

Anacostia Watershed Restoration, Prince George's County, Maryland

Sponsor:
Prince George's County Department of the Environment



Study Purpose

The purpose of the recommended plan is to *restore ecological function, structure, and health* in selected stream reaches in the Anacostia River watershed in Prince George's County. Restoration is needed because human alteration of the Anacostia River watershed has resulted in significant degradation of aquatic ecosystems over time.

Study Area	Problems
	<div><div><p>Fish blockage</p></div><div><p>Channelization</p></div><div><p>Bed and bank erosion</p></div><div><p>Homogenous habitat</p></div></div> <div><ul style="list-style-type: none">• Bed and bank erosion• Unstable habitat• Channelization (straightening and widening)• Homogenous habitat conditions• Fish blockages• Lack of connectivity• Loss of non-tidal wetlands & riparian habitat• Decreased anadromous fish populations</div>
Objectives	
<div><div>1. <i>Restore degraded instream physical habitat</i> in both the Northwest and Northeast Branch subwatersheds of the Anacostia River.</div><div>2. <i>Enhance aquatic ecosystem resilience</i> (restore fish passage and connectivity) in both the Northwest and Northeast Branch subwatersheds of the Anacostia River.</div></div>	

Value to the Nation

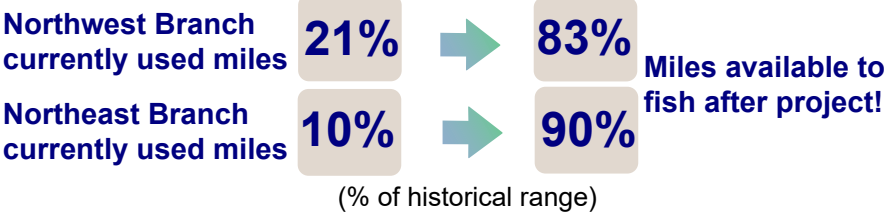
Supports:

- Chesapeake Bay Executive Order
- Chesapeake Bay Program outcomes
- Anacostia Restoration Plan goals
- NOAA River Herring Conservation Plan

- Stream health and function
- Restore historical fish migratory routes (passage)
- Increase the capacity of wetlands
- Increase the capacity of forest buffers

Anadromous fish populations at historic lows

Project restores access to anadromous fish habitat:

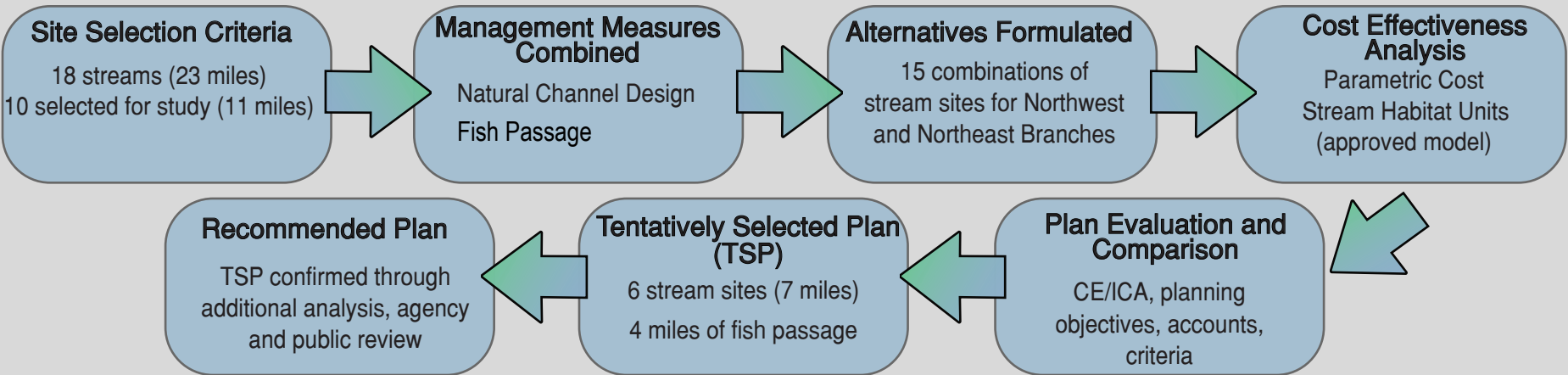


(American shad)

Important fish species:
alewife, blueback herring, American shad, hickory shad, American eel

