

STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE DESIGN PROJECT

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

Presenter: Jo-Elle Burgard



















DDOT Project Team





Agency

BOWSER, MAYOR

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







What's Happening In Your Neighborhood?













FIVE GI BMP LOCATION IN YOUR NEIGHBORHOOD





Permeable Pavement Parking Lane

And

Bioretention System









Bioretention Systems







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	Preliminary	Investigation and	Intermediate
	Design	Data Collection	Design
 GI BMP sites were selected during the site selections process using criteria like: ✓ Impervious area availability ✓ Site Availability ✓ Site Suitability ✓ Conflicts 	 A site visit was performed to finalize the GI BMP site location A preliminary design was conducted for the selected GI BMPs 	 Survey and Geotechnical testing was performed to collect more information about the site selected for GI BMPs 	 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

WASHINGTON

COLLECT YOUR FEEDBACK

DEVELOP FINAL DESIGN



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









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OV WWW.FOURSUBWATERSHEDS.COM









District Department of Transportation





