Dam Rehabilitation/Removal Grant Program for Municipally Owned High Hazard Dams

Application Instructions and Evaluation Criteria

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A. Introduction

The Dam Rehabilitation/Removal Grant Program for Municipally Owned High Hazard Dams, to be administered through the New Hampshire Department of Environmental Services - Dam Bureau (NHDES), is being established to support the reconstruction, rehabilitation or removal of municipally owned high hazard dams, which have been determined to be in Poor or Unsatisfactory condition. The purpose of the funding is to make such dams compliant with current state dam safety standards or remove them to eliminate risk to lives and property within potentially inundated areas downstream of those dams. New Hampshire's municipalities own 218 dams. Forty-nine of them are classified as High Hazard Dams because their failure would cause flooding that would inundate houses or other occupied structures downstream and likely cause loss of life. Of those, 16 are currently rated in Poor condition. There are no municipally owned dams currently rated in Unsatisfactory condition. Federal funding for this grant opportunity is provided by the American Rescue Plan Act (ARPA).

B. Application Process

NHDES is accepting applications, which will be reviewed and ranked by a NHDES grant review committee according to the criteria outlined in Section G. Grant applicants may be asked to organize a project site visit with the NHDES grant review committee. Applicants with the highest-ranking applications will be notified in writing and must enter into a Grant Agreement with NHDES to receive funds. The final Grant Agreement will be subject to successful negotiation and State of New Hampshire Governor and Executive Council approval.

C. Eligible Applicants

Eligible applicants include New Hampshire municipalities and municipal subdivisions that own one or more high hazard dams rated in Poor or Unsatisfactory condition. Multiple applications from the same municipality, in conformance with the funding limitations outlined in Section E, will be considered.

D. Project Eligibility

For a project to be eligible, the dam must be in Poor or Unsatisfactory condition. In accordance with current condition assessment criteria dams are designated as either Satisfactory, Fair, Poor or Unsatisfactory. A dam is rated Satisfactory if no existing or potential dam safety deficiencies are observed and is rated Fair if only minor deficiencies exist and the dam can safely withstand all required loading conditions from floods or earthquakes. A dam is rated Poor if it cannot withstand the required loading conditions from floods and earthquakes and exhibits other conditions that suggest instability in key components. Dams in New Hampshire that are rated Poor typically lack the required discharge capacity to safely pass the design flood and would be overtopped and could fail if that flood occurred. A dam that is rated Unsatisfactory is considered unsafe. For those dams, NHDES typically requires the impoundment to be drained until the dam can be rehabilitated.

Eligible projects can fall under one of the following project categories: Planning and Assessment and Implementation. Applicants can apply under the project category that best describes the purpose of their project, but implementation projects are preferred. Projects that span both categories will be considered (i.e., a planning or assessment project leading to implementation). All projects must address the deficiency or deficiencies that resulted in the dam being designated in Poor or Unsatisfactory condition, and implementation projects must result in improving the Condition Assessment of the dam to Satisfactory.

Planning and Assessment

Many communities that own dams, especially those classified as high hazard, understand the need to identify and manage risk. This Dam Rehabilitation/Removal effort is meant, in part, to provide opportunities for municipal owners to identify and prioritize projects, gather data, and develop preliminary designs to lay the groundwork for successful implementation projects that improve critical dam infrastructure and reduce risk to downstream lives, property and the environment; or remove the risk entirely. The planning and assessment category will support the development of plans that identify specific needs and solutions to make high hazard dams compliant with current state dam safety regulations, including the evaluation and prioritization of alternatives, and preliminary designs for reconstruction, rehabilitation or removal.

Planning and assessment project examples include:

- Developing a capital improvement plan with an emphasis on ensuring structural stability and promoting dam longevity.
- Performing hydrological analyses of contributing watersheds and hydraulic analyses of dam structures to ensure adequate capacity.
- Performing dam failure modeling to identify the population at risk and other potential impacts to downstream development.
- Conducting feasibility studies, site assessments/investigations and preliminary designs related to dam rehabilitation or removal.

Implementation

Funding for implementation projects may be used for advancing preliminary designs into final designs, preparing engineering plans and specifications and bid documents, preparing permit applications and obtaining all required permits, and executing reconstruction, rehabilitation or removal activities. For all implementation projects, applicants will have to describe and document the planning, assessments and prioritization of projects that have occurred prior to application.

Implementation project examples include, but are not limited to:

- Reconstructing/rehabilitating dams to complywith current state dam safety regulations and improving the Condition Assessment from Poor to Satisfactory.
- Removing or modifying dams to reduce or eliminate risk, and eliminate the Condition Assessment of Poor or Unsatisfactory
- Associated dredging or other riverine/bank modifications to promote fish passage, aquatic health, habitat restoration or other related benefits.

