STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE DESIGN PROJECT

Four Sub Watersheds: Hickey Run, Nash Run, Fort Dupont, Pope Branch

Presenter: Jo-Elle Burgard

AGENDA

About the Team → Project Overview

Process → Intermediate Design

Stay Informed → Get Involved

DDOT Project Team

District Department of Transportation

ARCADIS

Project Lead Consultant

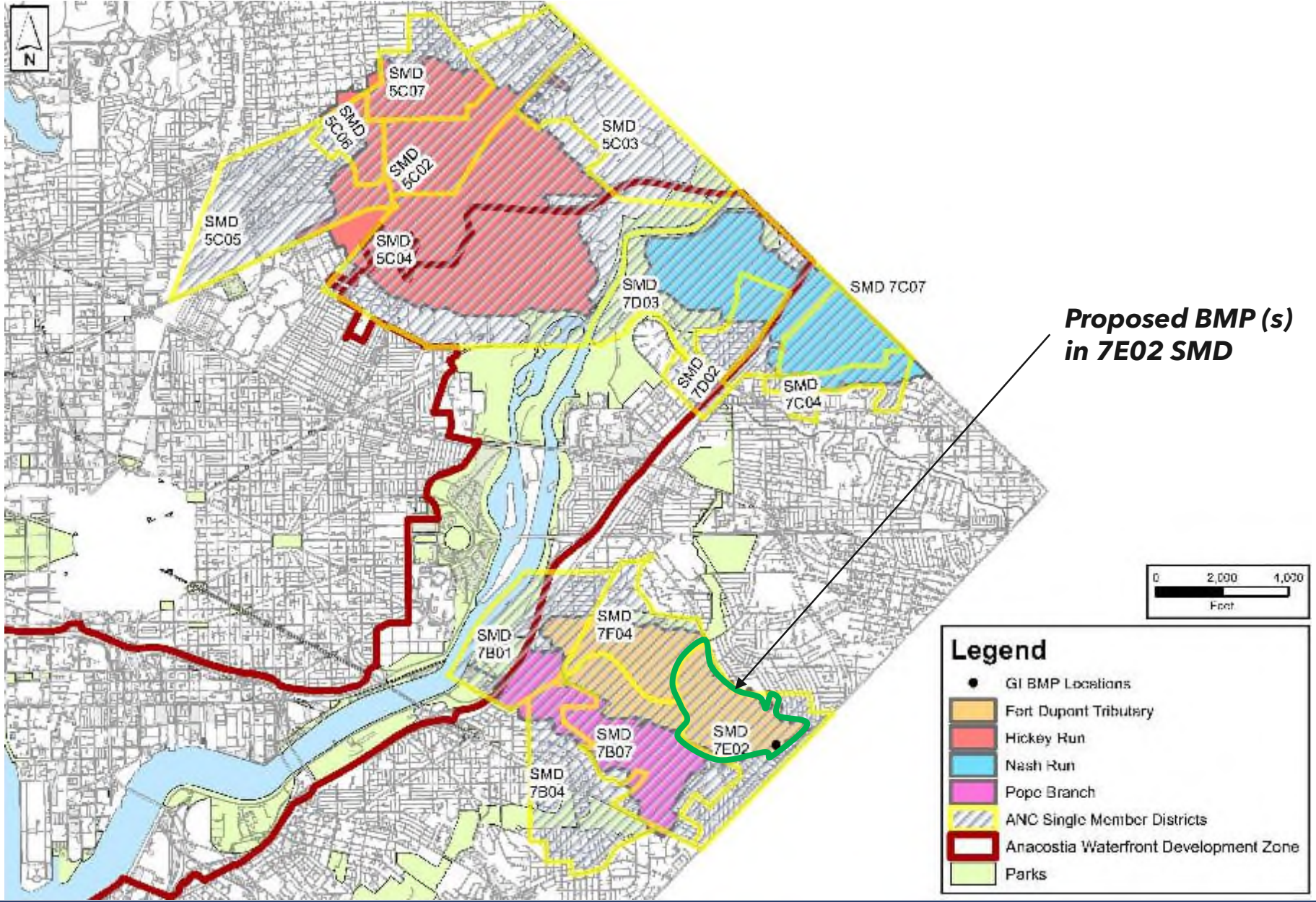
VOLKERT

Green Infrastructure Designer

Inspiregreen™

