Congress Heights Environmental Restoration Project

Public Stakeholder Kickoff Meeting
November 27, 2018

Cecilia Lane & Asteria Hyera
District Department of Energy and Environment

DEPARTMENT OF ENERGY & ENVIRONMENT

DPR
DC DEPARTMENT OF PARKS AND RECREATION

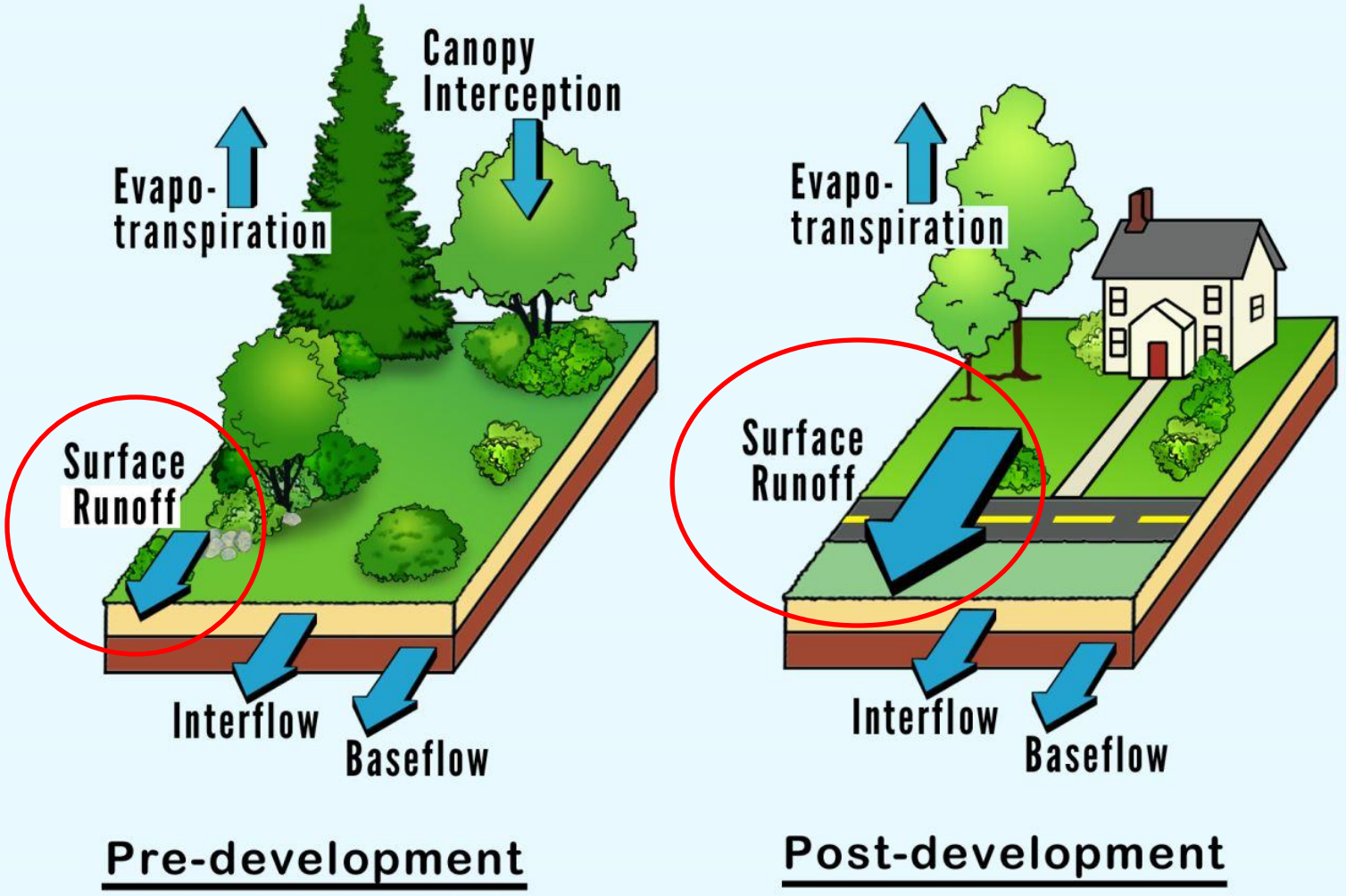
Agenda

- Project Area & Background
- Existing Conditions
- Project Objectives
- Restoration Approach
- Timeline
- Q&A