E. Funding Availability

The Dam Rehabilitation/Removal grant program expects to award approximately $5,000,000 in grants. The amount of funding requested for any project should reflect the scope and needs of the proposed project and must not exceed $1,000,000 for any qualifying dam. Total project cost may exceed $1,000,000 per project, however, a maximum of $1,000,000 will be reimbursed. NHDES will not reimburse work completed prior to the grant approval. Activities associated with typical upkeep and maintenance activities, or other work not

directly associated with planning or executing work related to compliance with current dam safety regulations, are not eligible. There is **no match requirement** for the Dam Rehabilitation/Removal grant program.

F. Application Instructions

Section 1: Applicant Information

1.1 **Organization Name:** *Enter the name of the lead applicant organization.*

1.2 **Mailing Address:** *Enter the mailing address of the lead application organization.*

1.3 **Primary Contact Person:** *Enter the name of the primary contact person for the application.*

1.4 **Contact Email:** *Enter the email address of the primary contact person.*

1.5 **Contact Phone:** *Enter the phone number of the primary contact person.*

Section 2: Project Information

2.1 **Project Location:** *Include dam name, state ID number, city/town and stream/river.*

2.2 **Project Type:** *Choose at least one of the following project categories that best describes the purpose of the project. If the proposed project is an implementation project with a planning and/or assessment component, choose both options. Descriptions of project categories are provided in Section D of the Application Instructions.*

a) Planning and Assessment.

b) Implementation.

2.3 **Project Summary:** *Enter a clear and succinct description of the goals of the project and the most important project details for which grant funds are to be used.*

2.4 **Project Alternatives *Considered:*** *Describe any alternatives that were considered and the justification for selecting the project outlined in 2.3, above.*

2.5 **Project Status:** *If grant funds are being requested for a project that is currently underway, provide a summary of activities that have occurred to date along with how the requested funds will advance or add to project goals.*

2.6 **Other Project Information:** *Provide a status of the following documents, and indicate whether or not the proposed project will include effort to develop or update each.*

a) Emergency Action Plan.
b) Operation, Maintenance and Response form.

Section 3: Project Need and Outcomes

3.1 **Project Need**: *Describe the dam's current deficiencies and/or vulnerabilities that exist and how the proposed project is expected to address them.*

3.2 **Anticipated Desired Outcome and Project Benefits:** *Clearly articulate how the project will improve*

conditions at the dam, reduce or eliminate risk or otherwise benefit river restorationand/or the environment. Provide specific references to current dam safety regulations as support, if applicable.

3.3 **Long-term Maintenance and Repair Goals:** *Explain how the improvements made using these grant funds will be maintained/preserved, as applicable, so as to extend the life of the improvements and the longevity/safety of the dam.*

Section 4: Project Team and Work Plan

4.1 **Project Team:** *List key project team members, including any team members from partner organizations, engineering consultants and subcontractors funded by the grant, and identify their affiliation, role in the project, and relevant expertise. List only those project team members that will be involved incarrying out project tasks and will receive a portion of the grant funds requested.*

a) Name:
Affiliation:
Project Role:
Relevant Qualifications:

4.2 **Project Work Plan:** *List the key project tasks and estimated timeframes for completion (project schedule). Project management, project meetings (kick-off, mid-level, and wrap-up meetings with key stakeholders and a representative from NHDES), permits needed and reporting (quarterly project status reports and a final project report). All tasks should be listed as separate and distinct items, in accordance with the format below, in the proposed work plan.*

b) Task #:
Title:
Description:
Timeframe:

4.3 **Project Deliverables:** *List the key project deliverables, in accordance with the format below, specific to the project. Examples of project deliverables mayinclude technical reports, watershed/dam failure models, Emergency Action Plans, conceptual design plans, final engineering designs, operation and maintenance plans, etc.*

c) Deliverable #:
Description:

Section 5: Project Budget Detail

The amount of funding requested for any project should reflect the scope and needs of the proposed project and must not exceed $1,000,000 for any qualifying dam. Total project cost may exceed $1,000,000 per project, however, a maximum of $1,000,000 will be reimbursed. NHDES will not reimburse work completed prior to the grant approval. Activities associated with typical upkeep and maintenance activities, or other work not directly associated with planning or executing work related to compliance with current dam safety regulations, are not eligible.

5.1 **Total Project Budget:** *Enter the total amount of grant funds requested and the total amount of other contributions (if any).*

a) Total Grant Funds Requested:
Other Contributions
(optional):

Source of Other Contributions (if applicable):

Total Project Budget:

5.2 **Budget by Task:** *Provide a breakdown of grant funds, in accordance with the format below, requested for each proposed task detailed in Section 4.2.*

b) Task #:
Grant Funds Requested:

5.3 **Budget by Project Partner (if applicable):** *Provide a breakdown of grant funds requested for each project team partner organization/subcontractor, including the lead applicant.*

c) Project Partner/Subcontractor Funded by the Grant:
Project Partner/Subcontractor Grant Funds Requested:

Section 6: Supporting Documentation*

6.1 **Attachments:** *Upload maps, photos, or other documents relevant to the proposed project.*

*Please note that NHDES does not consider attachments confidential, and attachments marked as confidential will not be accepted and will delay processing.