Public Engagement & Site Screening

PROJECT AREA

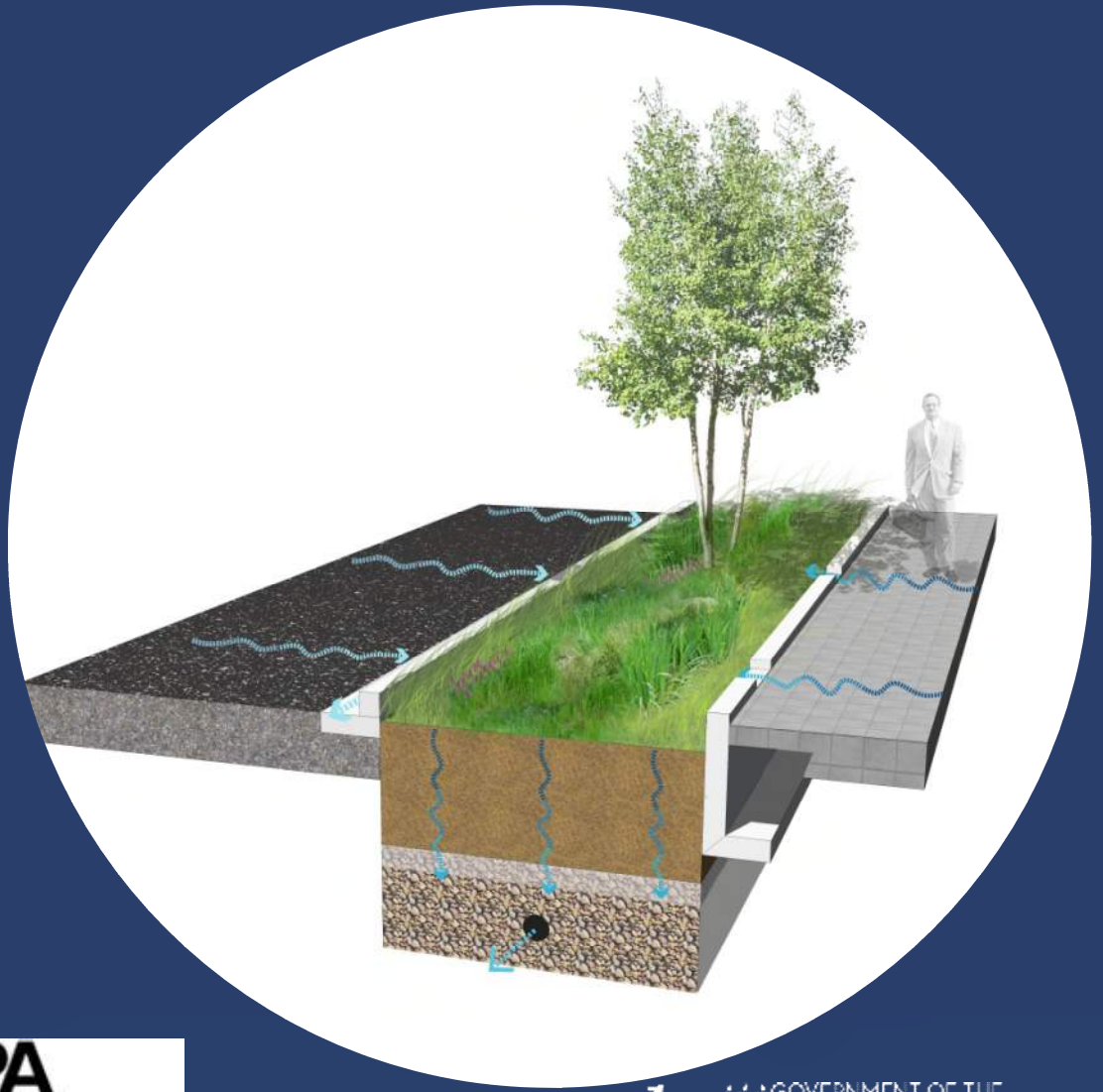


THE CHALLENGE

- The overall goals of this project are to improve water quality and help reduce water quantity impacts to the Anacostia River from stormwater.
- DOEE developed a list of targeted subwatersheds that have the biggest water quality impacts to Anacostia
  - *The Hickey Run, Nash Run, Pope Branch, and Fort Dupont are the 4 watersheds selected for the project*

