

Identifying and Evaluating Dams for Dam Removal

National Dam Safety Program Technical Seminar | 2024

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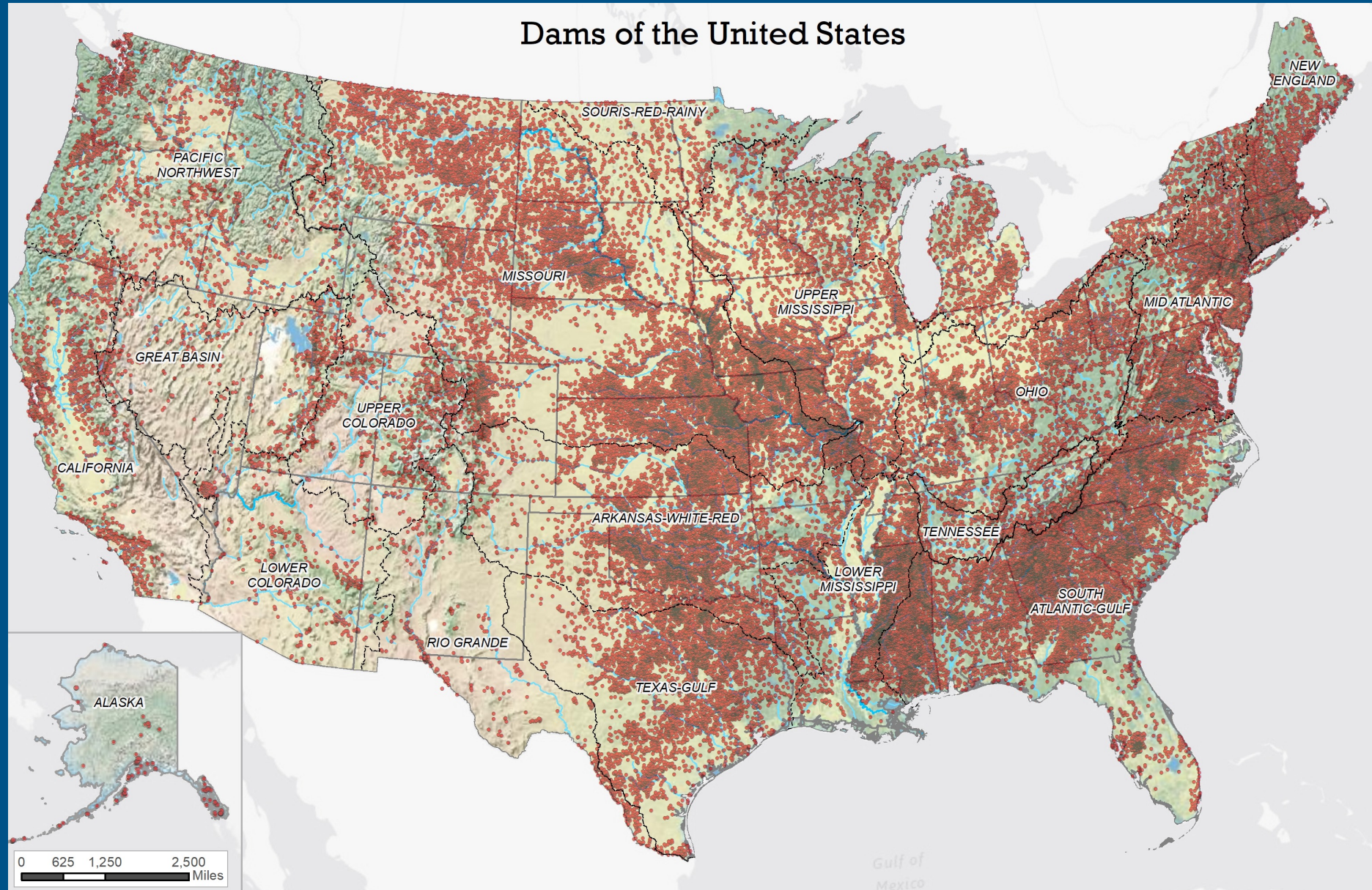
- American Rivers restores damaged rivers, protects wild rivers, and conserves clean water for people and nature
- American Rivers has been removing dams for 25 years and are subject matter experts, training state, federal, and nonprofit partners in dam removal practice

