

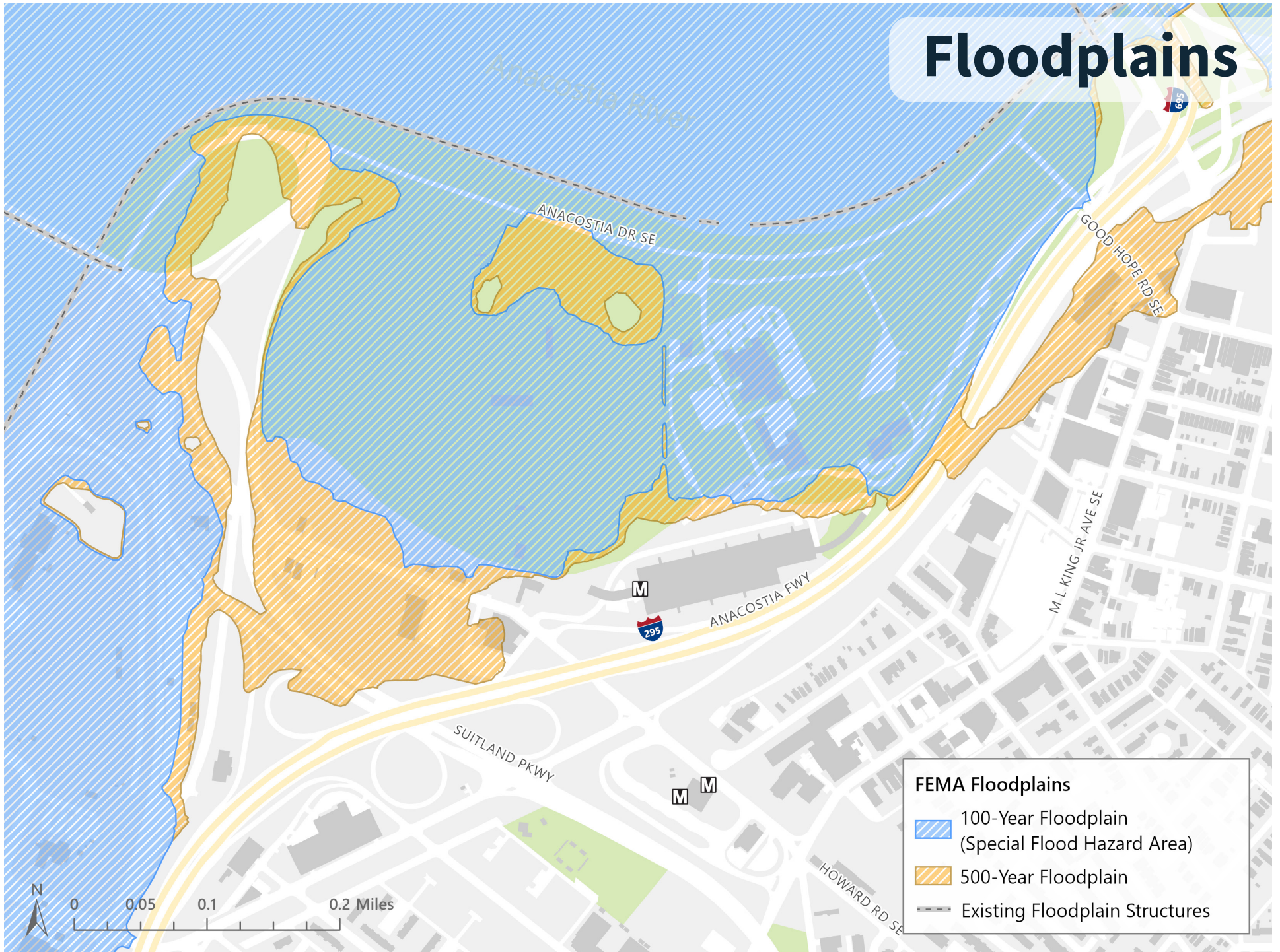
This work sample represents my key contributions to the University of Pennsylvania's Fall 2021 City & Regional Planning graduate studio course focused on urban resilience in Washington, DC.