THE SOLUTION

- Green Infrastructure - Stormwater management approach that mimics the natural water cycle to absorb and treat rainwater incorporating landscaping features and green spaces
  - Plants, trees, permeable pavement
- Project will capture rainwater from 360,000 square feet of impervious surfaces such as roadways



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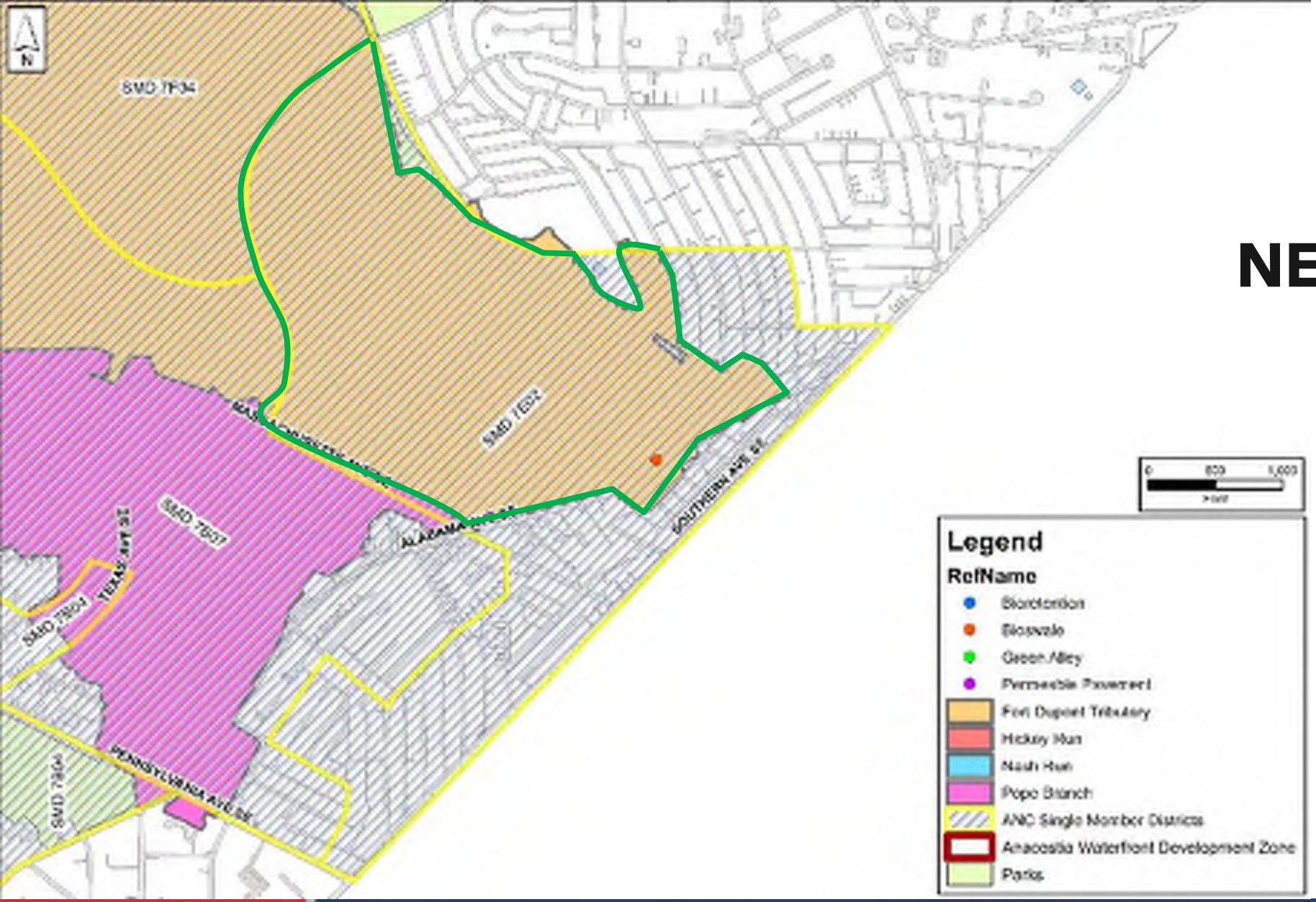
What's Happening In Your Neighborhood?

