high hazard potential dams in the risk assessment?		
Does the plan include mitigation goals to reduce long-term vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?		
Does the plan prioritize mitigation actions to reduce vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?		
Does the plan identify current and potential sources of funding to implement mitigation actions and activities for eligible high hazard potential dams that pose an unacceptable risk to the public?		
Does the plan generally describe and analyze the effectiveness of local mitigation policies, programs, and capabilities that address eligible high hazard potential dams that pose an unacceptable risk to the public?		
Does the plan describe the criteria for prioritizing funding for eligible high hazard potential dams that pose an unacceptable risk to the public?		
Required Revisions:		

Local Mitigation Plan Review Tool Updates

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)	**Location in Plan (section and/or page number)**	**Met**	**Not Met**
OPTIONAL: HIGH HAZARD POTENTIAL DAM RISKS			
Does the plan describe the incorporation of existing plans, studies, reports, and technical information for eligible high hazard potential dams?			
Does the plan address eligible high hazard potential dams in the risk assessment?			
Does the plan include mitigation goals to reduce long-term vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?			
Does the plan prioritize mitigation actions to reduce vulnerabilities from eligible high hazard potential dams that pose an unacceptable risk to the public?			
REQUIRED REVISIONS			

APPENDIX D: MINIMUM ELIGIBILITY CHECKLIST

Table D-1: Minimum Eligiblity Criteria Checklist

Eligibility Component	Yes	No	Comment
Dam Eligibility			
The dam is located in a state[6] with a state dam safety program			
The dam is classified as "high hazard potential" by the state dam safety agency in the state in which the dam is located			
The dam has an emergency action plan approved by the relevant state dam safety agency			
The state in which the dam is located has determined that the dam both fails to meet minimum dam safety standards of the state; and poses an unacceptable risk to the public.			
The dam is NOT a licensed hydroelectric dam, or a dam built under the authority of the Secretary of Agriculture			
Subrecipient Eligibility			
The subrecipient participates in, and complies with, all applicable federal flood insurance programs			
The subrecipient has (in place) a FEMA-approved state, local, or tribal hazard mitigation plan that includes all dam risks; and complies with the Disaster Mitigation Act of 2000 (Public Law 106–390; 114 Stat. 1552)			
The subrecipient carries out activities relating to the public in the area around the dam in accordance with the hazard mitigation plan			
The subrecipient has committed to provide operation and maintenance of the project for the 50-year period following completion of rehabilitation			
The subrecipient acts in accordance with the state dam safety program			
The subrecipient has (in place) a floodplain management plan that meets the minimum criteria; or will develop one not later than one year after the date of execution of a project agreement for assistance under this section; and implement it not later than one year after the date of completion of construction of the project			
The subrecipient can secure non-federal cost-sharing amount of not less than 35 percent of the total application costs			
Did the applicant provide a statement that the subapplicant will comply with Chapter 11 of Title 40; Selection of Architects and Engineers?			

[6] The term "state" means each of the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States. Dams on Tribal Lands are not eligible to receive HHPD funding because they qualify for rehabilitation funding under the Dam Safety Maintenance and Repair Program. This program (established by the Indian Dam Safety Act of 1994 and administered by the Bureau of Indian Affairs) funds maintenance, monitoring, and rehabilitation of dams located on Indian lands.

	Yes		
The subrecipient can comply with section 5196(j)(9) of title 42 (as in effect on December 16, 2016)			

APPENDIX E: MINIMUM CRITERIA CHECKLIST FOR PROJECT APPLICATIONS

Applications submitted to FEMA that do not contain at least the basic components listed below may be immediately denied because there is no method to determine eligibility without these data. Additional information may be requested during FEMA review. This information is required for all submittals, including potential substitutions, but further details may be requested to complete the application.