Studio Project Context

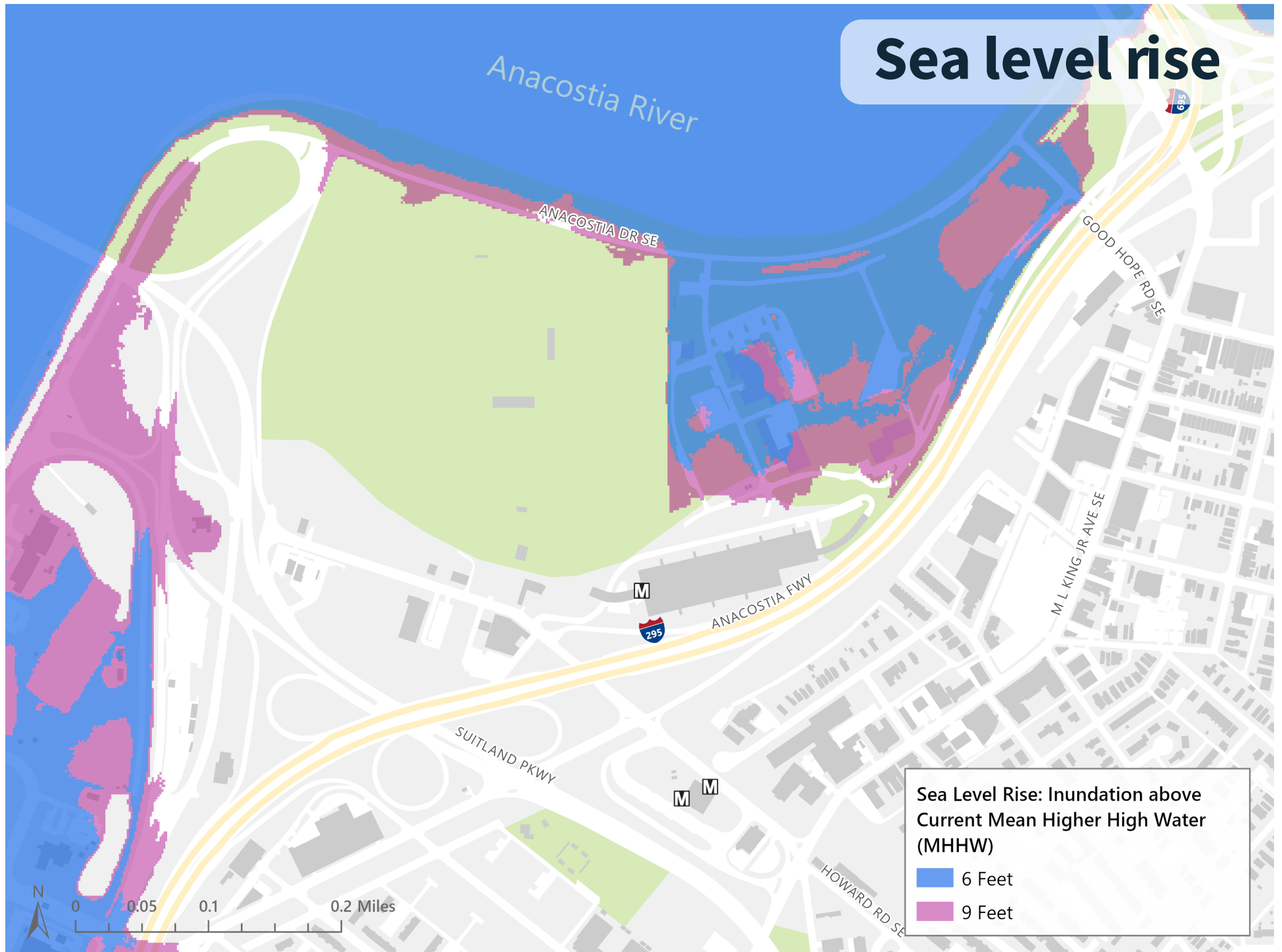
The District of Columbia (DC) developed Resilient DC, a tactical implementation strategy that aligns with other major planning efforts into one coordinated approach to confront the complex challenges of the 21st century. The DC Office of Planning (DCOP) assembled a working group tasked with exploring those strategies, with a focus on Poplar Point in Southeast DC. Poplar Point, a 110-acre site, is located along the tidal Anacostia River and is adjacent to the Historic Anacostia neighborhood. The National Park Service (NPS) currently owns and operates the site, though an ownership transfer to DC is underway.

In collaboration with DCOP, the studio project team envisioned the redevelopment of Poplar Point within the context of the Resilient DC initiative and other planning goals District-wide, as well as the site's history, culture, and challenges. Key systems considered include water management, open space, circulation, and development.