ONE GI BMP LOCATION IN YOUR NEIGHBORHOOD



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Bioswale GI Practice location

How Does This Benefit You?

USE AS TRAFFIC CALMING TO REDUCE ROADWAY HAZARDS FOR PEDESTRIANS, CYCLISTS, AND MOTORISTS

MAKES OUR NEIGHBORHOODS SAFER BY REDUCING MOTORIST SPEEDS AND ACCIDENTS

NEIGHBORHOOD BEAUTIFICATION

PLANTS AND TREES CAPTURE AND ABSORB STORMWATER TO HELP REDUCE UNSAFE CONDITIONS LIKE FREEZING IN WINTER AND LOCALIZED FLOODING IN SUMMER

CONSERVE ENERGY

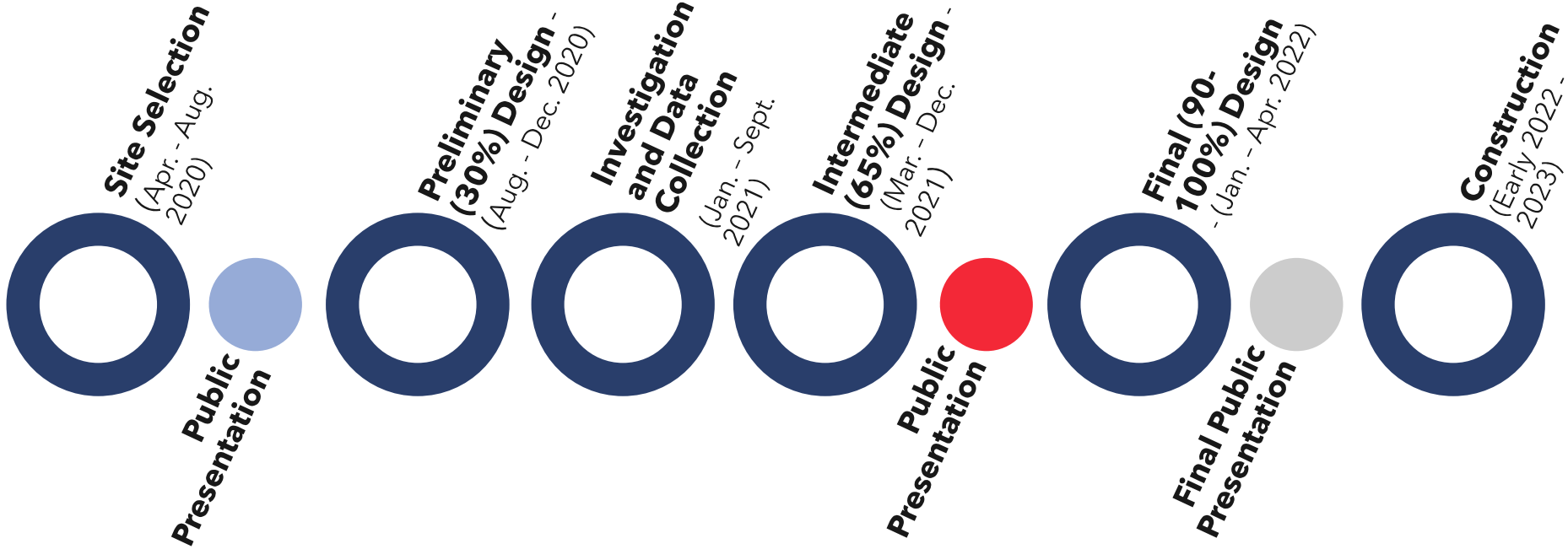
TREES HELP WITH HEAT ISLAND EFFECT, WHICH HELPS REDUCE ROADWAY AND OUTDOOR TEMPERATURES