TableE-1: Minimum Criteria Checklist For Projects

Subapplication Component	Yes	No	Comment
Applicant and Subapplicant Eligibility			
Did the applicant provide a list of all eligible dams in their state (with supporting documentation)?			
Did the applicant's risk-based prioritization method meet FEMA minimum requirements and was all necessary documentation provided?			
Did the applicant include a statement that they will comply with regulations associated with receipt of federal financial contributions from FEMA?			
Did the applicant include a Program Work Plan for administration of the HHPD grant program that complies with the requirements in Sections 5.1?			
Did the applicant include a Grant Management Plan for administration of the HHPD grant program that complies with the requirements in Section 5.4?			
Did the applicant provide a statement that the subapplicant will comply with Chapter 11 of Title 40; Selection of Architects and Engineers?			
Did the applicant or subapplicant provide a conflict of interest statement that makes them ineligible for HHPD grant funding?			
Project Eligibility			
Does the application include a statement of project approval from the relevant state dam safety agency?			
Did the application include a statement that the project reduces risk and brings the dam into compliance with state standards?			
Are all engineering studies, plans, design drawings, and specifications approved, signed, and stamped by a qualified design professional registered in the state in which the project is located?			
Does the Program Work Plan amendment include details required by Section 5.1?			
Cost Review			
Does the application demonstrate that the non-federal entity can meet the cost share requirements?			
Schedule			

Subapplication Component	Yes	No	Comment
Does the application include a work schedule for 3 years or less that conforms to the POP requirements?			
Hazard Mitigation Plan Requirements			
Do the applicant and subapplicant, as applicable, have a FEMA-approved hazard mitigation plan that includes all dam risks? Coordination with FEMA Senior Regional Mitigation Planner to confirm plan approval status and if the plan includes all dam risks.			
If applicable, was a request from the applicant for state mitigation plan extraordinary circumstance included with a written justification that identifies the circumstance for not meeting the mitigation plan requirement and explains how a state mitigation plan will include all dam risks and be approved by FEMA within twelve (12) months.			
If applicable, was a request from the recipient for local mitigation plan extraordinary circumstance included with a written justification that identifies the circumstance for not meeting the mitigation plan requirement and explains how a local mitigation plan will include all dam risks and be approved by FEMA within twelve (12) months.			
Floodplain Management Plans			
Is there floodplain management plan for the dam in-place?			
Does the application include a statement saying the plan will be developed not later than 1 year after the date of execution of a project agreement and implemented not later than 1 year after the date of completion of construction of the project?			
Does the plan address potential measures, practices, and policies to reduce loss of life, injuries, damage to property and facilities, public expenditures, and other adverse impacts of flooding in the area impacted by the project?			
Does the plan include plans for flood fighting and evacuation?			
Does the plan include public education and awareness of flood risks?			
Operation and Maintenance			
Does the application include an Operation and Maintenance Agreement where all applicable parties enter a legally binding contract to provide operation and maintenance of the project for the 50-year period following completion of rehabilitation?.			
Are roles and responsibilities clearly defined in the O&M Agreement and was it signed by all participating entities?			
Does the application include an assurance the subapplicant will have adequate funding resources for Operation and Maintenance activities to be carried out over 50-year period following completion of rehabilitation project?			
Environmental and Historical Preservation			
Does the application include information to demonstrate conformance with 44 CFR Part 9 and FEMA Directive 108-			

Subapplication Component	Yes	No	Comment
1, *Environmental Planning and Historic Preservation, Responsibilities and Program Requirements*?			
Does the application include information and documentation required by the EHP Checklist, including all available information relating to known historic, archaeological, or environmentally sensitive areas (e.g., Waters of the United States or otherwise protected areas)?			
Does the application demonstrate and document consideration of alternatives that avoid or minimize harm to the environment or historic resources?			
Does the application include documentation of all coordination, correspondence, consultation, or previous EHP reviews with appropriate federal, state, and local agencies?			
Does the application include all known EHP costs?			

APPENDIX F: EHP CHECKLIST AND RESOURCES

Applicant/subrecipient must complete the EHP Checklist and provide information and documentation. Any relevant information or studies related to EHP considerations identified and addressed in previous project planning activities by FEMA, another federal agency, or an agency with designated federal authority should also be provided and may be used to satisfy the EHP compliance requirements at FEMA's discretion.

