

BENNING PARK STORMWATER RETROFIT PROJECT

PUBLIC STAKEHOLDER MEETING CONCEPT DESIGNS

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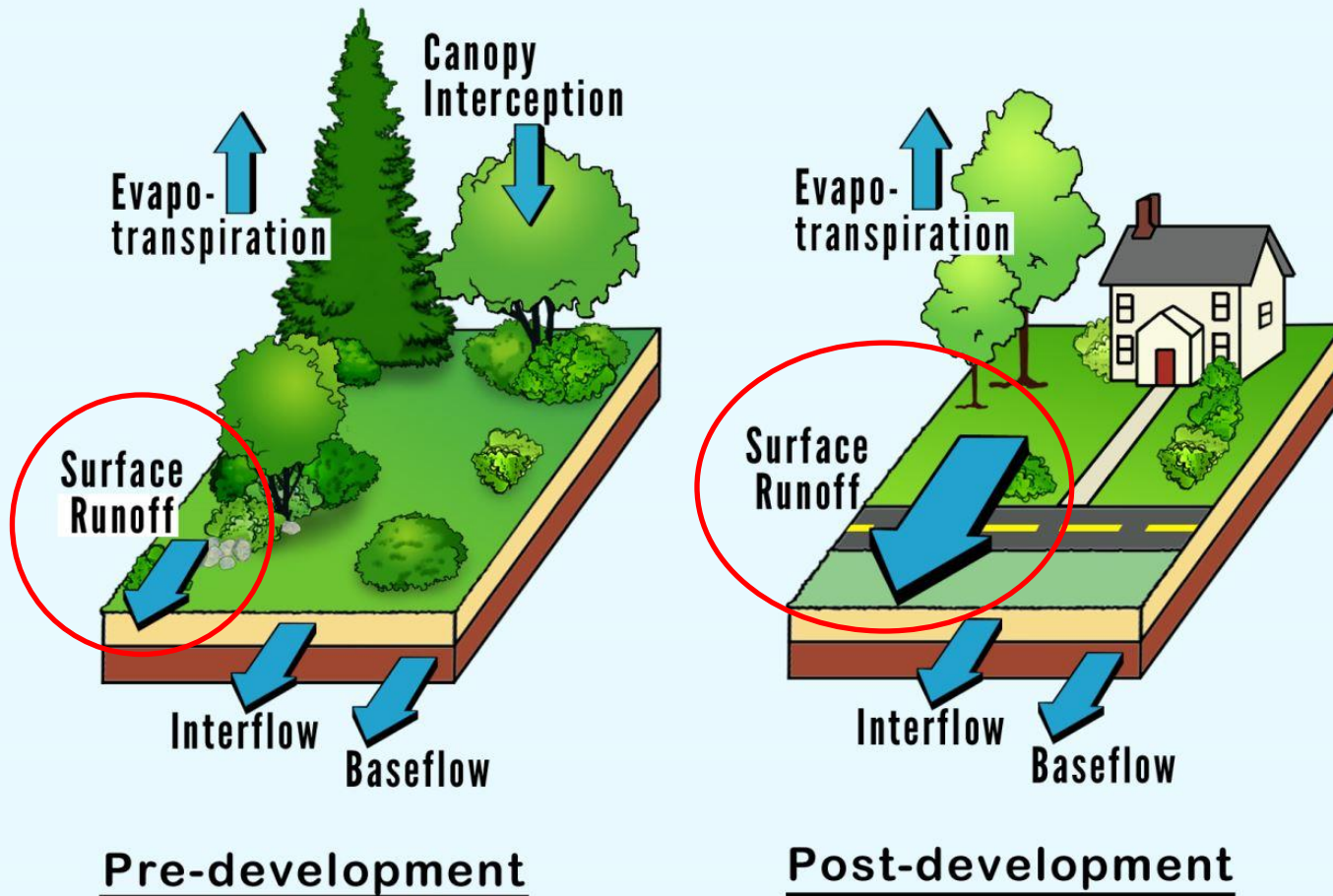
GOVERNMENT OF THE
DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

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











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).

