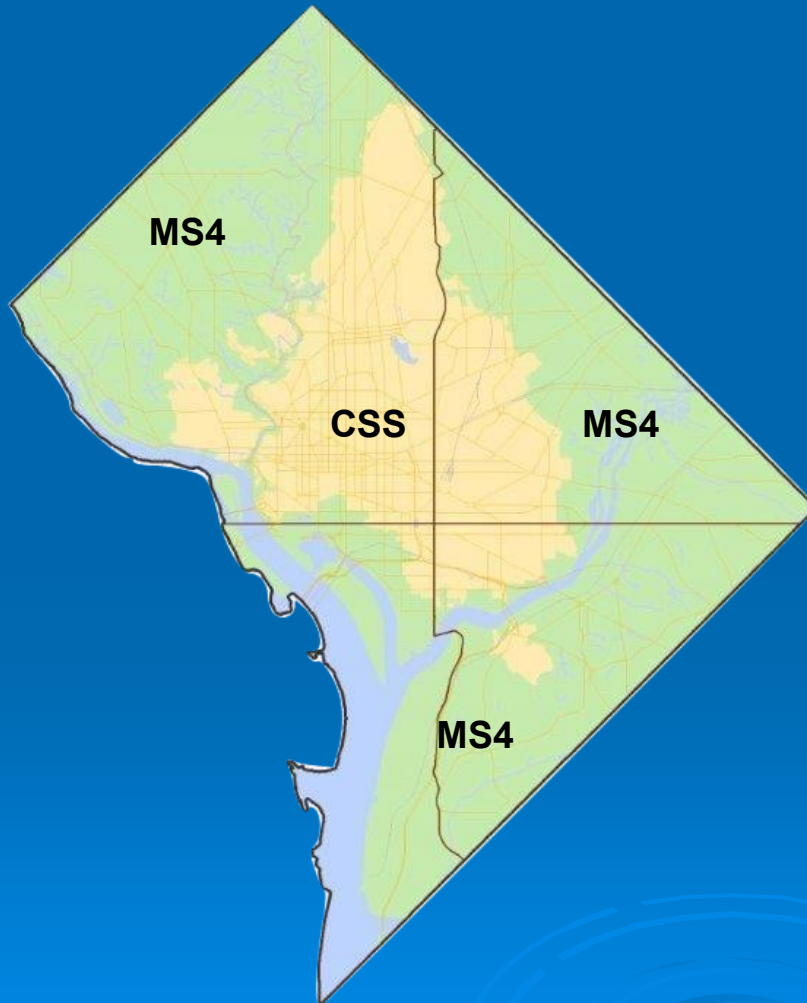


Scaling Green Infrastructure in Washington, DC



Brian Van Wye

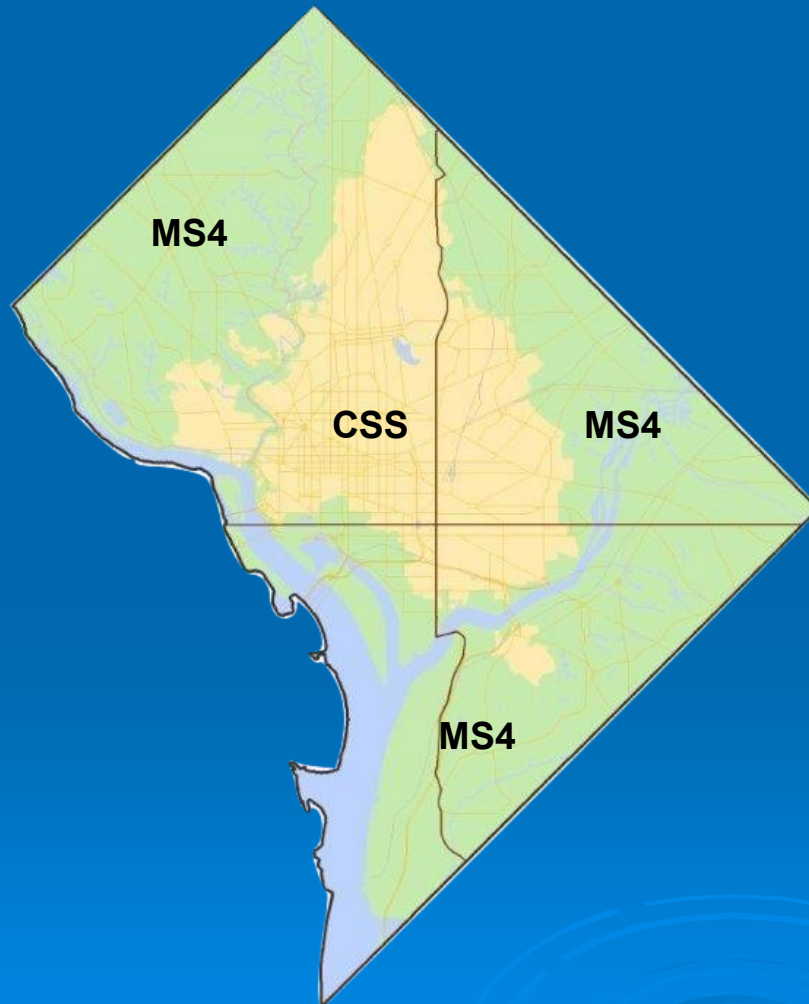
Regulations Key to MS4 Stormwater Solution