"Yes" indicates that the environmental regulation or statute may apply to your project. Please provide relevant information and/or documentation to support your answers. This list is not all-inclusive.

Table F-1: EHP Checklist

Environmental Regulation or Statute		Yes	No
National Historic Preservation Act (NHPA)			
1.A	Would the proposed activity affect, or is the proposed activity in close proximity to, any buildings or structures 50 years or more in age? What is the construction date of the dam?		
1.B	Will the proposed activity involve disturbance of ground? If yes, provide a description and dimensions of the anticipated ground disturbance.		
Endangered Species Act (ESA)			
2.A	Are federally listed or endangered species, or their critical habitat, present in or near the project area and, if so, which species are present?		
2.B	Will the propose activity remove or affect vegetation?		
2.C	Is the proposed activity in or near (within 200 feet), or likely to affect, any type of water body or body of water?		
Clean Water Act (CWA) and Rivers and Harbors Act			
3.A	Will the proposed activity involve dredging or disposal of dredged material, excavation, the addition of fill material, or result in any modification to water bodies or wetlands designated as "waters of the United States" as identified by the U.S. Army Corps of Engineers or the National Wetland Inventory?		
Executive Order 11988 (Protection of Floodplains) and Executive Order 11990 (Protection of Wetlands)			
4.A	Does a Flood Insurance Rate Map, Flood Hazard Boundary Map, hydrology study, or some other source indicate the activity is located in, or will affect, a 100-year floodplain, a 500-year floodplain (if a critical action), an identified regulatory floodway, or an area prone to flooding?		
4.B	Is the proposed activity located in, or will it affect, a wetland as listed in the National Wetland Inventory?		
4.C	Will the proposed activity alter a watercourse, water flow patterns, or a drainage way, regardless of floodplain designation?		
4.D	Is the proposed activity located in, or will it affect, a floodplain or wetland?		
Coastal Zone Management Act (CZMA) and Coastal Barrier Resources Act (CBRA)			
5.A	Is the proposed activity located in the state's designated coastal zone?		
5.B	Is the proposed activity located in a Coastal Barrier Resources System Unit or Otherwise Protected Area?		

Environmental Regulation or Statute		Yes	No
Farmland Protection Policy Act (FPPA)			
6.A	Will the proposed activity convert more than 5 acres of "prime or unique" farmland outside city limits to a non-agricultural use?		
Resource Conservation Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act			
7.A	Is there reason to suspect there are contaminants from a current or past use on the property associated with the proposed activity?		
7.B	Are there any studies, investigations, or enforcement actions related to the property associated with the proposed activity?		
7.C	Will any project construction or operation activities involve the use of hazardous or toxic materials?		
7.D	Are any of the current or past land uses of the property associated with the proposed activity, or are any of the adjacent properties associated with toxic materials?		
Executive Order 12898 (Federal Actions to Address Environmental Justice for Low-Income and Minority Populations)			
8.A	Are there any low-income and/or minority populations in the project's area of effect or adjacent to the property? If yes, provide a plan to provide these populations access to public information on, and an opportunity for public participation in, matters relating to the environment.		
Other Environmental/Historic Preservation Laws (including applicable state laws) or Issues			
9.A	Are other environmental/historic preservation requirements associated with this project?		
9.B	Are any controversial issues associated with this project?		
9.C	Have any public meetings been conducted, public notices been circulated, or public comments been solicited on the proposed project?		

Table F-2: Environmental Planning and Historic Preservation Resources

Name of Information Source	Where to find it
Environmental Planning and Historic Preservation (EHP) Program	http://www.fema.gov/environmental-planning-and-historic-preservation-program
IS-253.A: Overview of FEMA's EHP Review	http://training.fema.gov/EMIWeb/IS/IS253a.asp
EHP Resources At-a-Glance: Laws, Rules and Tools	http://www.fema.gov/media-library/assets/documents/30805
National Register of Historic Places	https://www.nps.gov/subjects/nationalregister/index.htm

APPENDIX G: O&M PLAN TEMPLATE

Applicants are required to provide an operation and maintenance plan that demonstrates that the owner of the dam has developed and will carry out a plan for maintenance of the dam for the 50-year period following completion of rehabilitation project. See Appendix B, *Definitions*, for the definition of routine operation and maintenance. The basic elements that should be included in the O&M Plan are presented in Table G-1. An example O&M Financial Plan and Agreement is presented in Appendix G.1.