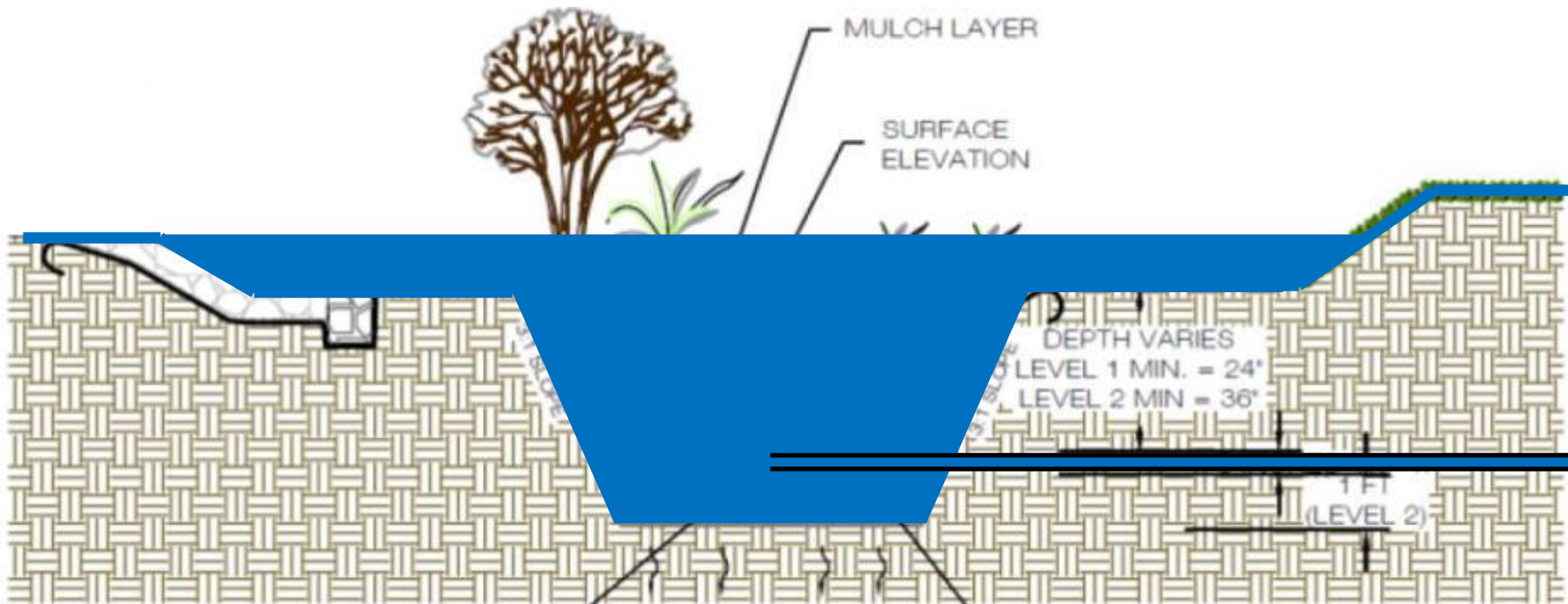
Slow it down, Spread it Out, Soak it In !

Some examples follow...

BIORETENTION



BIORETENTION: HOW IT WORKS



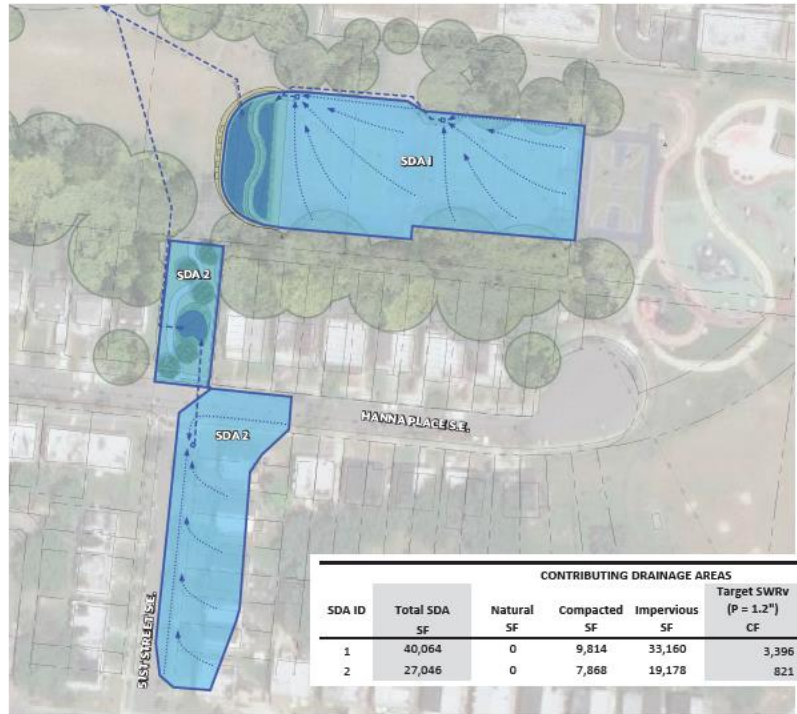
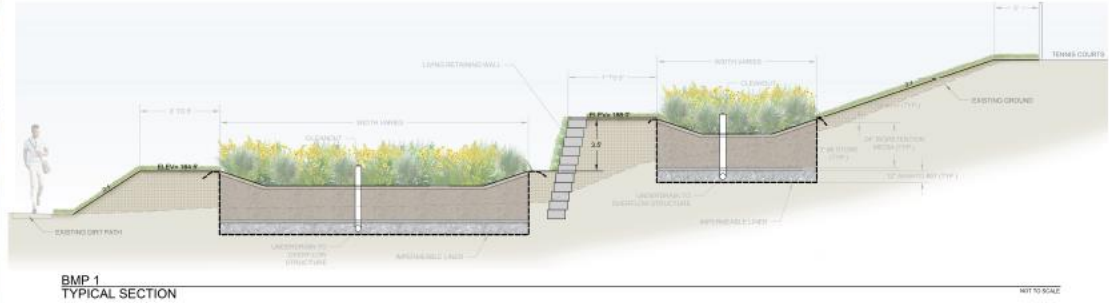
BIOSWALES



PERMEABLE PAVEMENT



PROJECT CONCEPT



CONTRIBUTING DRAINAGE AREAS							
SDA ID	Total SDA SF	Natural SF	Compacted SF	Impervious SF	Target SWRv (P = 1.2") CF	Provided Sv CF	Runoff Treated IN
1	40,064	0	9,814	33,160	3,396	4,269	1.51
2	27,046	0	7,868	19,178	821	1,023	1.50

BENNING PARK
GREEN INFRASTRUCTURE CONCEPT

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 (topographic survey, geotechnical investigations etc.)
- January – June 2019: design development
- 3 public meetings:
 - Concept designs
 - Semi-final designs (~65%)
 - Construction kickoff meeting (timeline)
- September 30, 2019: construction complete

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”



QUESTIONS