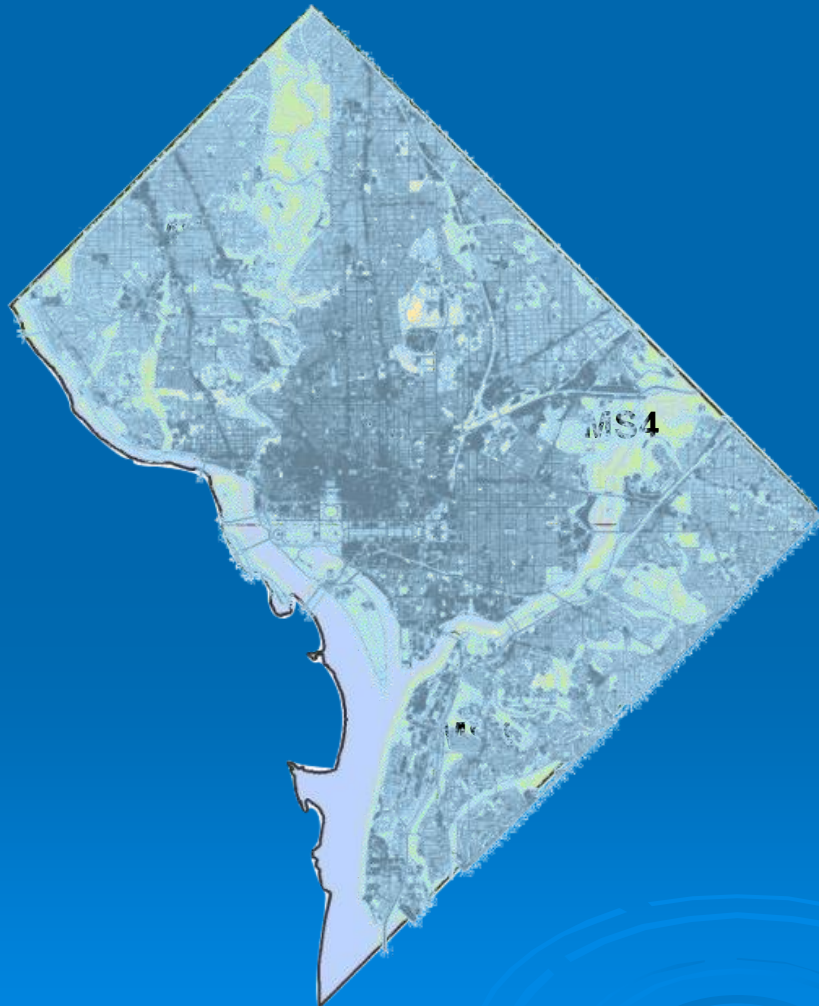
➤ Municipal Separate Storm Sewer System

- \$7B+ GI build-out
- \$10 Mil/yr for GI
- GI stormwater regulations can achieve 10x the GI retrofits of voluntary programs