Table G-1: Table of Contents for Template O&M Plan

Major Headings		Subheading	Comments
1	General	Dam Description	Include a description of the dam, location, inundation area, and NID information. A location map, a plan view of the dam with labeled features, and an inundation map should be included.
		Dam History	Include the history of any potential failure modes and potential impacts.
		Authorization	List the owner and operator of the dam, contractors used for maintenance, or other stakeholders involved in O&M activities. If the O&M plan was developed in accordance to any specific standards, include the information here.
		Roles and responsibilities	Define the roles and responsibilities that will be carried out by the dam owner, operator, sponsor, and any others that have O&M duties.
		Personnel Training and Qualifications	Minimum standards for training and qualifications of personnel carrying out O&M activities.
		Glossary	Define terms used in the plan.
2	Operating Procedures	Routine Operation	Include the method and frequency of all normal operating procedures for the dam. Examples: instrumentation readings, reservoir and control gate operation, seasonal operational procedures.
		Flood Operation	Include procedures to be followed for flood conditions. Examples: Procedures for safe drawdown rate of the reservoir.
		Design Features with Safety Limits	Include information about the safe operating limits of features of the dam. Examples: Gate operation, boat lock operation, etc.
		Equipment Operating and Testing Procedures	Include information about the normal operation of equipment and normal testing procedures.
		Instrumentation Requirements	Define the safety limits for each instrument. Example: list safety limits for staff gauge, weirs, or piezometer readings.
3	Maintenance Procedures	Summary and Schedule Table	Include a summary of maintenance activities and a schedule.
		Routine Maintenance	Include the method and frequency of all normal maintenance activities for the dam. Examples: mowing, repairs to vegetation, painting, instrumentation calibration, flushing drains/relief wells, clearing debris from spillways.
		Major Maintenance	Example: Repair of concrete and riprap replacement.
		Checklists	Include checklists of maintenance activities.

Major Headings		Subheading	Comments
4	Inspection	Review	Review of existing documents and previous inspection reports.
		Schedule for Inspections	Must comply with state regulatory requirements for high hazard dams. • Safety Inspection for high hazard dams (typically annual but varies by state). • Special inspections (after unusual events).
		Recommended Repairs	Must specify that required repairs will be completed within one year of inspection.
		Checklists	Include checklists of inspection activities.
5	File and Records Management	Inspection Reports	Must specify that all inspection reports will be filed with the state dam safety office. Must specify that copies of reports will be maintained in the O&M manual.
		Dam Incidents	Must specify that all dam incidents will be reported to the state dam safety office. Must specify that copies of reports will be maintained in the O&M manual.
6	Permit Applications	Past Proposed	Must specify that any modifications planned for the dam must be approved by filing a permit with state dam safety office. Request that the state dam safety office notify FEMA.
7	Review and Revision of O&M Plan	Review History Revision History	The O&M Plan should be reviewed and updated at least every five years, or whenever conditions change.
9	Liability Clause	FEMA Clause	This dam was rehabilitated in [year] with funds from the High Hazard Potential Dams grant program. Any changes to the operation or maintenance of the dam will be reported to State Dam Safety office and FEMA within a month of the change. The dam owner and the dam owner's successors, agents, and assigns shall have sole responsibility for the safety of the authorized dam and appurtenant structures and any associated liability. If FEMA determines that the recipient or subrecipient fail to comply with the provisions of the O&M Plan, O&M Agreement, or O&M Financial Plan, the recipient will reimburse the federal government for the financial assistance provided by FEMA, and the appropriate portions of FEMA financial assistance provided for other practices that will be adversely affected by the violation. In the case of failure to comply, the federal government reserves the right to take any further actions it deems necessary.
10	O&M Agreement		Attach or reference the O&M Agreement.
11	O&M Financial Plan		Attach or reference the O&M Financial Plan.

