Leveraging Policy & Public Funds to Restore Waters in the District of Columbia
Challenges Many Years in the Making
Scale of the Challenges
Major Sources of Impairment

- Legacy Toxics
- Raw Sewage in CSOs
- Stormwater Runoff
- Upstream Sources
Upstream Sources

- The District of Columbia makes up only:
  - 0.5% of Potomac River Watershed
  - 18% of Anacostia River Watershed
  - 21% of Rock Creek watershed

- Pollution from beyond the District impacts our waters
Upstream Sources

- Regional coordination and collaboration to ensure District programs and efforts are mirrored upstream

- Federal Partnerships
  - Urban Waters Initiative
  - Federal Stormwater MOU
Legacy Toxics

- River bottom sediments contaminated with harmful chemicals from past industrial activity
- Contributes to pollutant loading and poses risks to health of wildlife and residents
Anacostia River Sediment Investigation

- Sample sediment, water, and fish from a nine-mile segment of the Anacostia River
- Develop a cleanup plan for contaminated sediments
- Identify Responsible Parties
Combined Sewer System

- 1/3 of the District
- 3.2B gallons of sewage and stormwater overflows annually (historically)
Clean Rivers Project

- DC Water’s consent decree obligations to reduce combined sewer overflows
- Will reduce combined sewer overflows by 96%
- $2.6B+ capital project
- Largely funded by rate payers
Stormwater Runoff

IMPERVIOUSNESS

43% IMPERVIOUS
1.2 INCH STORM = 525 MILLION GALS OF RUNOFF

STORMWATER

DEGRADATION
Stormwater Runoff

- Separate Storm Sewer Sys
  - 2/3 of District
  - Direct discharge without treatment
  - $7B + GI build-out
  - $10 Mil/yr public funds for GI
Stormwater Improvements

STORMWATER IMPROVEMENTS

GOALS

TURN BACK THE CLOCK ON DEVELOPMENT

RETROFIT IMPERVIOUS SURFACES WITH GREEN INFRASTRUCTURE

LAYERED PROGRAMS

DIRECT PUBLIC INVESTMENT
INCENTIVES
REGULATIONS
Stormwater Improvements

STORMWATER IMPROVEMENTS
DIRECT PUBLIC INVESTMENT

TRANSPORTATION RIGHT-OF-WAY
PUBLIC BUILDINGS
STREAM RESTORATIONS
Stormwater Improvements

STORMWATER IMPROVEMENTS
INCENTIVE PROGRAMS

SUBSIDIES FOR PRIVATE SECTOR (RIVERSMART)
STORMWATER FEE DISCOUNT PROGRAM
STORMWATER RETENTION CREDIT TRADING MARKET
Other SWM Initiatives

OTHER STORMWATER MANAGEMENT INITIATIVES

- Bag Law
- Coal Tar Ban
- Styrofoam Ban
Revised Stormwater Regulations

- Effective January 2014

- Land-disturbing activities must retain the first 1.2” of rainfall.

- Interior renovation projects must retain the first 0.8” of rainfall.
Practical Approach: Off-Site Flexibility

- Free to go off site after achieving 50% of required retention on site.

Total: 10,000 gallons

On-Site Achieved: 5,000 gallons

Off-Site Required: 5,000 gallons
Trading Maximizes Sustainability

Problem of imperviousness is opportunity for trading to:

- Maximize cost savings & flexibility for regulated sites.
- Increase retention and accelerate restoration of waterbodies.
- Increase socioeconomic benefits, with more LID (health, aesthetics, environmental justice, green jobs).
Stormwater Retention Credits (SRCs)

**SRCs Certified per Watershed**
- 86% - Anacostia
- 13% - Potomac
- 1% - Rock Creek

**SRCs Certified per Sewershed**
- 95% - MS4
- 5% - CSS

**SRCs Certified Each Fiscal Year**
- FY2014: 51,243
- FY2015: 194,588
- FY2016: 278,872
- FY2017: 1,885,443

(Number of SRCs-Sum)
## Modeling Progress

### Scenario - Current Condition

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Program Results

- GI is now standard practice
- 14 SRC trades completed
- Voluntary Private Investments in GI
- Over 4000 residential properties retrofit
- Over 2.7 Mil SF of green roof installed
- Forecast that 30% of MS4 impervious surfaces will be retrofit by 2040
QUESTIONS?

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SRC trading - doee.dc.gov/src
Stormwater management regulations - doee.dc.gov/swregs
RiverSmart Programs - doee.dc.gov/riversmart
Stormwater Plan - dcstormwaterplan.org