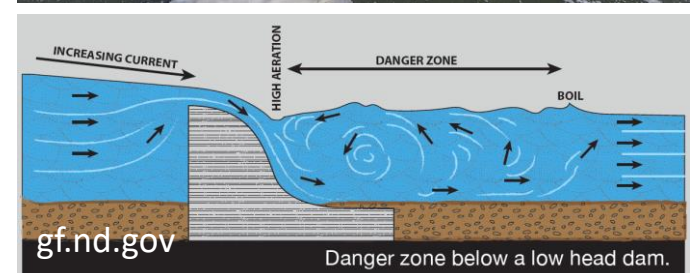


# National Inventory of Low-Head Dams

October 26, 2023

# Background

- Low-head dams are not regulated by any public agency
- Estimated 2.4 million in the U.S.
- Majority are less than 6-feet tall
- Various purposes: mill dams; create lakes, ponds, and swimming holes
- Hydrological and ecological challenges: fish passage, altering habitat, alteration of sediment loads



# Issues / Concerns

- Majority of structures are over 50 years old
- Lack of regulation results in lack of maintenance
- Potential for increased damage from changing climate
- No hazard rating
- Potential for failures
- Boating and swimming accidents
- Unseen Hazards for recreational users (boaters and fishermen)
- **No national inventory exists for these small dams**

# WRDA Authorization

WRDA 2022

SEC. 15. NATIONAL LOW-HEAD DAM INVENTORY.

(a) Definitions.--In this section:

(1) Inventory.--The term `inventory' means the national low-head dam inventory developed under subsection (b)(1).

(2) Low-head dam.--The term `low-head dam' means a river-wide dam that generally spans a stream channel, blocking the waterway and creating a backup of water behind the dam, with a drop off over the wall of not less than 6 inches and not more than 25 feet.

(3) Secretary.--The term `Secretary' means the Secretary of the Army.

(b) National Low-head Dam Inventory.--

(1) In general.--Not later than 18 months after the date of enactment of this section, the Secretary, in consultation with the heads of appropriate Federal and State agencies, shall--

(A) develop an inventory of low-head dams in the United States that includes--

(i) the location, ownership, description, current use, condition, height, and length of each low-head dam;

(ii) any information on public safety conditions at each low-head dam;

(iii) public safety information on the dangers of low-head dams;

(iv) a directory of financial and technical assistance resources available to reduce safety hazards and fish passage barriers at low-head dams; and

(v) any other relevant information concerning low-head dams; and

(B) submit the inventory to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

(2) Data.--In carrying out this subsection, the Secretary shall--

(A) coordinate with Federal and State agencies and other relevant entities; and

(B) use data provided to the Secretary by those agencies.

(3) Updates.--The Secretary, in consultation with appropriate Federal and State agencies, shall maintain and periodically publish updates to the inventory.

(c) Authorization of Appropriations.--There is authorized to be appropriated to the Secretary to carry out this section \$30,000,000.

(d) Clarification.--Nothing in this section provides authority to the Secretary to carry out an activity, with respect to a low-head dam, that is not explicitly authorized under this section.

# Appropriations

Calendar No. 145

118TH CONGRESS  
1ST SESSION

**S. 2443**

[Report No. 118-72]

Making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2024, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

JULY 20, 2023

Mrs. FEINSTEIN, from the Committee on Appropriations, reported the following original bill; which was read twice and placed on the calendar

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## A BILL

Making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2024, and for other purposes.

### S.2443 - Energy and Water Development and Related Agencies Appropriations Act, 2024

118th Congress (2023-2024) | [Get alerts](#)

BILL Hide Overview ✕

Sponsor: [Sen. Feinstein, Dianne \[D-CA\]](#) (Introduced 07/20/2023)

Committees: Senate - Appropriations

Committee Reports: [S. Rept. 118-72](#)

Latest Action: Senate - 07/20/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 145. ([All Actions](#))