ENHANCES STREAMS AND RIVERS

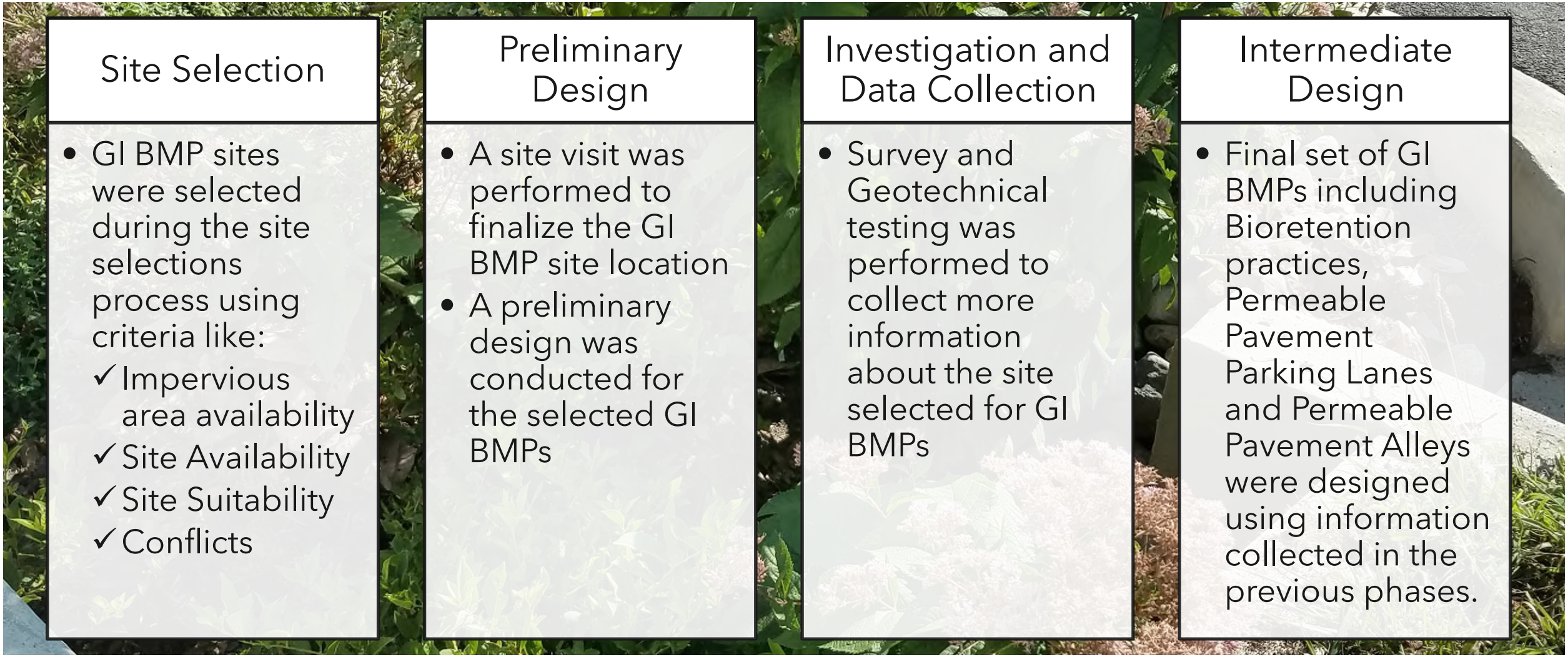
REDUCES POLLUTION AND EROSION IN THE ANACOSTIA RIVER

CONNECTS AND IMPROVES WILDLIFE HABITAT

DESIGN PROCESS



INTERMEDIATE DESIGN



Site Selection

- GI BMP sites were selected during the site selections process using criteria like:
  - ✓ Impervious area availability
  - ✓ Site Availability
  - ✓ Site Suitability
  - ✓ Conflicts

Preliminary Design

- A site visit was performed to finalize the GI BMP site location
- A preliminary design was conducted for the selected GI BMPs

Investigation and Data Collection

- Survey and Geotechnical testing was performed to collect more information about the site selected for GI BMPs