Healthy habitat ➔ Healthy inhabitants

Plan Formulation



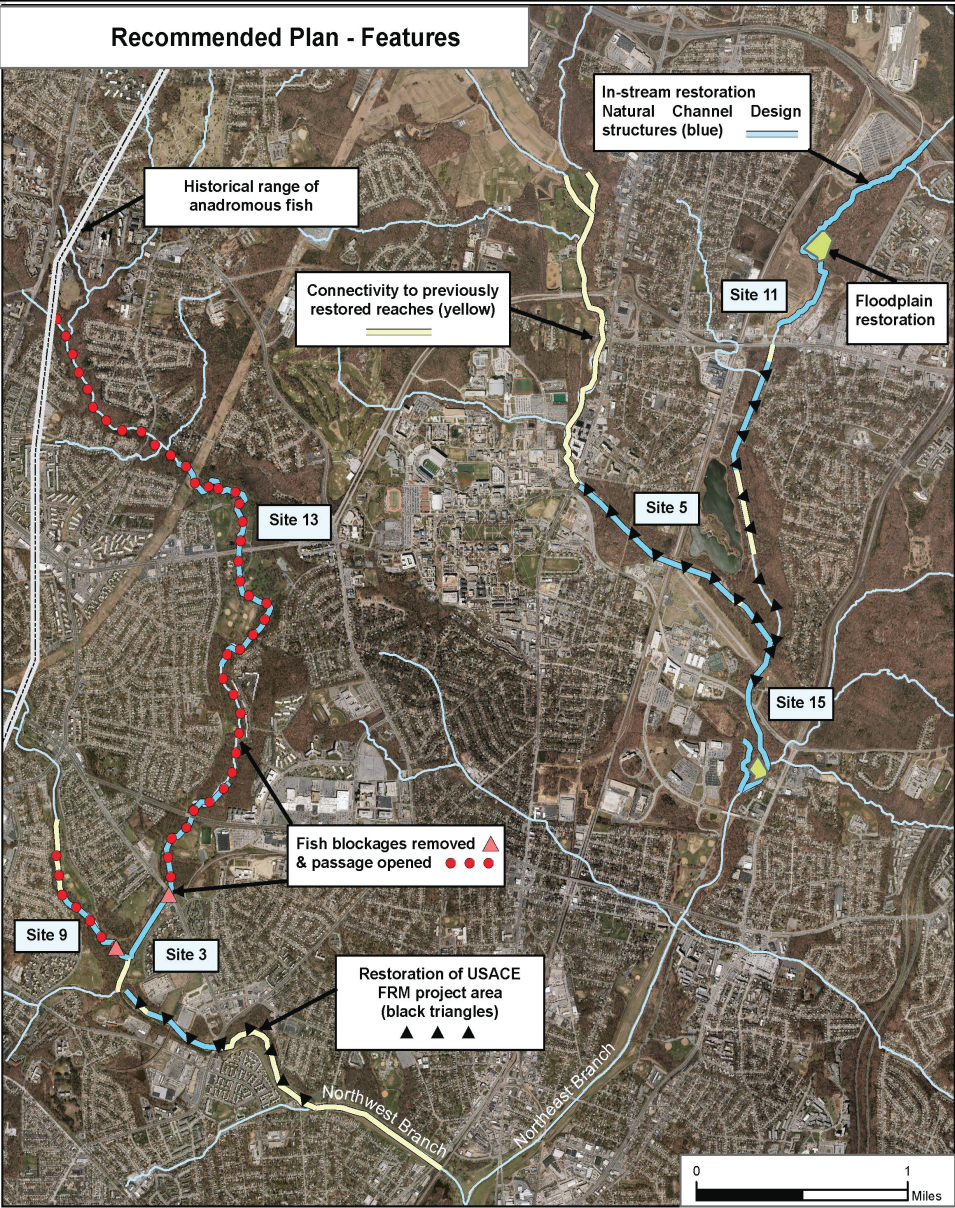
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT





The Recommended Plan

- Restores approximately 7 miles of instream habitat in Northeast and Northwest Branches
- Restores approximately 4 miles of fish passage through blockage removal
- Connects 14 miles of restored habitat and links to 11 miles of higher-quality habitat upstream
- Restores instream habitat at all four sites degraded by a 1970s USACE flood risk management project
- Enhances prior federal investments by incorporating USACE restoration projects (e.g., Paint Branch CAP Section 206, Northwest Branch CAP Section 1135)

Environmental Compliance:

- All coordination complete (Endangered Species Act, U.S. Fish and Wildlife Service Coordination Act Report, Section 106)
- Meets terms & conditions of Nationwide Permit 27
- Supported by state and federal resource agencies



Cost Summary		Plan Features - Example	
Project Total First Cost	\$34,106,000	 <p>J-hook</p>	Paint Branch, CAP 206 (connects to site 5)
Project Total Federal Share (65%)	\$22,169,000		
Project Total Non-Federal Share (35%)	\$11,937,000	 <p>Riparian Plantings</p>	
100% Lands and Damages	\$360,000		
100% Relocations	\$897,000	 <p>Nested cross vanes</p>	
Cash Balance	\$10,680,000		
Investment Cost		 <p>Log vane</p>	
Total Project Construction Costs	\$34,106,000		
Interest During Construction	\$406,000		
Total Investment Costs	\$34,512,000		
Average Annual Costs			
Interest and Amortization	\$1,309,700		
OMRR&R	\$22,000		
Total Average Annual Costs	\$1,331,700		
Average Annual Benefit			
Project Specific Stream Habitat Units*	3.92		
Aggregate Stream Habitat Units	34.35		
Total Average Annual Benefits	38.27		
* Stream habitat units = stream quantity x stream quality			

