



# Fish Passage



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NOAA Restoration Center  
Fish Passage Workgroup Chair*

*Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...*

### *Goal: Fish Passage*

#### Outcome:

Continually increase available habitat to support sustainable migratory fish populations in Chesapeake Bay freshwater rivers and streams. By 2025, restore historical fish migratory routes by opening 1,000 additional stream miles, with restoration success indicated by the consistent presence of alewife, blueback herring, American shad, hickory shad, American eel and brook trout, to be monitored in accordance with available agency resources and collaboratively developed methods.



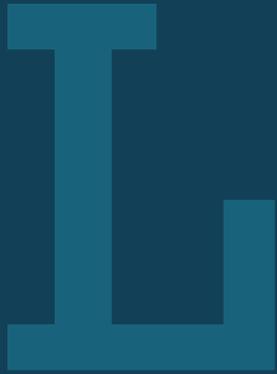


## How You Can Help



- Outcome met in 2016!!!!
- Continuing with rate of 132 miles every 2 years
- Largest dam removal in state of Maryland ~ 30 foot dam with release of 320,000 CY of sediment
- New projects being planned watershed-wide
- Functional, highly efficient workgroup





# Learn

*There are over 165,000 road-stream crossings in the Chesapeake Bay. Road –stream crossings need to be addressed and represent a scale much larger in number than dam removals. A different approach is needed*

*Interest by dam owners is still an issue*



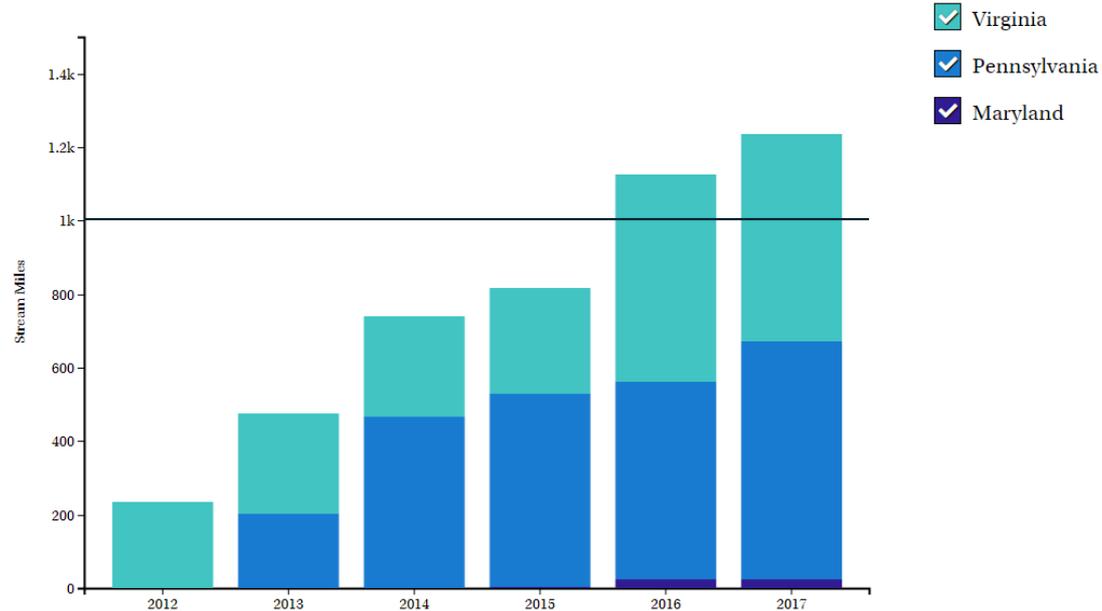
## Successes and Challenges

- Interest by dam owners is still a major challenge
- Incentives for removal are needed to gain interest in dam removal - mitigation credit one option
- Culvert assessment and retrofit design and implementation guidance



## What is our Expected and Actual Progress?

Stream Miles Opened to Fish Passage (Cumulative) (2012-2017)