G. Evaluation Criteria

Eligible applications will be reviewed, evaluated and scored based on the information provided in the application in accordance with the following criteria and point values. In addition, NHDES may consider additional information in its files pertinent to each dam.

- Population at Risk based on the number of habitable structures identified within the inundation area identified in the NHDES-approved Emergency Action Plan.
- The amount of infrastructure that would be damaged if the dam were to fail, as measured by the number of town roads, state roads and interstate highways that would be overtopped identified in the NHDES-approved Emergency Action Plan.
- The benefits lost from the lost impoundment due to dam failure.
- The likelihood of failure as measured by the percentage of the design flood that the dam can safely pass.
- The ability of the applicant to obligate the grant funds by December 31, 2024, and fully expend them by December 31, 2026.
- The extent to which the project will result in removing the dam from the list of municipally owned dams in Poor Condition.

1. Population at Risk based on the **number of habitable structures** identified within the inundation area, as identified in the NHDES-approved Emergency Action Plan using the 100-year plus breach case (choose one).

0-25	**5**
26-50	**10**
51-75	**15**
76-100	**20**
100+	**25**

2. The amount of infrastructure that would be damaged if the dam were to fail, as measured by the **number of town roads, state routes and interstate highways that would be overtopped,** as identified in the NHDES-approved Emergency Action Plan using the 100-year plus breach case (choose each category that applies, multiplied by the number of occurrences).

Number of town/city-maintained roadways overtopped	**5/ea**
Number of state-maintained routes overtopped	**15/ea**
Number of interstate highways overtopped	**25/ea**

3. The benefits lost from the loss of the impoundment due to dam failure in millions of dollars, as determined by the **impoundment surface area at normal pool and applying a $9,090 loss (annual) per acre,** and in accordance with the New Hampshire Lake Association's 2003 Phase II Report on the Economic Value of New Hampshire's Surface Waters (choose one).

$0-$1 million	**5**
$1-S2 million	**10**
$2-$3 million	**15**
$3-$4 million	**20**
$4 million +	**25**

4. The likelihood of failure as measured by the **percentage of the design flood that the dam can safely pass before dam overtopping occurs**, without performing manual operations (choose one).

Passes less than 25% of design event before overtopping	**50**
Passes 26-50% of design event before overtopping	**40**
Passes 51-75% of design event before overtopping	**30**
Passes 76-100% of design event before overtopping	**20**
Passes design event with less than 1' of freeboard	**10**
Passes design event with 1' of freeboard or more	**0**

5. The **ability of the applicant to obligate the grant funds by December 31, 2024, and fully expend them by December 31, 2026** (choose one in each category).

Date by which all grant funds will be obligated:

December 31, 2024	**0**
June 30, 2024	**5**
December 31, 2023	**10**
June 30, 2023	**15**

Date by which all grant funds will be expended:

December 31, 2026	**0**
June 30, 2026	**5**
December 31, 2025	**10**
June 30, 2025	**15**

6. The extent to which the project will result in removing the dam from the list of municipally owned dams in Poor condition (choose all that apply).

At the conclusion of the project, the dam will be in compliance with the following state dam safety requirements. Specifically:

Will meet the discharge requirement assigned to it (passes 2.5 times the 100-year inflow or the assigned inflow design event) without manual operations and with at least one foot of remaining freeboard). 25

Will not have any known structural/stability concerns, or other significant deficiencies that have not been assessed by a qualified engineer. 15

Will have an updated/fully functional Emergency Action Plan in place. This includes a plan that has been reviewed and approved by NHDES, and that has been distributed to all EAP holders and tested though the E911 system. 15

Will have an updated/detailed Operation, Maintenance and Response form in place. This includes a form that has been reviewed and approved by NHDES. 10

H. Terms and Conditions

NHDES does not consider application information confidential, and any information provided within the application may become publicly available. NHDES reserves the right to reject any or all of the applications and to negotiate the scopes of work, timeframes and requested grant amounts. Selected grant recipients will be notified in writing and must enter into a Grant Agreement with NHDES to receive funds. Submittal of an application does not commit NHDES to award a grant or pay any costs incurred during the preparation of the application. All awards are subject to Governor and Executive Council approval. Projects may begin only after receiving Governor and Executive Council approval.

I. Dam Rehabilitation/Removal Grant Program Contact

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