Overview

- State of Dams in the U.S.
- Dam Removal Decision Making
- Scientific and Engineering Considerations
- Funding Dam Removal
- Dam Removal as Dam Safety

1. State of Dams in the U.S.

- There are over 91,000 dams in the National Inventory of Dams.
- Over 500,000 dams are documented across the nation.



2. State of Dams in the U.S.

- Inadequately maintained aging dams are becoming a threat to public safety
- The average dam is 61 years old
- 1,243 dam failures or emergencies have occurred in the U.S., most in the past 20 years



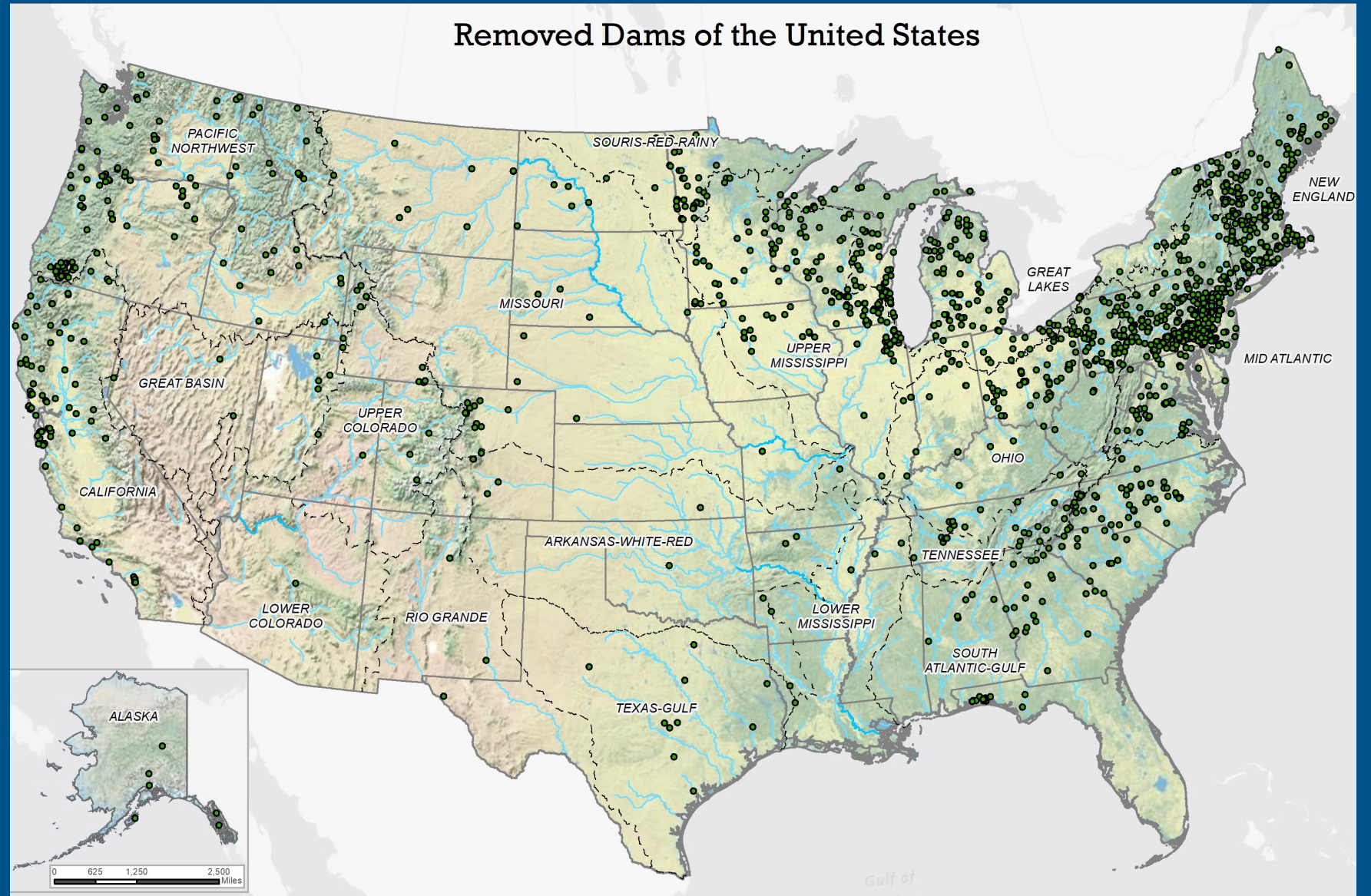
3. State of Dams in the U.S.

