BENNING PARK STORMWATER RETROFIT PROJECT

PUBLIC STAKEHOLDER MEETING CONCEPT DESIGNS

JANUARY 16, 2019

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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: HOW IT WORKS
BIOSWALES
PERMEABLE PAVEMENT
PROJECT CONCEPT

BENNING PARK
GREEN INFRASTRUCTURE CONCEPT

CONTRIBUTING DRAINAGE AREAS

<table>
<thead>
<tr>
<th>TOTAL ID</th>
<th>Total SQF</th>
<th>Natural SF</th>
<th>Compacted SF</th>
<th>Impervious SF</th>
<th>Target SVR (P = 1.0&quot;)</th>
<th>Provided SVR CF</th>
<th>Treated SVR CF</th>
<th>Runoff Treated IN</th>
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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