Project Location

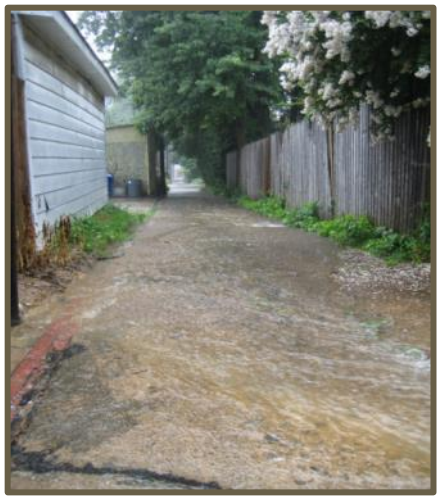
BACKGROUND

Figure 1.1 Water Balance at a Developed and Underdeveloped Site
(Source: Schueler, 1987)



Surface runoff is minimal in an undeveloped site, but dominates the water balance at a highly impervious site.

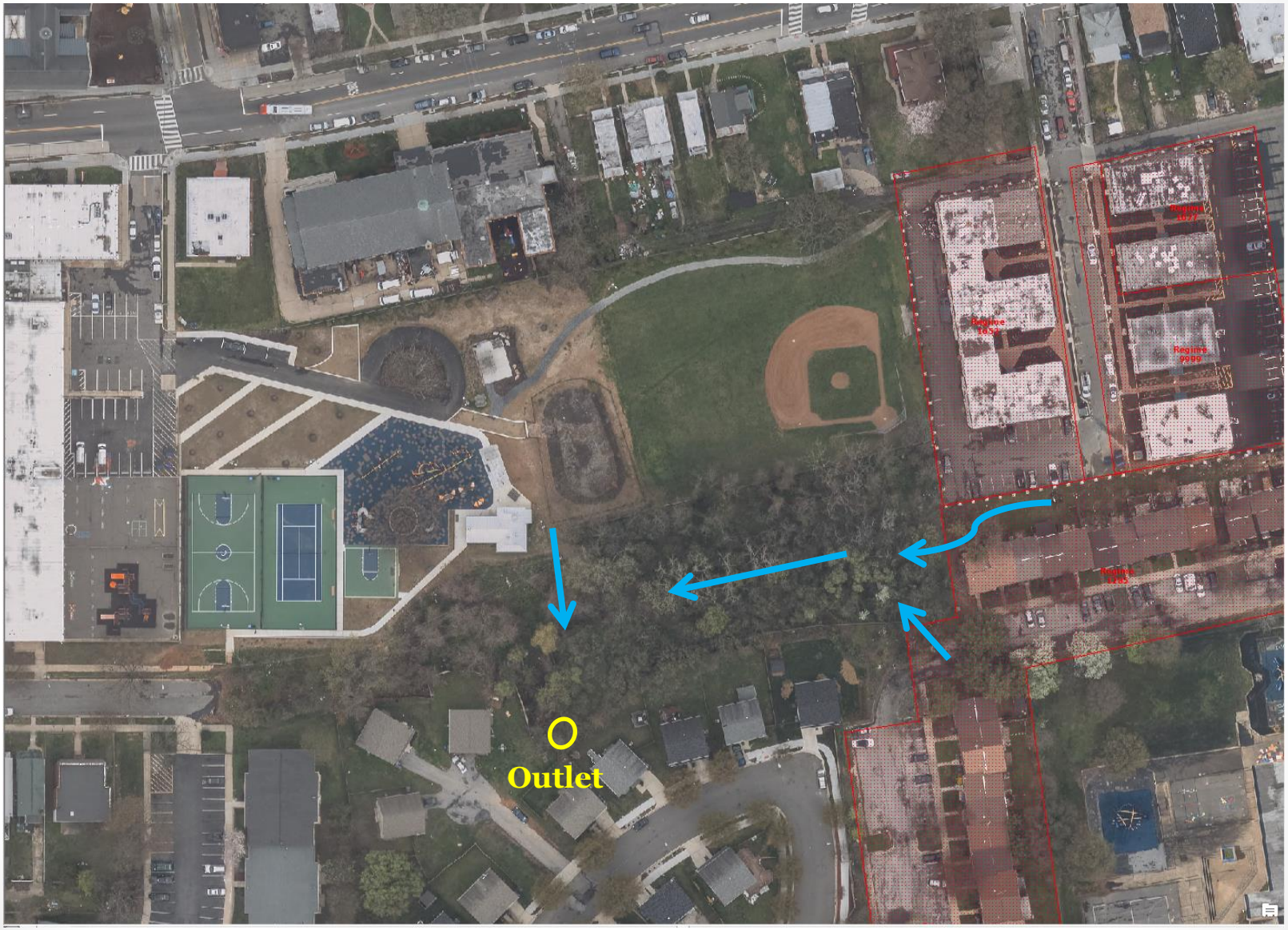
Problem of Stormwater Pollution



Existing Conditions

- Soggy conditions
- Standing water at times
- Invasive plants
- Social trail

Stormwater from adjacent lands travels through gully to storm drain



RESTORATION APPROACH

Most stormwater practices all work the same way: they collect stormwater runoff and use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat (EPA).

Slow it down, Spread it Out, Soak it In !