Intermediate Design

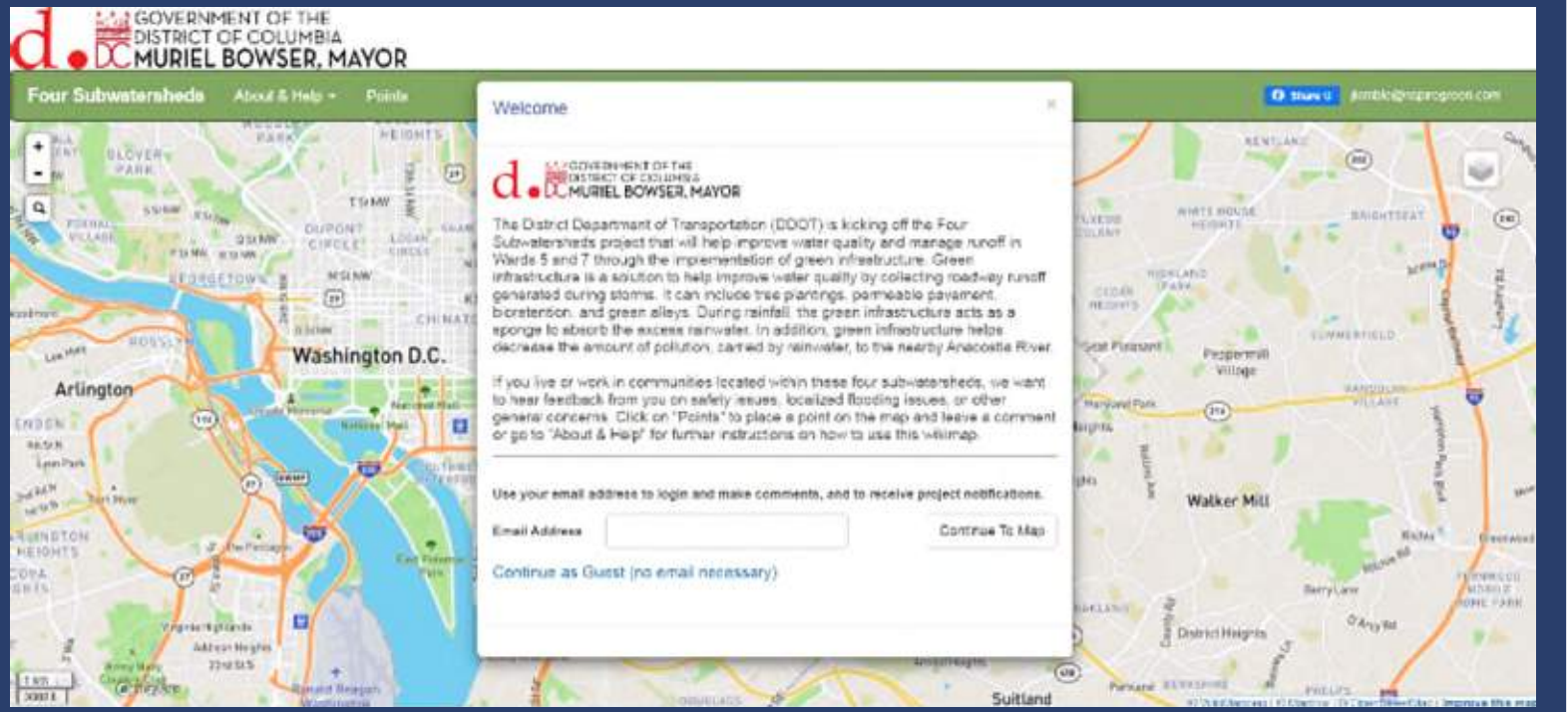
- Final set of GI BMPs including Bioretention practices, Permeable Pavement Parking Lanes and Permeable Pavement Alleys were designed using information collected in the previous phases.

We Need Your Feedback!

NEXT STEPS

COLLECT YOUR FEEDBACK

DEVELOP FINAL DESIGN



VISIT HTTPS://WIKIMAPPING.COM/FOUR-SUBWATERSHEDS.HTML TO GIVE YOUR FEEDBACK

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STAY INFORMED

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