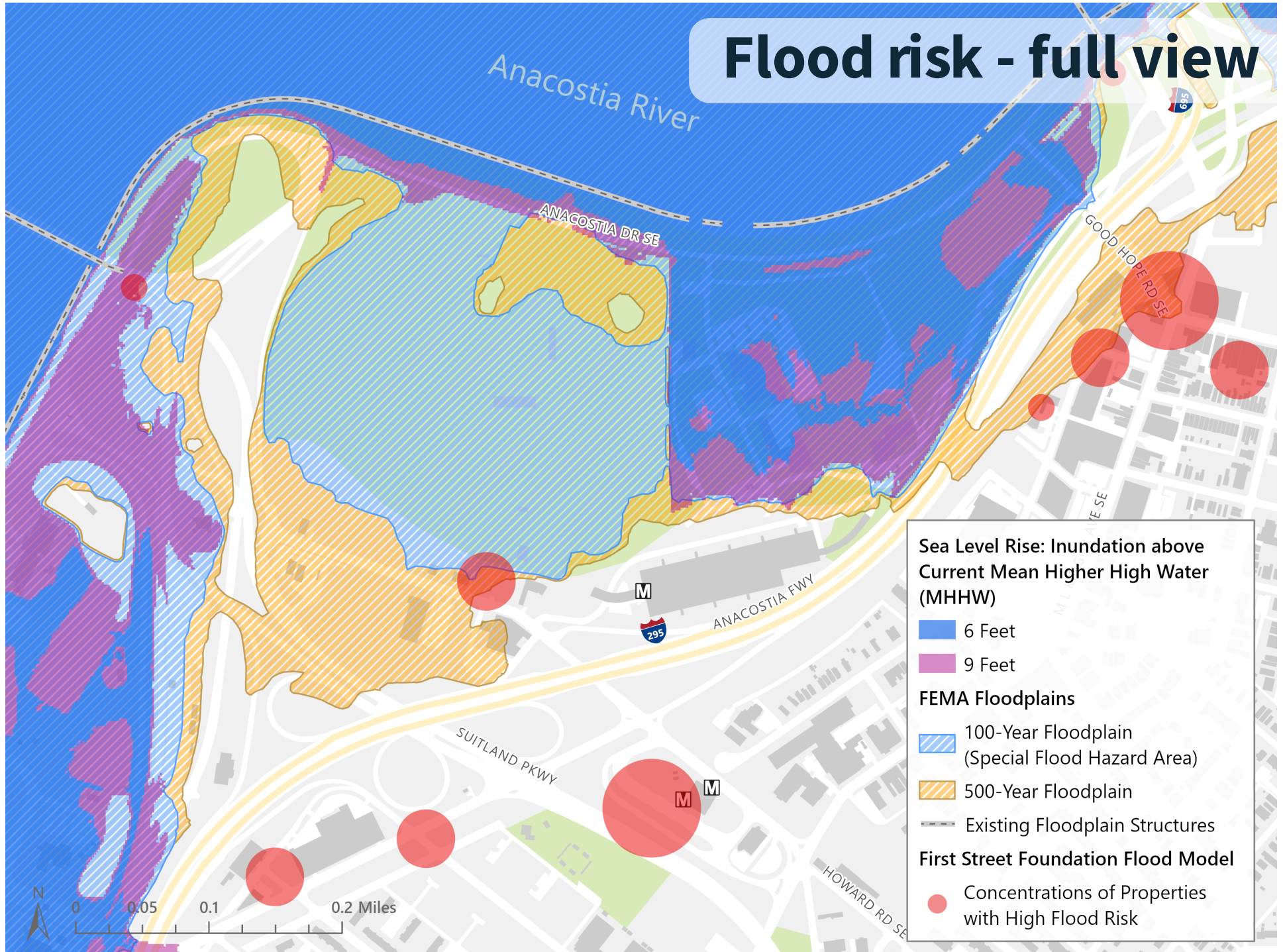
Floodplains



Sea level rise



Flood risk - full view



Please note that the red dots for the First Street Foundation (FSF) data are approximate clusters based on author observation of FSF's open FloodFactor.com map. Larger dots are indicative of areas with several properties at more severe flood risk levels, compared to the smaller dots representing areas with properties at a moderate risk level.