Flexibility for Regulated Development



Flexibility for Regulated Development



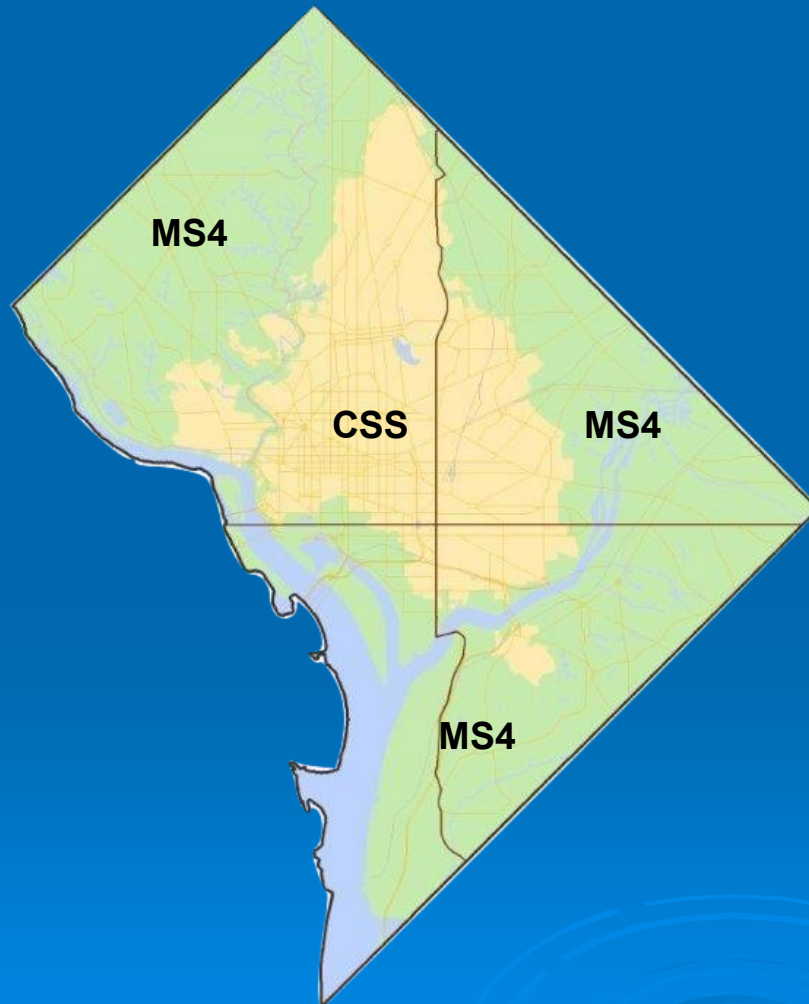
- 43% of the District's land is impervious.

Flexibility for Regulated Development

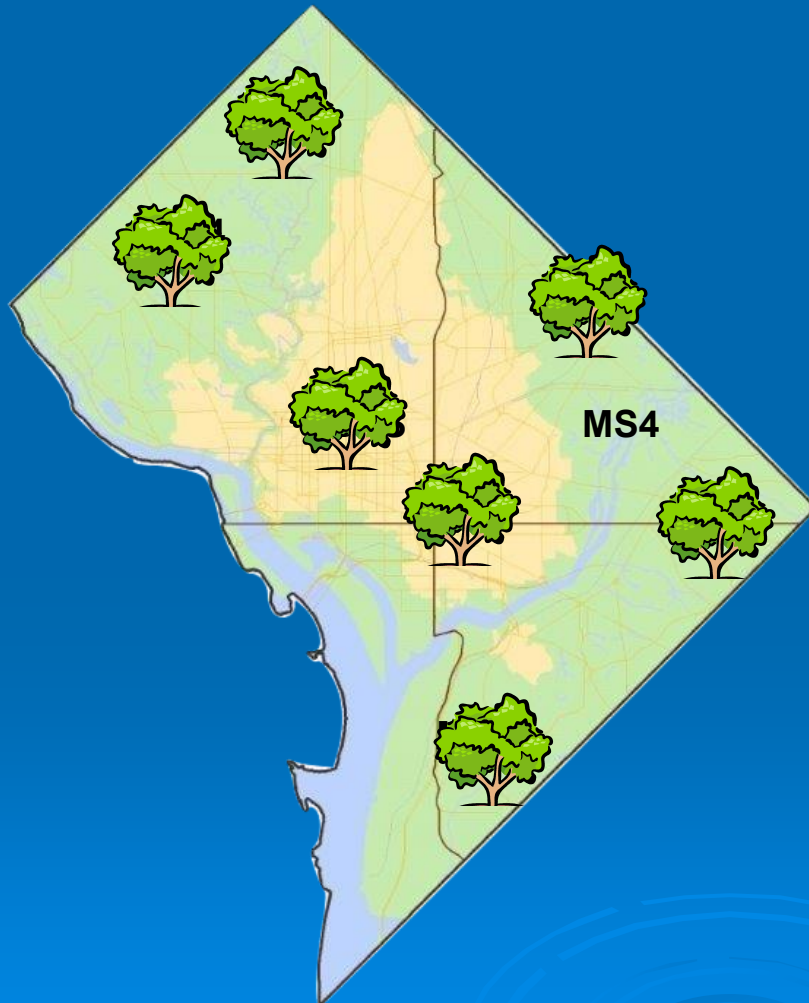
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Optimizing Environmental Outcomes



Optimizing Environmental Outcomes



- GI located in MS4 is
 - More beneficial for waterbodies
 - Less expensive
 - Provides greater environmental justice outcomes.
- GI size/capacity can be optimized

Stormwater Retention Credit Trading

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



Impervious surface =
14,000 sf

1.2" retention required = 10,000 gal.
On-site minimum = 5,000 gal.