- More than 1,400 people have died in the hydraulics created by low-head dams
- Risk posed by hydraulics is not reflected in hazard classification
- The U.S. Army Corps of Engineers is authorized to complete a national inventory of low-head dams



State of Dam Removal in the U.S.

- 2,025 dams have been removed as of 2022
- Majority have been in the past 20 years



Dam Removal Decision Making – DRIVERS

- Dam safety
- Owner liability
- Ecological restoration
- Fish passage
- Environmental justice

Most common dam removal equation
= a dam owner with an uneconomical
dam + external funding for removal



Dam Removal Decision Making – PRIORITIZATION TOOLS

- Tools are available to help in identifying projects:
 - National Aquatic Barrier Inventory and Prioritization Tool
 - National Inventory of Dams

National Aquatic Barrier Inventory & Prioritization Tool

Explore regions | Summarize | Prioritize

Download | FAQ

← modify area of interest

Filter dams

[OPTIONAL] Use the filters below to select the dams that meet your needs. Click on a bar to select dams with that value. Show more ...

- ▶ **Social Benefits**
2 filters available
- ▶ **Conservation benefits**
3 filters available
- ▶ **Regulatory**
3 filters available
- ▶ **Dam characteristics**
7 filters available
- ▶ **Aquatic network characteristics**
3 filters available
- ▶ **Marine connectivity**
4 filters available

selected: 20,963 dams

» Prioritize selected barriers

Find a barrier

Legend

Southeast Aquatic Resources Partnership | Contact Us | Terms of Use | Data version: 3.3.0 (10/20/2023) | Created by Astute Spruce, LLC



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Scientific and Engineering Considerations – GENERAL CONSIDERATIONS

- Data collection/surveying
- Hydrology/hydraulics
- Sediment management
- Protecting infrastructure
- Species protection
- Site-specific issues



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Scientific and Engineering Considerations – SPECIAL CONSIDERATIONS

- There are 3 potential long-term impacts if not managed well:
 - Contaminants
 - T&E Species
 - Infrastructure