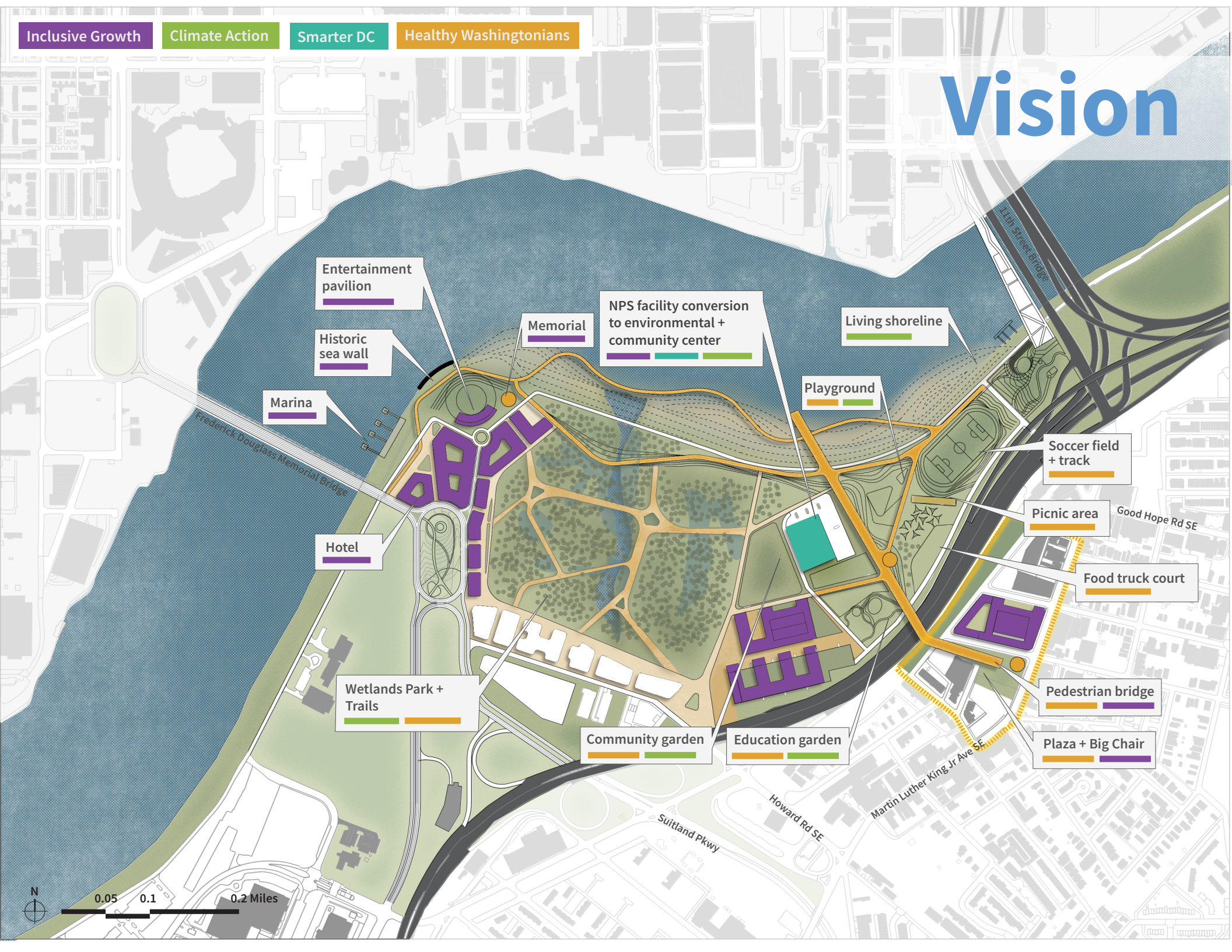
Proposal 2 //

Eco-Cultural District

The Eco-Cultural District proposes a vision for Poplar Point that unlocks the potential of a robust community asset that can adapt to a changing climate. This proposal is rooted in the understanding that about 60 percent of Poplar Point is located within the historical 100-year floodplain and about 80 percent of the site lies within the 500-year floodplain. The proposal also acknowledges that the present-day floodplains likely do not reflect holistic flood risks, and that future changes in climate will bring expanded floodplains, permanent inundation from sea level rise, and more severe extreme heat conditions. The Eco-Cultural District celebrates the community's culture and centers local residents, prioritizes access to waterfront amenities for Southeast DC residents, amplifies the local arts culture, and provides significant parks and recreation space.