- Off-site volume is ongoing annual obligation.
- Two options to achieve Offv:
 - In-lieu fee (ILF) payment to DOEE = \$3.58/gallon/year.
 - Privately tradable SRCs. 1 SRC/gallon/year.

DOEE SRC Purchase Program

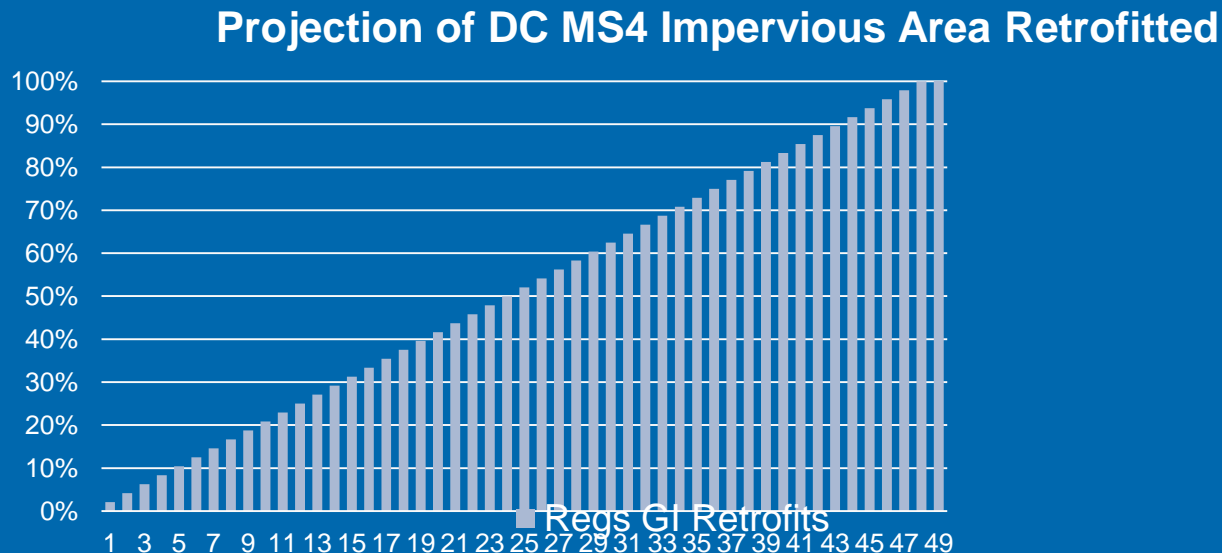
- Pay for performance option contract.
 - 1 SRC = 1 gallon of installed GI retention capacity.
 - DOEE pays for 3 years at a time.
 - SRC generator has option to sell to DOEE per contract terms.
- Price floor provides certainty to private investors and SRC generators.
- Engage private capital – e.g. \$1.7M investment from Prudential.
- Incentivize GI retrofits in priority locations of MS4.
- Initial \$11.5M investment to scale up if successful.

Leveraging private capital via DOEE SRC Purchase Program



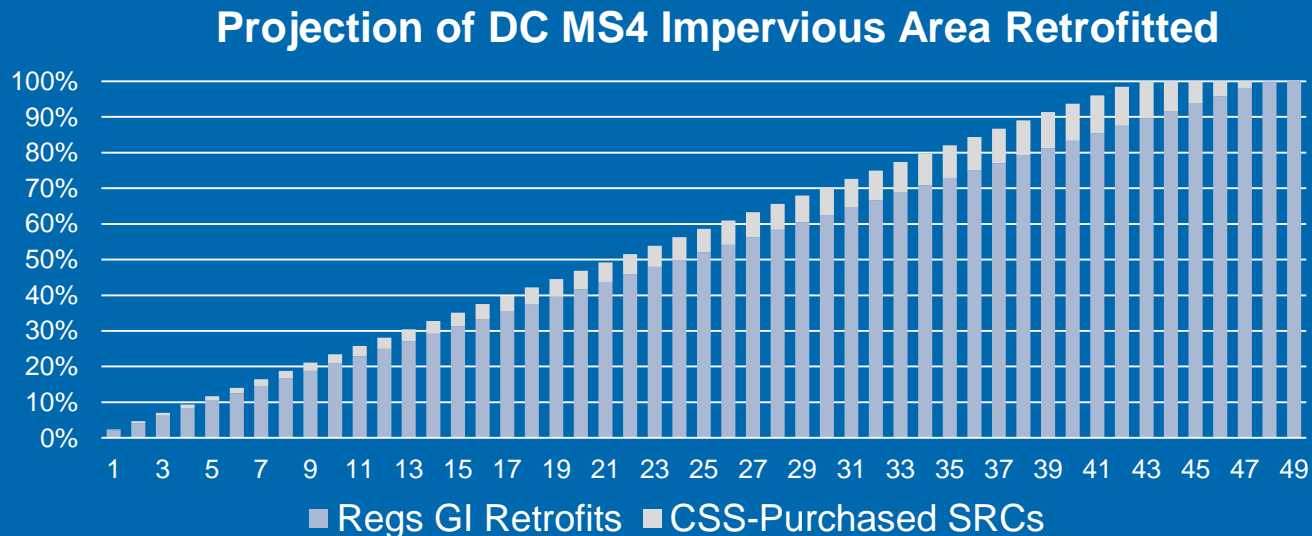
Benefits for District of SRC Purchase Program

