ANACOSTIA WATERSHED RESTORATION -MONTGOMERY COUNTY CONTINUING AUTHORITIES PROGRAM SECTION 206

PRINCE GEORGE'S COUNTY

Brief to AWCAC - 9 May 2023

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PROJECT HISTORIES

- Anacostia Restoration Plan completed in 2010 identified over 2,000 aquatic ecosystem restoration projects in Montgomery County, Prince George's County, and the District of Columbia.
- USACE initiated General Investigation Feasibility Studies in 2014 to examine restoration activities in the Anacostia Watershed in Montgomery County and Prince George's County.
- In April of 2015, USACE identified restoration activities in Lamberton, Bel Pre, and Sligo tributaries as the recommendation and moved the project to CAP Section 206 authority as total projects costs were within the study authority cost limit.
 - This required a new cost sharing agreement, and time was lost
- The Prince George's feasibility study was completed in 2018. The project was authorized for Construction in the Water Resources Development Act (WRDA) 2020.
- > The Prince George's project is currently in the Design/Construction phase.





STUDY AREA, MONTGOMERY COUNTY

- Three project locations have been selected through the study process
 - Segment 3 Bel Pre Tributary

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- Segment 5 Lamberton Tributary
- Segment 12 Sligo/Colt Terrace



PROBLEMS

Degraded ecosystem function and health of the Anacostia River, its tributaries, and riparian zone has been historically caused by disruptions of the hydrologic cycle in the study area (Bel Pre, Lamberton, and Sligo tributaries of the Anacostia Watershed) due to human alteration of the natural landscape.

- Channel bank instability within the study area streams (Bel Pre, Lamberton, and Sligo) leads to erosion, bypasses, exposed infrastructure, and sedimentation.
- Floodplain wetlands are dewatered as stream cuts down into floodplain, causing loss of water from below and reduced stream/floodplain interaction for floodplain wetlands.
- Urbanization within the watershed leads to flooding, high stormwater velocities, poor water quality, poor instream habitat, invasive species introduction, and flood plain disconnection.



OBJECTIVES

Planning objectives are summarized in statements that describe the desired results from solving or alleviating problems and/or realizing opportunities.

- 1) Restore in-stream habitat and associated ecosystem function in Bel Pre, Lamberton, and Sligo streams.
- 2) Restore the natural range of resident and migratory fish in Bel Pre, Lamberton, and Sligo streams.
- 3) Re-establish hydrologic connection of the streams to the floodplain to the maximum practicable area along stream restoration reaches.
- Restore floodplain wetlands. Wetlands restoration opportunities exist in Sligo Creek and Bel Pre Tributary where hydric soils are mapped in non-forested areas, but mapped wetlands do not occur, and in abandoned stream channels.





RECOMMENDED PLAN

- Alternative 2a Natural Channel Design for 3 sites at Sligo Creek/Colt Terrace, Lamberton Tributary, and Bel Pre-Tributary
- In coordination with MCDEP, project is to remain within program limit for CAP 206 authority; therefore, project scope will need to be reduced

Site	Length (miles)	Total Project Cost
Sligo Tributary	0.7	\$2,748,000
Lamberton Tributary	1.0	\$2,771,000
Bel Pre Tributary	3.1	\$15,697,000
Total	4.8	\$21,217,000



CONCEPT DESIGNS – SLIGO CREEK/COLT TERRACE TRIBUTARY

- Concept designs developed that include:
 - A combination of grading, rock placement, and using existing bedrock along the existing stream
 - Riffle grade controls, pools, crossvanes and j-hooks are used to stabilize the stream and streambank, and enhance habitat
 - Bank grading and planting is used to improve floodplain connectivity and enhance the riparian habitat
 - Stream raising and re-alignment recommended in some locations
- Project extends for a majority of Sligo and all of Colt Terrace
- Total stream length of **0.7** miles, width of 20 feet









CONCEPT DESIGNS – LAMBERTON TRIBUTARY

- Project extends from Yeatman Terrace to upstream end of WSSC stream stabilization work
- Total stream length of **1.0** miles, width of 15 feet







CONCEPT DESIGNS – BEL PRE TRIBUTARY

- Project extends from start of Bel Pre Neighborhood Park to the confluence with the Northwest Branch of the Anacostia River
- Total stream length of **3.1** miles, width of 50 feet



Baltimore District

STUDY SCHEDULE

Milestone	Current	Civil Works Milestone Code
Feasibility Cost Share Agreement (FCSA) Execution	September 30, 2020	N/A
Tentatively Selected Plan (TSP) Milestone Meeting	February 28, 2023	CW 190
Draft Report Submittal & Start of Agency Technical Review (ATR)	April 24, 2023	CW 150
Start of Public Review Period	July 10, 2023	CW 250
District Engineer Approval of Final Report	September 29, 2023	CW 170

BUDGET

Study is cost-shared 50-percent federal, 50 percent non-Federal. Feasibility study costs of \$675,000.





ANACOSTIA WATERSHED RESTORATION, PRINCE GEORGE'S COUNTY, MARYLAND

MONTGOMERY COUNTY

STUDY AREA

- Anacostia River watershed (subwatershed of \succ the Chesapeake Bay & Potomac River watersheds)
- Prince George's County, Maryland \succ



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RECOMMENDED PLAN



Restoration using natural channel design, including six stream sites:

- > Northwest Branch: 3, 9, 13
- ➢ Northeast Branch: 15, 5, 11

Restores:

- 7 miles of in-stream habitat (orange)
- 4 miles of fish passage (purple dashed)

Improves: Habitat in streams where a USACE FRM project was constructed in 1970s

Connects:

 14 miles of restored habitat (yellow) and 11 miles of higher quality habitat upstream





RECOMMENDED PLAN – BENEFIT TO THE WATERSHED

- Supports the Chesapeake Bay Executive Order and Chesapeake Bay Agreement Goals for fish passage, fish habitat, and stream health.
- Improves habitat in streams where USACE FRM project was constructed in 1970s
- Enhances prior federal investments by connecting to previous USACE restoration projects (e.g. Section 206 on Paint Branch, Section 1135 on Northwest Branch)
- Restores access to historical range for anadromous fish (herring and shad NOAA listed Species of Concern) & reduces fragmentation of habitat:

	Historical Range (mi)	Currently Available (mi, % of historical range)	With Project (mi, % of historical range)
NW Branch	6.2	1.3 (21%)	5.2 (83%)
NE Branch	23.1	2.3 (10%)	20.9 (90%)





RECOMMENDED PLAN FEATURES

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RECOMMENDED PLAN FEATURES



Pre-Restoration



Fish blockage amelioration

Example: Paint Branch CAP 206

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Post-Restoration







QUESTIONS AND COMMENTS