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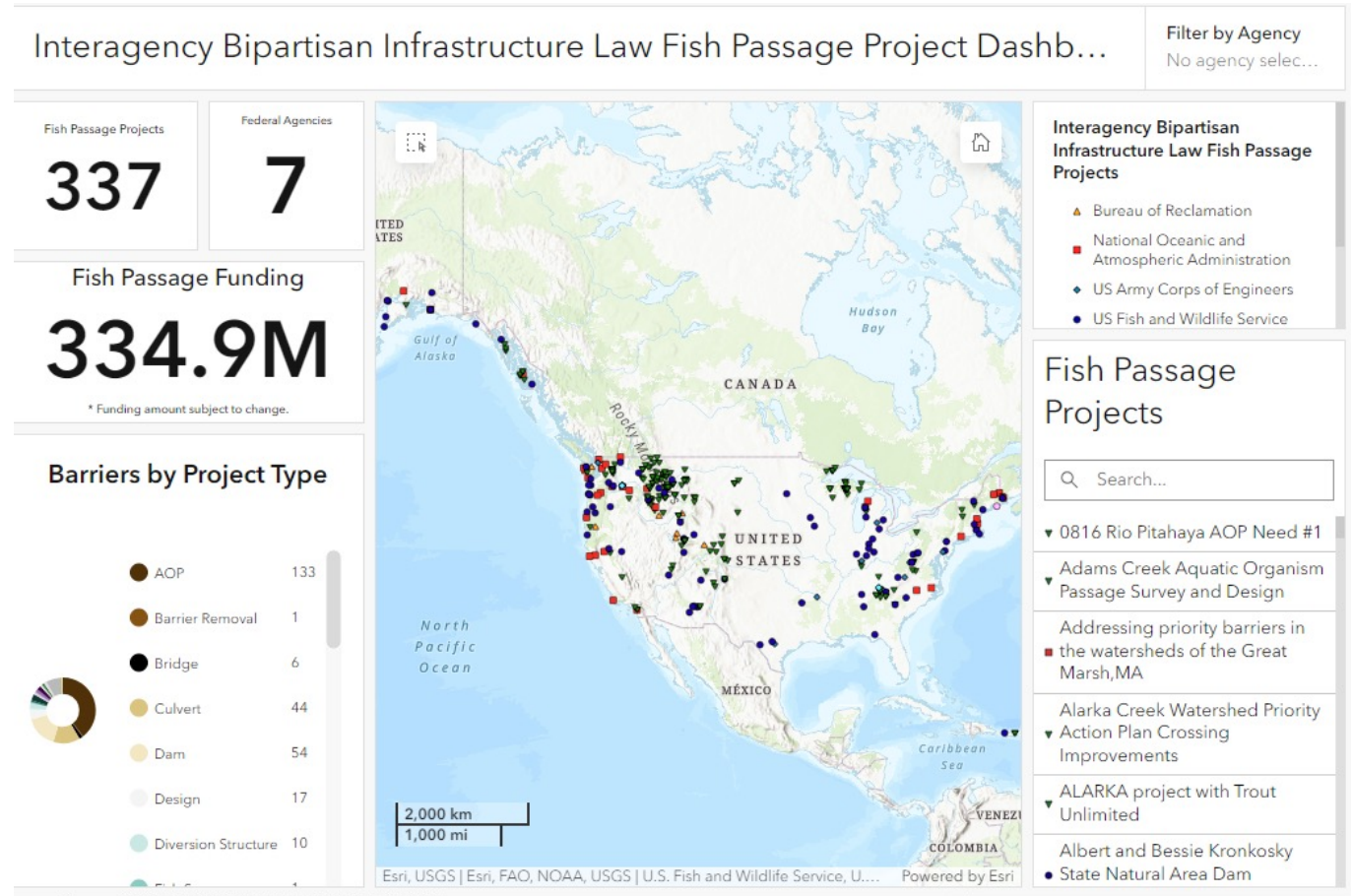
Funding Dam Removal Projects

- Bipartisan Infrastructure Law Funds:

- NOAA
- FWS
- USACE
- FEMA

- Other Sources:

- Dam Owner
- State Funding
- National Fish Habitat Partnerships
- Private Sources



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Dam Removal as Dam Safety – PROJECT OUTCOMES

- Dam removal is a permanent dam safety solution:
 - Improves public safety
 - Reduces liability for dam owners
 - Reduces flood risk
 - Improves water quality
 - Provides long-term river health restoration



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Dam Removal as Dam Safety – DAM SAFETY EXPERT INVOLVEMENT

Many dam removals derive from a dam owner looking to remove an unsafe structure

Dam safety experts:

- State Dam Safety Offices
- State and Federal Agencies that Own Dams
- State and Federal Agencies that Regulate Dams
- Consulting Firms



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Discussion Topics

1. How has your dam safety agency viewed and participated in dam removal projects in your state?
2. What tools/data/support would increase the capacity and involvement of your agency in dam removals?
3. When a dam owner wants to get out from under an unsafe and/or uneconomic dam, how does your agency currently advise them?



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Thank You

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