APPENDIX G.1: Sample O&M Agreement and Financial Plan

This document is a legally binding contract and supplements the Operation and Maintenance (O&M) Agreement for *Name dam here (include NID ID)* dated *insert date here*. It may be revised by mutual consent of all signatory parties, hereinafter referred to as the Sponsors:

- *List all sponsors here. Some examples may include*:
  - *Conservation or water district.*
  - *Dam owner.*
  - *State dam safety representative.*
  - *State or local government representative.*

The sponsors' responsibility for O&M begins when the rehabilitation project is determined complete by FEMA and extends through the 50-year period following completion of rehabilitation, or the expected life of the dam, whichever is longer. Note that sponsors may continue to be liable after the expiration of this O&M Agreement, until the dam and any appurtenant structures are removed or modified to eliminate potential hazards.

General Responsibilities

Sponsor 1 (name applicable sponsor) will:

- Complete all maintenance, repair, or replacement activities within a reasonable time after the identification of such need.
- Be responsible for the replacement of structure components that have a design life of less duration than the expected life of the dam as specified in the O&M Plan.
- Obtain prior approval from FEMA for any planned alteration to the dam or its appurtenant structures.
- Prohibit the installation of any structure or facility that negatively impacts the safety of the dam or interferes with the operation or maintenance of the dam and its structures.
- Notify FEMA of any proposed agreement with other parties for the operation or maintenance of all or any part of the structures and provide FEMA with a copy of the executed agreement. Such agreements will not negate the Sponsors' responsibilities as stated in this agreement.
- Provide FEMA personnel or its agents the right of free access to the structure sites at any reasonable time for the purpose of carrying out the terms of the agreement.
- Comply with all applicable federal, state, local, and tribal laws and regulations.
- Consider air and water quality, sediment control, and other environmental concerns in the operation and maintenance of the structures.

Sponsor 2 (name applicable sponsor) will:

- Be responsible for inspecting, operating and performing, or having performed, all operation, maintenance, and replacement activities associated with the dam and its components, as described in the O&M Plan.
- Assure that the EAP is reviewed and updated annually.
- Establish and maintain a method of fund management for the operation, maintenance, and replacement of structures/components associated with the dam.

Inspections and Reports

Sponsors 1 and 2 (name applicable Sponsors) shall inspect the structures as specified in the O&M Plans. FEMA may inspect the structures at any reasonable time during the period covered by this agreement. The sponsor responsible for conducting the inspections shall prepare a written report of each inspection and provide a copy to the state dam safety office and FEMA within 30 days of the date the inspection was conducted. The report shall include the following:

- Date(s) of inspection.
- Names of inspectors and participants.
- Features of the practice that were inspected.
- Description of conditions observed.
- Maintenance work required.
- Planned maintenance work schedule.

Any unusual circumstances observed between annual inspections will be reported immediately to the state dam safety office and FEMA.

Records

Sponsor 2 (name applicable sponsor) will be responsible for O&M of specific structures and will retain a record of all inspections and O&M performed including, costs and completion dates. Records shall be made available to FEMA upon request.

Estimated Annual O&M Costs and Sources of Funding

The following are anticipated average annual costs for O&M and the method of financing that the sponsors will use to obtain funds. Funds for these activities will be obtained from ___*list the source of funding here (examples: charging fees to those who benefit from the dam, or including a list of amounts that will be contributed annually by each Sponsor)*_____ and will be __*list the method of fund management here (example: held in an operation and maintenance escrow account until needed and unused amounts will be added to escrow account each year*____. All costs will be updated at least once every 5 years to account for inflation and to adjust the amount to be added to the escrow account.