In executing this vision, Poplar Point could serve as a model for holistically integrating resilience into planning. This vision aligns with the Climate Ready DC Resilient Design Guidelines by concentrating housing development in low-risk locations on the site, designing recreation spaces that can weather periodic flooding events, and enabling community-driven uses of the site that respond to changes as they come.

Vision



Entertainment pavilion

Historic sea wall

Marina

Hotel

Wetlands Park + Trails

Memorial

NPS facility conversion to environmental + community center

Living shoreline

Playground

Soccer field + track

Picnic area

Food truck court

Pedestrian bridge

Plaza + Big Chair

Community garden

Education garden

0.05 0.1 0.2 Miles



Edin Street Bridge

Frederick Douglass Memorial Bridge

Good Hope Rd SE

Suitland Pkwy

Howard Rd SE

Martin Luther King, Jr Ave SE

Water system

Water system

Eco District

Green + blue roofs

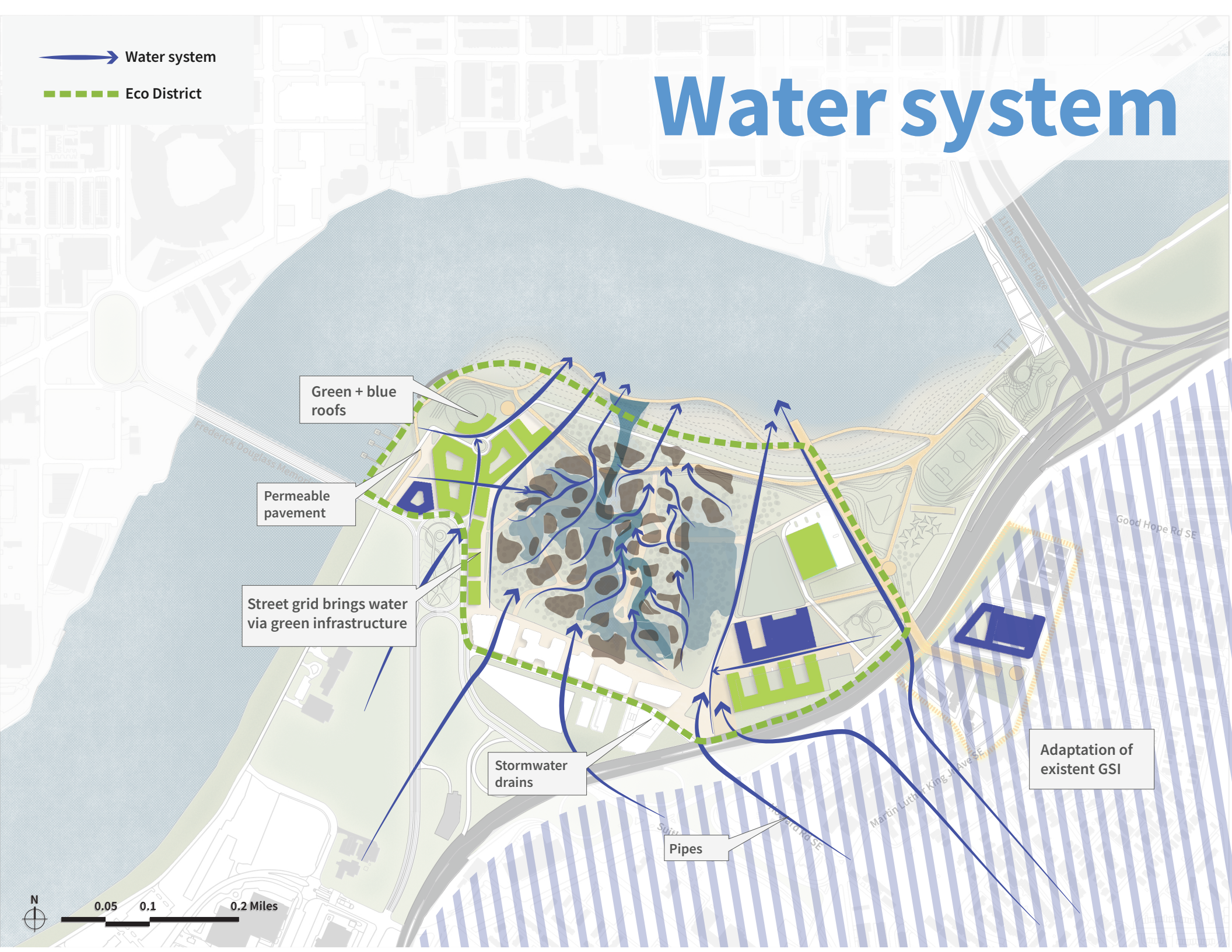
Permeable pavement

Street grid brings water via green infrastructure

Stormwater drains

Pipes

Adaptation of existent GSI



Stormwater Management

Partners

- DOEE
- DC Parks and Recreation
- DC Water

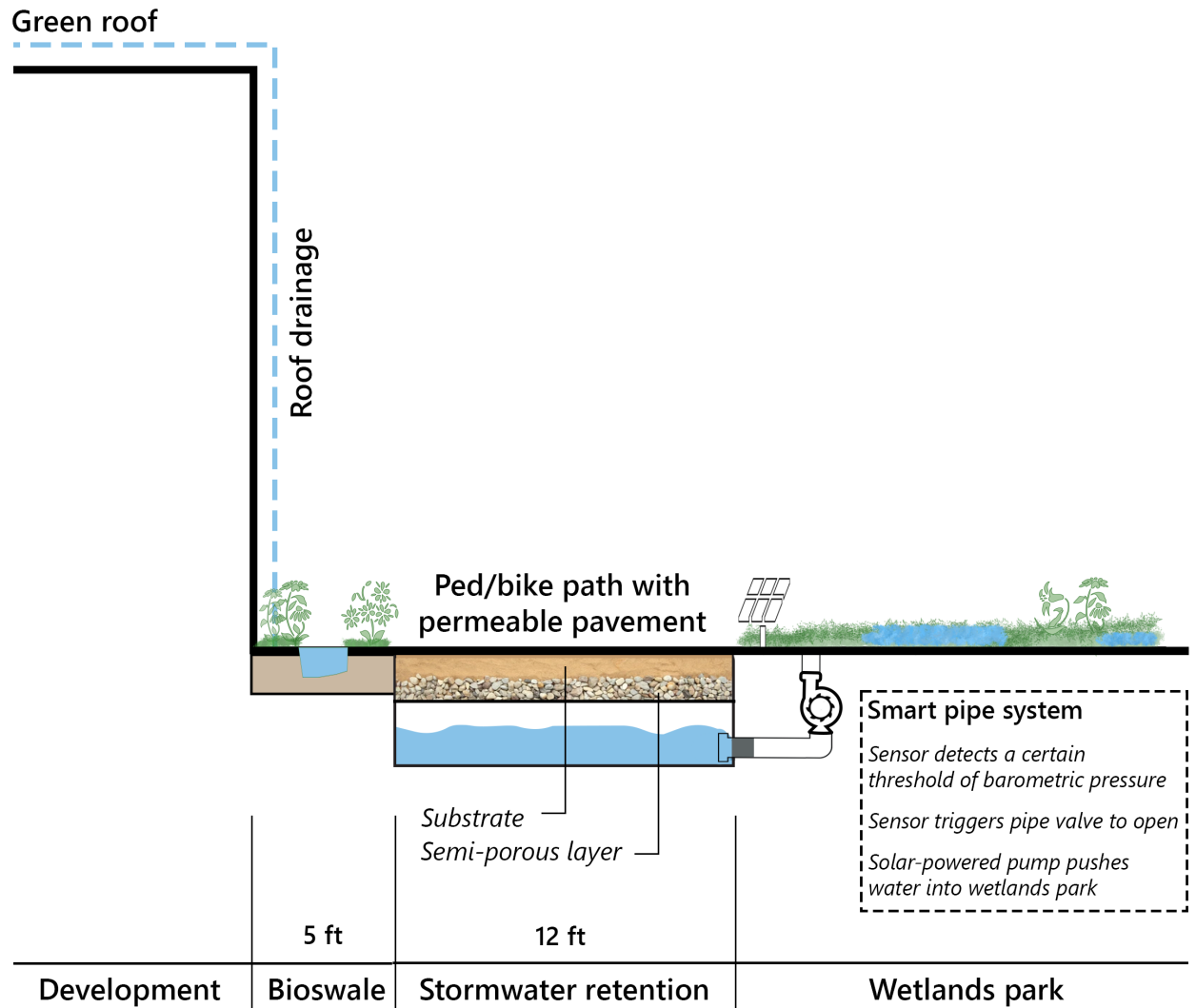
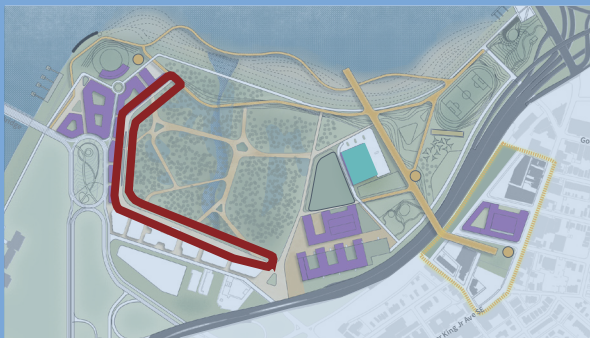
Timeline