Aquatic Barrier Prioritization X

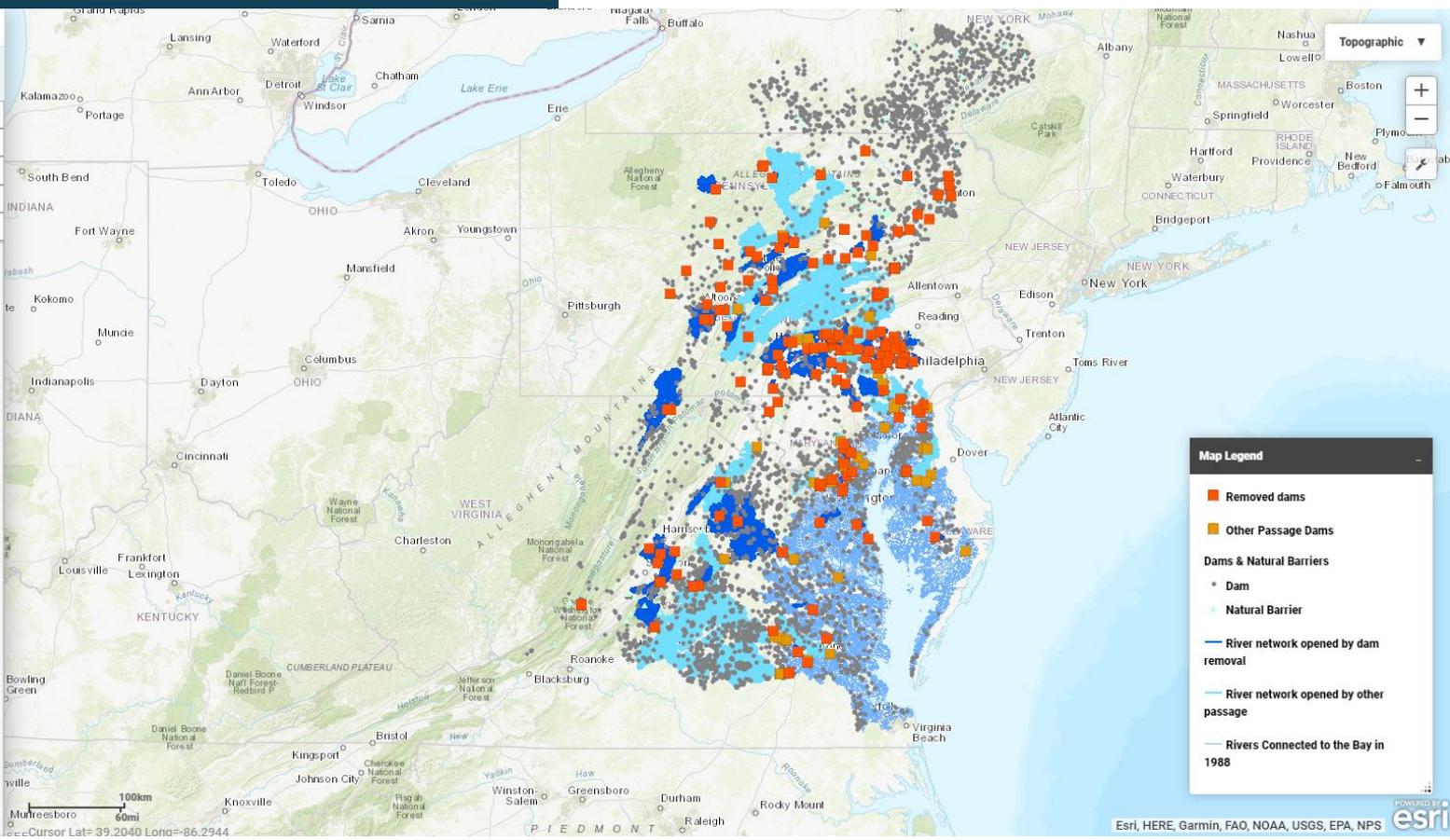
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- ▶ Explore the Consensus Diadromous Results
- ▶ Run a Custom Analysis
- ▶ Custom Analysis Results
- ▶ Upstream Network for a Clicked Point
- ▼ Track Miles Opened Over Time

Use the time slider to see how upstream river miles have been opened since 1988.



Cumulative dam removal miles: 10,596 Miles  
Cumulative other passage miles: 19,244 Miles



**Map Legend**

- Removed dams
- Other Passage Dams
- Dams & Natural Barriers
  - Dam
  - Natural Barrier
- River network opened by dam removal
- River network opened by other passage
- Rivers Connected to the Bay in 1988



## On the Horizon

- Given the focus on increasing storm events and higher river flows, addressing fish passage at road-stream crossings at the same time is a common sense approach.
- Under other policy related developments, U.S. Army Corps of Engineers recently released guidance on mitigation crediting for dam removals and other river obstructions. State of Maryland developing draft mitigation calculator

A large, stylized, blue letter 'A' is centered on a dark blue background. The letter has a thick, blocky font with a slight shadow effect. The background is divided into horizontal bands of color: a dark blue band at the top, a medium blue band in the middle, and a light green band at the bottom.

# Adapt

*How does all of this impact our work?*



**Based on what we  
learned, we plan to ...**

- Opportunities to restore fish passage through the retrofitting or removal of culverts—in addition to dam removal—are being investigated and incorporated into our two year action plan.



# Help

*How can the Management Board  
lead the Program to adapt?*



## Help Needed

- Bring awareness to dam safety programs that dam removal is a viable option to consider along with the usual “repair or replace” options under dam safety regulations and planning.



# Discussion