Estimated annual O&M costs are as follows (*see examples in the table*):

Activity*	Estimated Annual Cost
Vegetation (Mow 6 times in the growing season and fertilize twice a year)	$2,000
Remove Debris (Clean trash racks and spillways 6 times a year)	$500
Maintain Instrumentation (calibrate piezometers, flush toe drains, etc.)	$500
Replacement of principal spillway control gate (assuming gate cost is $20,000 with a 50-year service life)	$400
Hire professional engineer for annual safety inspection	$5,000
Update EAP (annual)	$500
Update O&M Plan (every 5 years)	$100
Estimated Annual Total:	**$9,000**

*Activities should correlate to activities listed in the O&M manual.

Violations

This O&M Agreement is a legally binding contract which shall be enforced as necessary to protect the interests of the government and the general public.

If FEMA determines that the sponsor(s) fail to comply with the provisions of the O&M Agreement and O&M Plan(s), the sponsor(s) will reimburse the federal government for the financial assistance provided by FEMA. The federal government shall have the right to take any further actions it deems necessary.

Review and Revision of this Agreement

This agreement and associated O&M Plans shall be reviewed at least once every 5 years by the sponsors. This O&M Agreement and associated O&M Plans may be revised by mutual consent of both the sponsors and FEMA.

Assurance Statement:

The O&M Plan for *Name dam here (include NID ID* is attached to and incorporated with this agreement. The undersigned sponsors agree to carry out the terms of this agreement and commit to provide operation and maintenance of for *Name dam here* for the 50-year period following completion of rehabilitation, or the expected life of the dam, whichever is longer.

Concurrence

This plan was authorized at an official meeting of all of the sponsors, as signed below:

Sponsor 1

Signature: _____ Date: _____

Title: _____ Location: _____

Sponsor 2

Signature: _____ Date: _____

Title: _____ Location: _____

Sponsor 3

Signature: _____ Date: _____

Title: _____ Location: _____

APPENDIX H: SAMPLE HHPD FLOODPLAIN MANAGEMENT PLAN OUTLINE

The state is the applicant or recipient of grant funds. Subrecipients are required to provide a floodplain management plan that demonstrates efforts to reduce the impacts of future flood events in the area impacted by the dam project. The basic elements that should be included in the HHPD floodplain management plan are presented in the following outline.

Floodplain Management Outline

Introduction

- Purpose of the floodplain management plan
- Description of existing relevant regulatory requirements including NFIP, state, local, and municipal regulations
- Description of the area impacted by the dam

Roles, Responsibilities, and the Floodplain Management Plan Development Process

- Identify the party (i.e., planner, floodplain manager, or planning committee) responsible for overall accomplishment of the HHPD floodplain management plan
- Clearly define roles and responsibilities for all entities responsible for elements of the floodplain management plan. All parties named in the plan must sign a concurrence statement that they agree to implement their roles.
- Describe meetings and public involvement and include records or other documentation

Post-Project Floodplain Hazard Assessment

- A description of the dam and potential flood hazards.
- A description and delineation of the floodway and storage areas.
- A description and delineation of different flood inundation scenarios
- A characterization of the post-project conditions associated with incremental, non-breach, and residual risk (see Appendix B, *Definitions*)
- A description of the natural and beneficial values including potential recreation areas, open space, wetlands and wildlife preserves

Floodplain Management Plan Goals

- Identify and describe (in detail) potential measures, risk reduction strategies, practices, and policies to reduce:
    - Injuries and loss of life
    - Damage to property and facilities
    - Public expenditures
    - Any other known adverse impacts of flooding in the area impacted by the project
- Plans for flood fighting and evacuation
- Public education and awareness of flood risks
- Considered Tools and Strategies
    - List tools and strategies considered and reasons for inclusion or rejection

APPENDIX I: EXAMPLE RISK-BASED PRIORITIZATION METHOD

For each item evaluated, the state should develop and document the specific criteria used to determine the corresponding category. Example values for likelihood of failure were derived from the 2008 FEMA Risk Prioritization Tool for Dams and the National Resource Conservation Service (NRCS) Evaluation of Potential Rehabilitation Projects. Example values for consequences of failure were derived from the 2012 Australia National Committee on Large Dams (ANCOLD) Guidelines on the Consequence Categories for Dams.