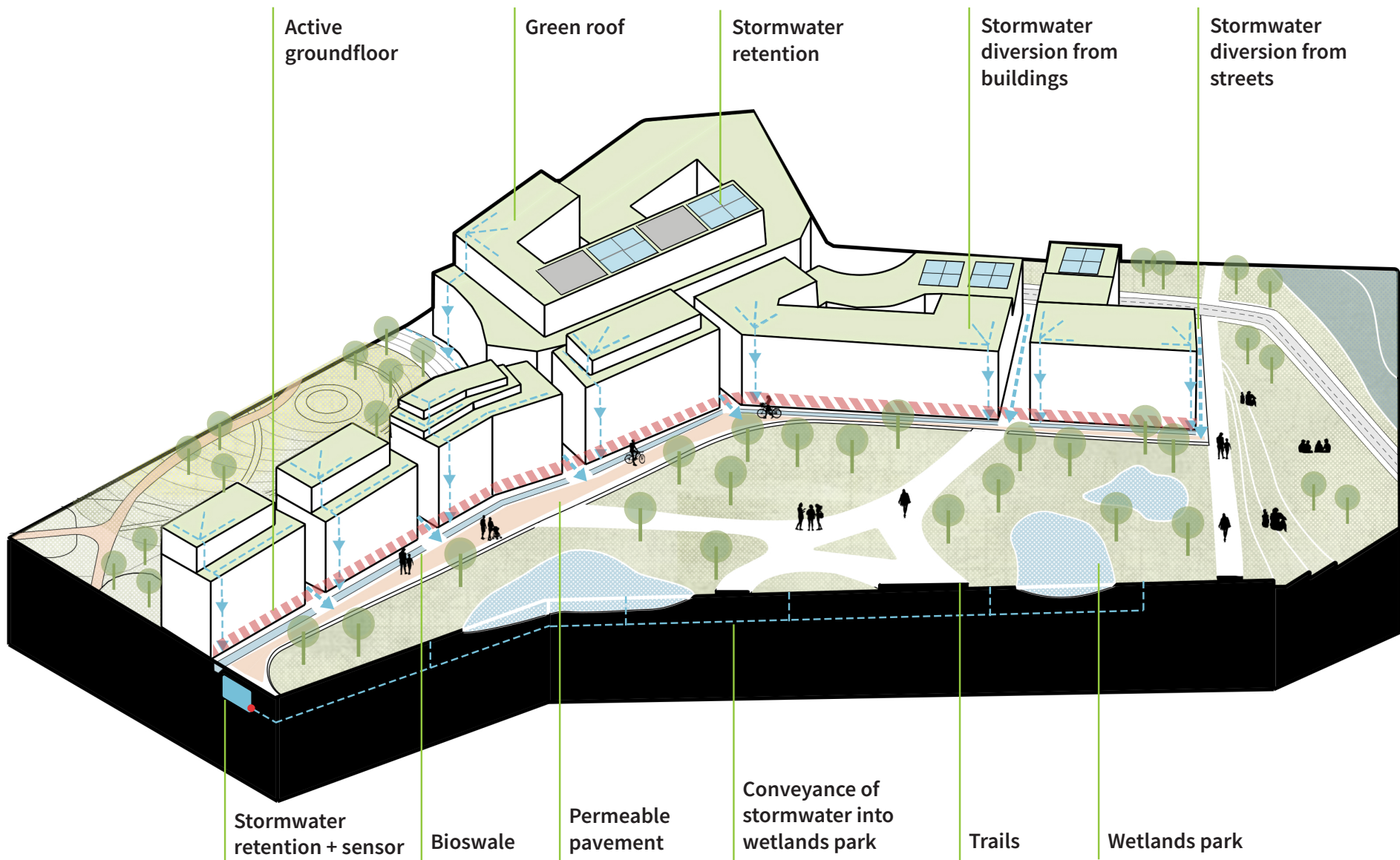


Goals Met



Key Map





Inundation boundary 100 years

Floodplain Simulation



Repurposed
NPS facility

Anacostia



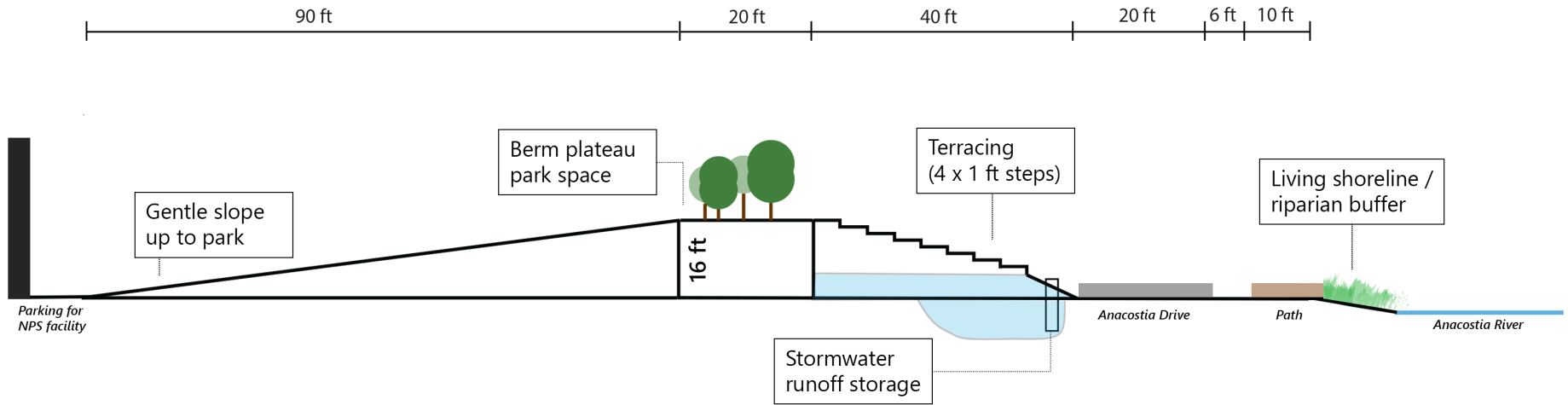
