

Priority System Process for the Rehabilitation of High Hazard Potential Dams (HHPD) Grants

The National Dam Safety Review Board recommended a Project Prioritization Method for applicants to use to meet the priority system process required by the Water Infrastructure Improvements for the Nation Act, as amended by 33 USC 467f-2. The Project Prioritization Method described in this fact sheet will launch with the upcoming HHPD Notice of Funding Opportunity.

Background

The Rehabilitation of High Hazard Potential Dams (HHPD) program was authorized by Congress in the Water Infrastructure Improvements for the Nation Act” or the “WIIN Act” and signed into law by the President on December 16, 2016. The law added a new grant program under FEMA’s National Dam Safety Program (33USC 467f-2). Section 5006 of the Act, Rehabilitation of High Hazard Potential Dams, provides technical, planning, design, and construction assistance in the form of grants to eligible subrecipients for the rehabilitation or removal of eligible high hazard potential dams.

The legislation requires that FEMA develop a priority system in consultation with the National Dam Safety Review Board (NDSRB) for use by applicants in identifying eligible high hazard potential dams that “fail to meet minimum dam safety standards of the State in which the dam is located and poses an unacceptable risk to the public, as determined by the State” (33USC 467(4)(iv)).¹

In 2021, the NDSRB assigned a team that included five state voting members of the Board and federal partners to recommend the project priority system for the HHPD grant program. The NDSRB team met 28 times to discuss the priority system and considered input collected from several “listening sessions” FEMA coordinated with stakeholders and the general public. On April 26, 2023, the NDSRB confirmed the recommendation.

¹ State refers to “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.” (33USC 467f-2 definitions)



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.

Prioritization and the HHPD NOFO Process

Once the Notice of Funding Opportunity (NOFO) is announced, the HHPD application process consists of two parts:

- Part 1 of the application process establishes the funding states will receive by successfully making application for that grant period.
- Part 2 is to be performed by the states after they receive notification of successful application. During Part 2 of the process, grant recipients prioritize and document how the funds will be allocated to eligible subrecipients.

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

- (A) In general 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 that—
 - (I) is approved by the relevant State dam safety agency; or
 - (II) is in conformance with State law and pending approval by the relevant State dam safety agency;
 - (iv) fails to meet minimum dam safety standards of the State in which the dam is located, as determined by the State; and
 - (v) poses an unacceptable risk to the public, as determined by the Administrator, in consultation with the Board.
- (B) Exclusion The term “eligible high hazard potential dam” does not include—
- (i) a licensed hydroelectric dam under a hydropower project with an authorized installed capacity of greater than 1.5 megawatts; or
 - (ii) a dam built under the authority of the Secretary of Agriculture.

For Part 1 of the application process, applicants for HHPD grants will be required to identify eligible high hazard potential dams in their state that meet the Act definition of Eligible High Hazard Potential Dam and are listed in the National Inventory of Dams (NID) with a condition assessment of POOR or UNSATISFACTORY without regard to population at risk (PAR). Applicants will also be asked to identify Act eligible dams with a FAIR condition assessment with a PAR greater than 1000. To assist applicants, FEMA will provide each state making application a list of Act eligible dams with a NID FAIR condition assessment for which FEMA has estimated a PAR greater than 1000². The list of dams must only include dams with a documented dam safety deficiency that results in the dam not complying with state standards. Deficiencies that result from deferred maintenance are not eligible for consideration. The draft

² FEMA estimation of PAR based on NID data assuming a sunny day failure with a volume at top of dam.

list of potential dams is emailed to each state individually, and states may have an open discussion with NDSP staff regarding dams with missing or outdated information in the NID. Once the list of eligible dams is reconciled, NDSP will use the number of eligible dams to calculate allocations based on the funding formula specified in the Act.

33 U.S.C § 467f-2 (g)(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: $\frac{1}{3}$ shall be distributed equally among the States in which the projects for which applications are submitted under subsection (c)(1) are located.
- (B) Need-based: $\frac{2}{3}$ 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.

After FEMA notifies applicants of their successful application and their funding allocation, grant recipients are required to use the HHPD priority system process to prioritize dams that will receive HHPD funding. Part 2 of the application process involves application of two tools to estimate risk and risk reduction. The FEMA Project Prioritization Tool will be used to estimate the likelihood of failure and the US Army Corps of Engineers Dam Screening Tool (DST) will be used to estimate PAR consequences. Grant recipients will be required to prioritize projects based on risk reduction for the greatest PAR for dams under consideration for funding. Grant recipients may also choose to conduct a secondary prioritization based on other risk-based factors determined by the state as a better indicator of risk reduction than simple PAR.

HHPD Project Prioritization Tools

The FEMA Project Prioritization Tool is an Excel-based tool developed specifically for the HHPD grants. This screening level tool requires input from the NID and data available from other state sources such as inspection reports. The tool assists in the estimation of the likelihood of failure for static, hydrologic, and seismic failure modes based on existing deficiencies and the change in likelihood of failure by removing the deficiencies and bringing the dam in compliance with state standards.

The USACE DST is a web-based tool used to estimate consequences. The DST estimates PAR in the dam breach flood inundation zone, economic losses to buildings in the flood inundation area, and the tool has a simplified version of the USACE LifeSIM program to estimate potential loss of life.

The HHPD Priority System Process requires that dams under consideration for HHPD funding be plotted on a HHPD risk matrix (see matrix) with the likelihood of failure from the FEMA Project Prioritization Tool on the vertical axis and the DST calculated consequences of the horizontal axis. Comparing the dams based on likelihood of failure and PAR consequences provide a ranking of dams consistent with the intent of the Act.

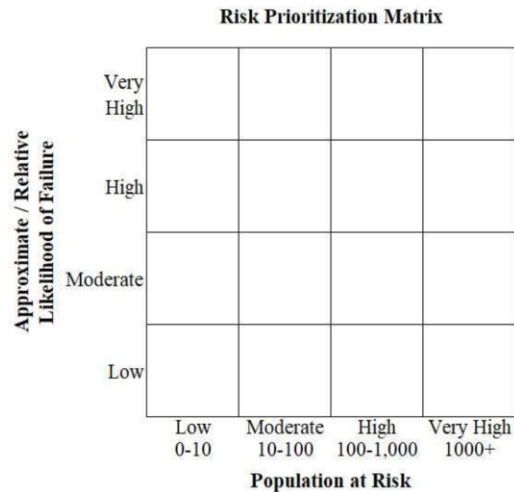


Figure 1. HHPD Priority System Process Matrix

PAR is an indicator of consequences but may not be the best indicator in some states. After the initial ranking, grant recipients may conduct a secondary prioritization based on other risk-based factors determined by the state as a better indicator of risk reduction than simple PAR.

FEMA and the USACE are developing the Project Prioritization and the DST for use in future the HHPD grant program Notice of Funding Opportunities. The two tools are being pilot tested on dams in 9 states located throughout the US. State input and lessons learned are being incorporated into the version of the tools that will be released in support of the HHPD.

Guidance for the priority process and tools will be developed and training provided to states beginning late 2023. Part 2 of the Priority System Process based on the NOFO issued in fall 2023 will occur in Spring 2024.