Note: Other failure modes and consequences may be considered. These are examples.

Approximate/Relative Likelihood of Failure

Approximate/Relative Likelihood of Failure	Static Failure Mode Criteria	Hydrologic Failure Mode Criteria	Hydrologic Failure Mode Criteria
Very High	Static Factor of Safety < 1 OR Most recent inspection indicates severe deficiencies that are likely to cause failure of the dam in the short-term (within the next 10 years)	Dam can pass less than a 10-year storm without overtopping (unless dam is designed to overtop)	Seismic Factor of Safety < 1 for ground motions with an annual probability of exceedance of 1 in 10 years OR 2% Probability of Exceedance in 50 years peak ground acceleration (PGA) > 0.6
High	1.1 > Static Factor of Safety > 1 OR Most recent inspection indicates one or more major deficiencies related to dam condition	Dam can pass between a 10-year and a 100-year storm without overtopping (unless dam is designed to overtop)	Seismic Factor of Safety < 1 for operating basis earthquake OR 0.3 < 2% Probability of Exceedance in 50 years peak ground acceleration (PGA) > 0.6
Moderate	1.2 > Static Factor of Safety > 1.1 OR Most recent inspection indicates one or more significant deficiencies related to dam condition	Dam can pass between a 100-year and 1,000-year storm without overtopping (unless dam is designed to overtop)	Seismic Factor of Safety > 1 for operating basis earthquake but < 1 for maximum design earthquake OR 0.2 < 2% Probability of Exceedance in 50 years peak ground acceleration (PGA) > 0.3

Approximate/Relative Likelihood of Failure	Static Failure Mode Criteria	Hydrologic Failure Mode Criteria	Hydrologic Failure Mode Criteria
Low	1.5 > Static Factor of Safety > 1.2 OR Most recent inspection indicates no significant deficiencies related to dam condition	Dam can pass between a 1,000-year and a Probable Maximum Precipitation storm without overtopping (unless dam is designed to overtop)	Seismic Factor of Safety > 1.1 for maximum design earthquake OR 2% Probability of Exceedance in 50 years peak ground acceleration (PGA) < 0.2
Additional Considerations	Persistent dam safety issues noted in past inspections that have not been addressed over the years, past seepage history, instrumentation readings, known design and/or construction deficiencies, and non-routine operational issues	spillway redundancy, condition of the spillways, whether the dam has previously overtopped, and non-routine operational issues	whether the embankment and/or foundation is comprised of liquefiable materials

Notes: A value of "Low" should only be assigned if all of the information required to evaluate the criteria is available. If there is missing or incomplete information, the dam should be assigned a moderate or higher risk likelihood.

Approximate / Relative Consequences of Failure

Approximate / Relative Consequences of Failure	Population at Risk (PAR) and Warning Time	Economic Losses	Environmental Losses
Very High	PAR > 100 and warning time is not sufficient to evacuate the majority of the persons from the inundation area	Exceed $1 Billion	losses would likely be severe and permanent
High	PAR > 100 and warning time is considered sufficient to evacuate some of the persons from the inundation area	$100 Million - $1 Billion	losses are expected to be significant and could be remediated, but would take many year
Moderate	PAR 10-100 and warning time is considered sufficient to evacuate the majority of persons from the inundation area	$10 Million - $100 Million	losses could be remediated, but would take several years
Low	PAR 1-10 and warning time is considered sufficient to evacuate most persons from the inundation area	Less than $10 Million	losses could be sustained as a result, but remediation is possible
Additional Considerations	Number of critical facilities (such as hospitals, first responders, senior care centers, emergency operation centers, schools, etc.) within the inundation zone and whether the EAP is current and has been recently exercised	Recovery costs	Critical or endangered species, habitats, etc.

Note: The most severe consequences (e.g. highest of PAR/Warning Time, Economic, and Environmental) should be used to prioritize the dam.