0.05 0.1 0.2 Miles



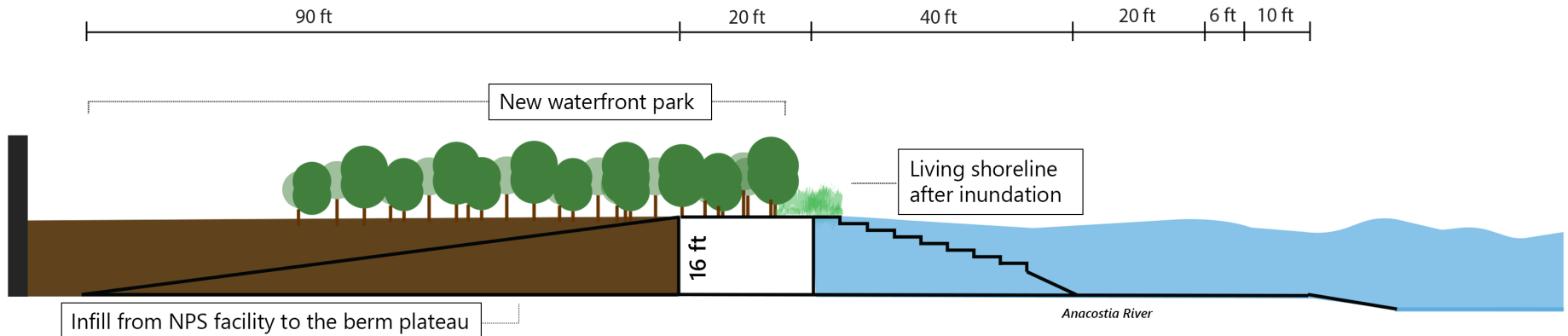
2080: Adaptation Pathways



SHORT TERM



LONG TERM



Earthen Berm

Partners

- DOEE
- USACE
- Anacostia Watershed Society

Timeline



Goals Met



Key Map