- Risk of maintenance failure not born by DOEE.
- Risk of selecting site that will trigger regs not born by DOEE.
- Incentive to find least-cost opportunities on public & private land.
- Savings for ratepayers compared to DOEE building GI itself.
- SRCs as regulatory currency facilitates scaling up and down.



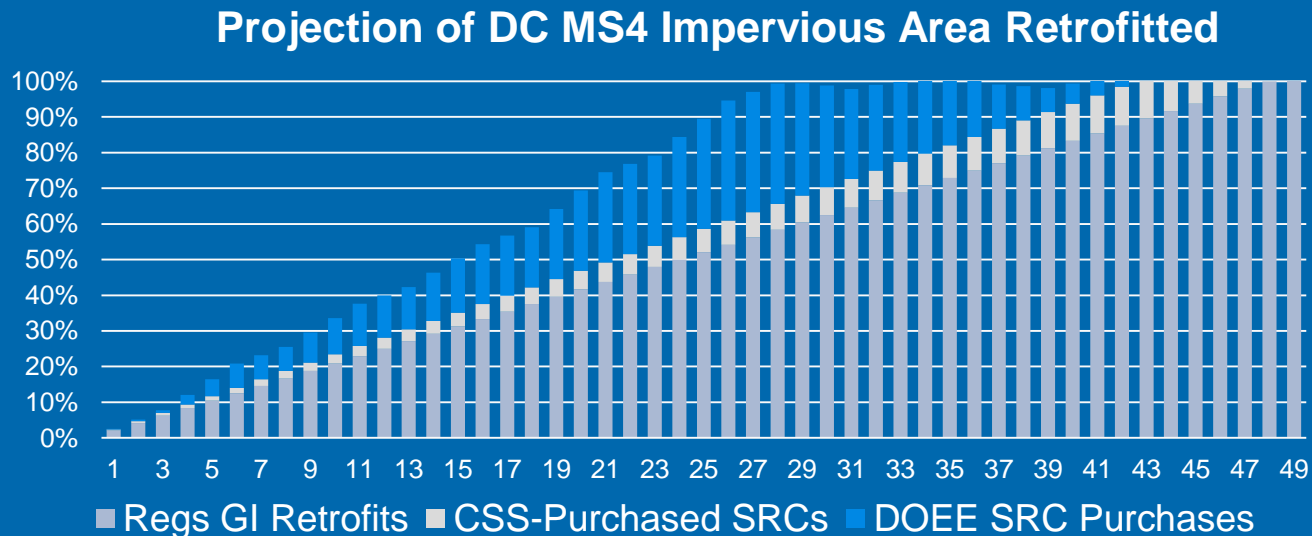
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SRC Market Data

➤ SRC trades

- 10 trades, 8 in 2016
- 46,998 SRCs sold
- \$92,209 in sales
- Average price - \$1.85 per SRC

➤ Demand:

- Approximately 12% of regulated sites (35 projects) have opted to meet some of their retention obligation off site.
 - Compliance required at end of construction.
 - 25 of 35 sites still in construction.
 - Approximately 252,000 gal. of annual demand vs. annual retention capacity for SRCs of 201,000 gallons.
-
- 80% of SRCs used were generated in MS4 and meet demand in CSS.
 - 13% of SRCs used were generated in MS4 and meet demand in MS4.

For More Information

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SRC trading - green.dc.gov/src

RiverSmart Rewards discount - green.dc.gov/riversmartrewards

Stormwater management regulations - green.dc.gov/swregs