Some examples follow…

Some examples include…

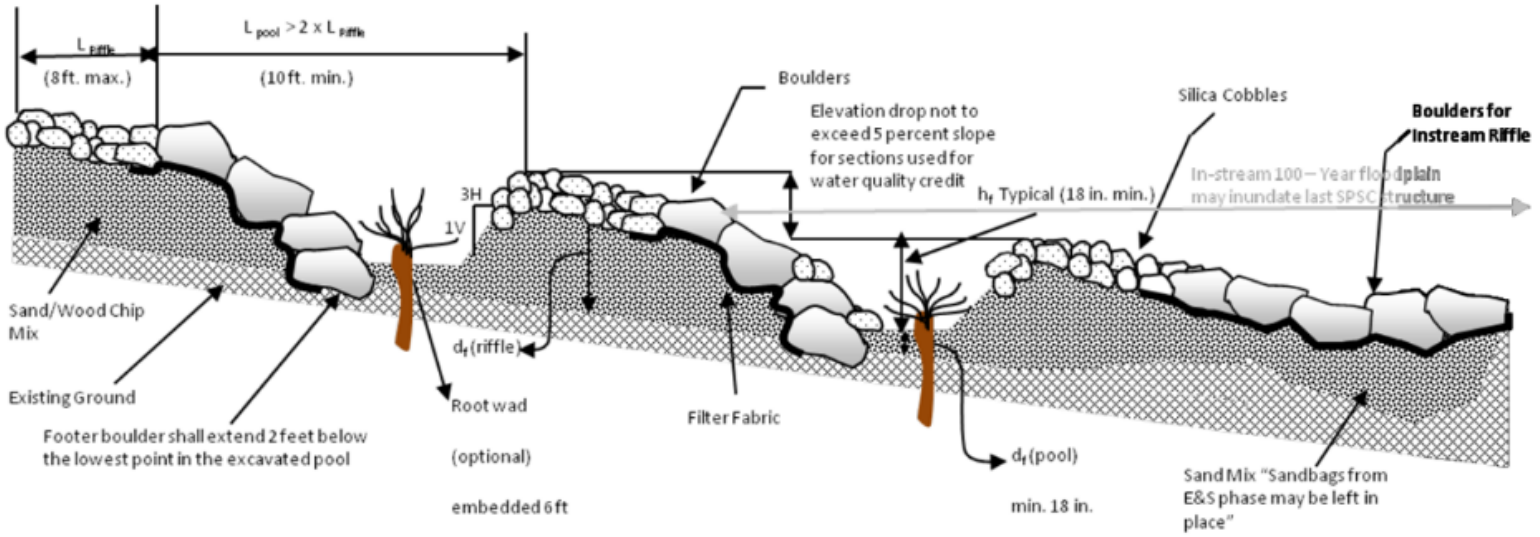
Bioretention

Permeable Pavement

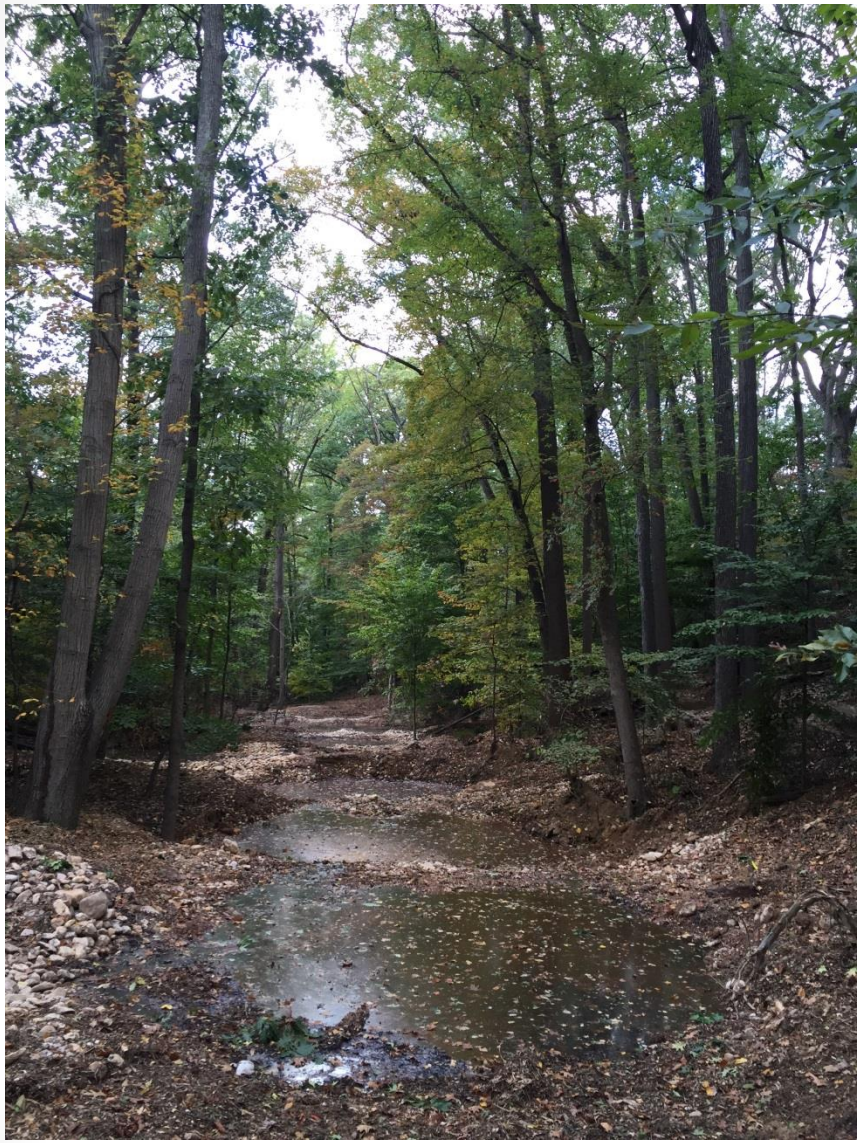
Regenerative Stormwater Conveyance

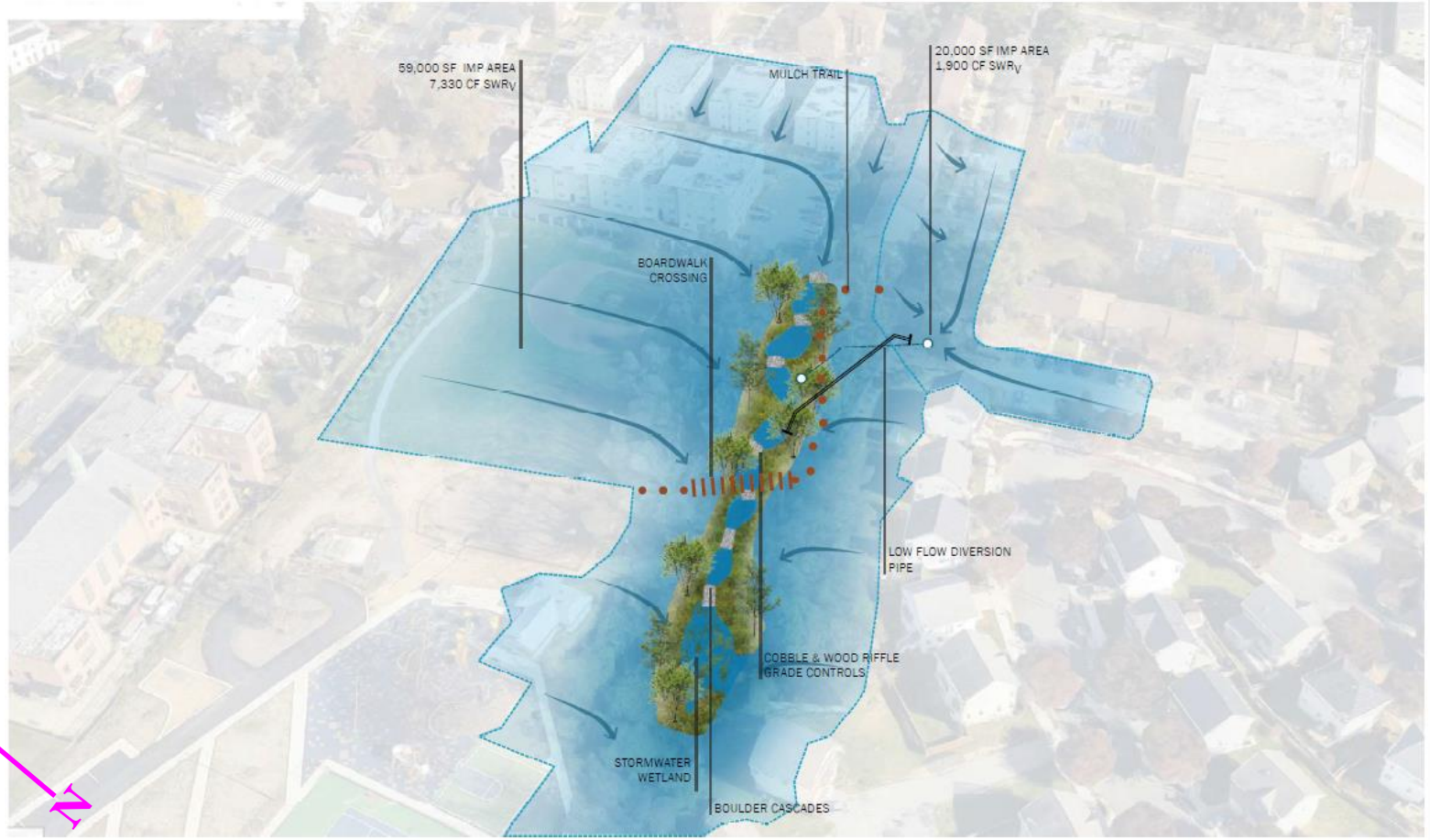
A.

B.



Typical Profile – Alternating Pools and Riffles





CDA ID	Contributing Drainage Area: Paved Drainage Area SF	Compacted SF	Natural SF	BMP SF	Total SF	P IN	Stormwater Retention Volume (SWRv) CF	Max Stormwater Retention Volume - 1.7" (SWRv 1.7) CF
RSC Drainage Area	79,000	50,000	46,000	5,000	180,000	1.2	9,230	12,403

DOEE
Washington, D.C.

Congress Heights Recreation
LID Structure Sites
April 2, 2018

Project Objectives

- Create a healthy, functioning, and self-sustaining ephemeral tributary
- Reduce nutrient and sediment yields
- Restore riparian function
- Control and treat runoff from adjacent impervious and compacted areas
- Maximize habitat creation for local flora and fauna
- Improve overall water quality benefits through this ecosystem establishment
- Remove and suppress growth of invasive species
- Create a community amenity
- Be cost-effective

Assumptions

- Treat maximum amount of stormwater from the site in the most cost effective way
- Work only on District land
- Minimal impacts to the community
- Development of a community amenity
- Educational opportunities

Project Timeline

- November 2018: contract awarded
- November – January 2019: field assessment (topo, geotech etc.)
- January – June 2019: design development
- 3 public meetings:
  - Concept designs
  - Semi-final designs (~65%)
  - Construction kickoff meeting (timeline)
- September 30, 2019: construction completed*

FAQs

- How do we find our project sites?
  - Enthusiastic landowners!
  - Funding sources
  - Large areas of untreated impervious cover
  - More impactful locations
- What can I do?
  - RiverSmart Homes
    - Rain Gardens
    - Permeable Pavers
    - Rain Barrels
    - Tree Planting
    - “BayScaping”

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Questions