Tracker: ●

Introduced > Passed Senate > Passed House > To President > Became Law

#### WATER INFRASTRUCTURE FINANCE AND INNOVATION PROGRAM ACCOUNT

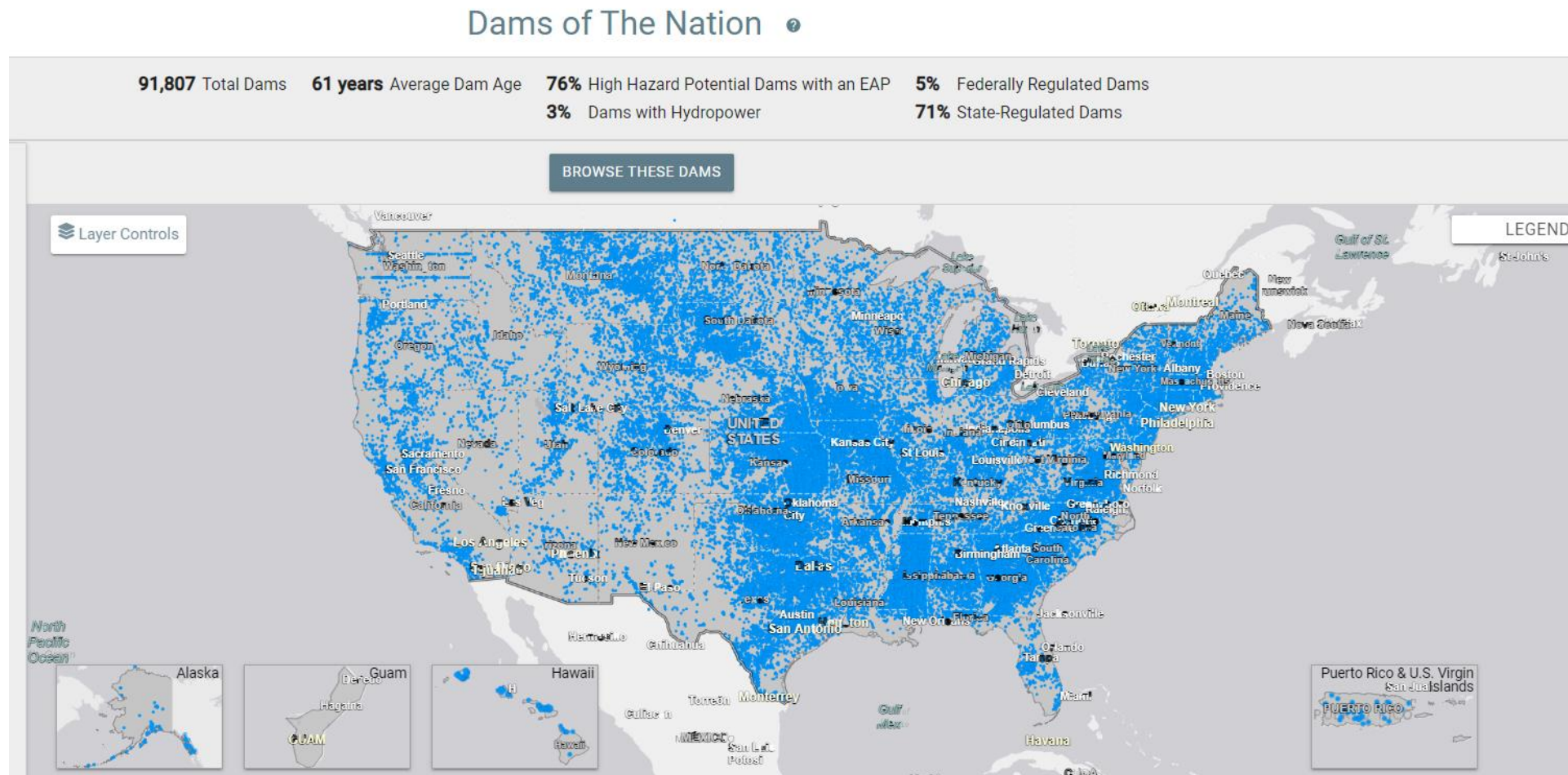
For the cost of direct loans and for the cost of guaranteed loans, as authorized by the Water Infrastructure Finance and Innovation Act of 2014, \$2,200,000, to remain available until expended, for safety projects to maintain, upgrade, and repair dams identified in the National Inventory of Dams with a primary owner type of state, local government, public utility, or private: Provided, That no project may be funded with amounts provided under this heading for a dam that is identified as jointly owned in the National Inventory of Dams and where one of those joint owners is the Federal Government: Provided further, That amounts made available under this heading in this Act shall also be available for projects to construct, maintain, upgrade, and repair levees and ancillary features with a primary owner type of state, municipal, county, private, or other non-Federal entity: Provided further, That no project may be funded with amounts provided under this heading for a levee unless the Secretary has certified in advance, in writing, that the levee is not owned, in whole or in part, by the Federal Government: Provided further, That such costs, including the cost of modifying such loans, shall be as defined in section 502 of the Congressional Budget Act of 1974: Provided further, That these funds are available to subsidize gross obligations for the principal amount of direct loans, including capitalized interest, and total loan principal, including capitalized interest, any part of which is to be guaranteed, not to exceed \$440,000,000

# Purpose

- Investigate development of a database identical to the National Inventory of Dams, focusing on low-head dams
- Identify and evaluate the hazards of low-head dams to the environment and public
- Quantify and locate data on low-head dams
- Capture information for decision makers to assess risk drivers
- Develop and plan to prioritize and mitigate risks of low-head dams



# Existing Framework – National Inventory of Dams



<https://www.fema.gov/emergency-managers/risk-management/dam-safety/national-inventory-dams>

# Approach

- Develop a National Inventory of Low-Dams for the United States and Territories
- Connect with ASCE to expand current National Inventory of Low Head Dams
- Tap into the existing grass roots network at each land grant university Water Research Institutes across the United States and territories to locate and identify
- Utilize the existing national FEMA Dam Safety Program and other state and professional organizations to disseminate the data collection
- Use existing modern technologies (APPS, LiDAR imaging, Drones, AI) to facilitate rapid data collection



# Strategy

Individual Water Research Institutes are well-suited to:

- provide a scientific methodology for gathering information from various sources (i.e. a survey or phone app to collect information regarding the location and photos of low-head dams);
- engage with the local community, state agencies, non-profit organizations, and others to collect an inventory of low-head dams; and
- interface with USACE on the transfer of inventory to the USACE database platform (like what USACE uses for their National Dam Inventory).

# Benefits to NIWR

- we would have a COLLECTIVE project throughout our Institutes;
- partnering USGS with USACE;
- developing the framework for future National-scale opportunities; and
- position our institutes to serve as a pass-through (less admin costs) for future remediation work/scientific studies to be funded after the inventory is complete.

Questions?

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