



# Regional Support for Green Infrastructure

Briefing for COG Board

Wednesday, April 9, 2014



# What is Green Infrastructure (GI)?

- **What is it?**

- Also known as Low Impact Development (LID)
- Uses plants, trees & other measures to mimic natural processes to control stormwater, & promote rainwater detention/infiltration into the soil
- Includes techniques such as rain gardens, porous pavements, green roofs & other technologies

Bioretention/Rain Gardens  
*Infiltration, Filtration, Detention  
Storage, Evapotranspiration*



Permeable Pavement  
*Infiltration, Filtration, Detention  
Storage*



Cisterns/Rain  
Barrels  
*Storage*



Vegetated Swales  
*Filtration,  
Infiltration,  
Evapotranspiration*



Native Landscaping  
*Infiltration,  
Evapotranspiration*



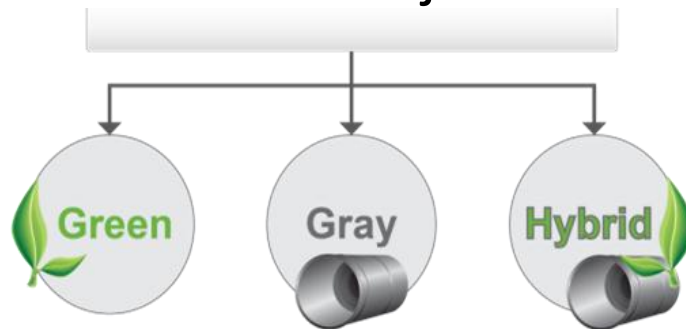
Green Roofs  
*Filtration, Retention Storage,  
Evapotranspiration*



# Green Infrastructure

- **Why do we need to consider Green Infrastructure?**

- Achieving water quality objectives benefits everyone – but takes time & is often expensive
- Need to consider a range of options to cost-effectively & sustainably address water quality Issues
- Green Infrastructure - alone, or in combination with other more traditional (gray) infrastructure needs to be an option to achieve our objectives



Graphic courtesy of DC Water

# Green Infrastructure

- **What is DC Water Doing ?**

- Invested \$10 million for various Green Infrastructure projects:
  - Planted more than 5500 trees via UFA, and rain garden at Irving & North Capital St.
  - Green Roofs at Ft. Reno & Eastside Pumping Station, and bioretention at Anacostia PS
  - Funded Riversmart Washington Demonstration Project
  - GI Challenge
- Now - \$100 million proposal to modify Clean Rivers Project
  - Will incorporate green infrastructure as innovative new element of the plan to address combined sewer overflows to the Potomac River & Rock Creek

# Green Infrastructure

- **Why is GI Important to the Region?**

- COG's Region Forward program encourages use of GI to achieve our Sustainability goals
- GI projects have potential to provide a wide range of benefits:
  - Environmental
    - Reduce stormwater runoff/result in better water quality;
    - Use trees & other plants to improve air quality, expand wildlife habitat, reduce summer temperatures, reduce energy usage, and help to offset climate change
  - Social – Improved livability and enhanced green spaces
  - Economic – Sustainable/local green jobs

# Green Infrastructure

- **Why is DC Water's GI Proposal Important to the Region?**

- DC Water's GI proposal would provide:
  - Unique opportunity to implement/demonstrate/assess large-scale green infrastructure projects in COG region
  - Meaningful and important information to local, regional and national efforts to effectively implement such projects
- DC Water's Clean Rivers Project & new GI element have the potential to:
  - Benefit not only the waterways of the District of Columbia and the Potomac River, and
  - Provide broader regional environmental benefits

# Recommendation

- Given:
  - COG's support for the use of innovative technologies to achieve environment objectives in the region; and
  - COG's Region Forward Sustainability goal
- **COG's Chesapeake Bay and Water Resources Policy Committee has considered this proposal and are recommending that the COG Board of Directors endorse it**