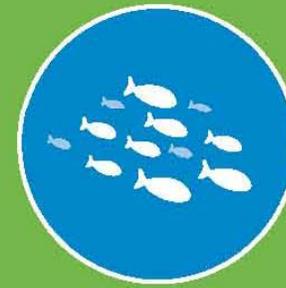




District of Columbia Water and Sewer Authority  
George S. Hawkins, General Manager

# Green Infrastructure Challenge



## Award Ceremony

January 9, 2014

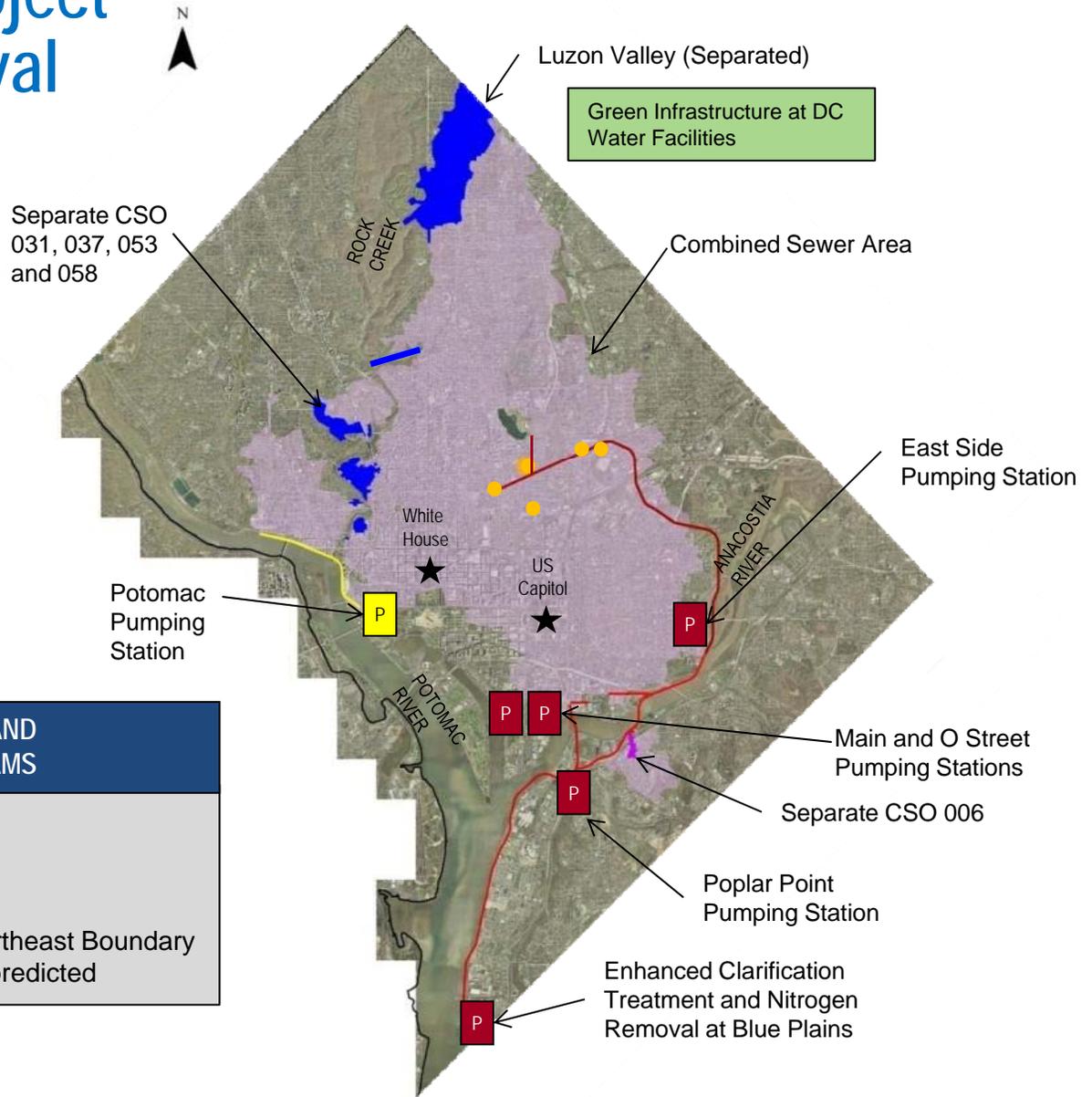


[DCWATER.COM](http://DCWATER.COM)

# DC Clean Rivers Project and Nitrogen Removal Programs

**LEGEND**

-  Anacostia River Tunnel System
-  Potomac River Tunnel
-  Piney Branch Tunnel
-  Pumping Station Rehabilitation
-  Known Flood Area

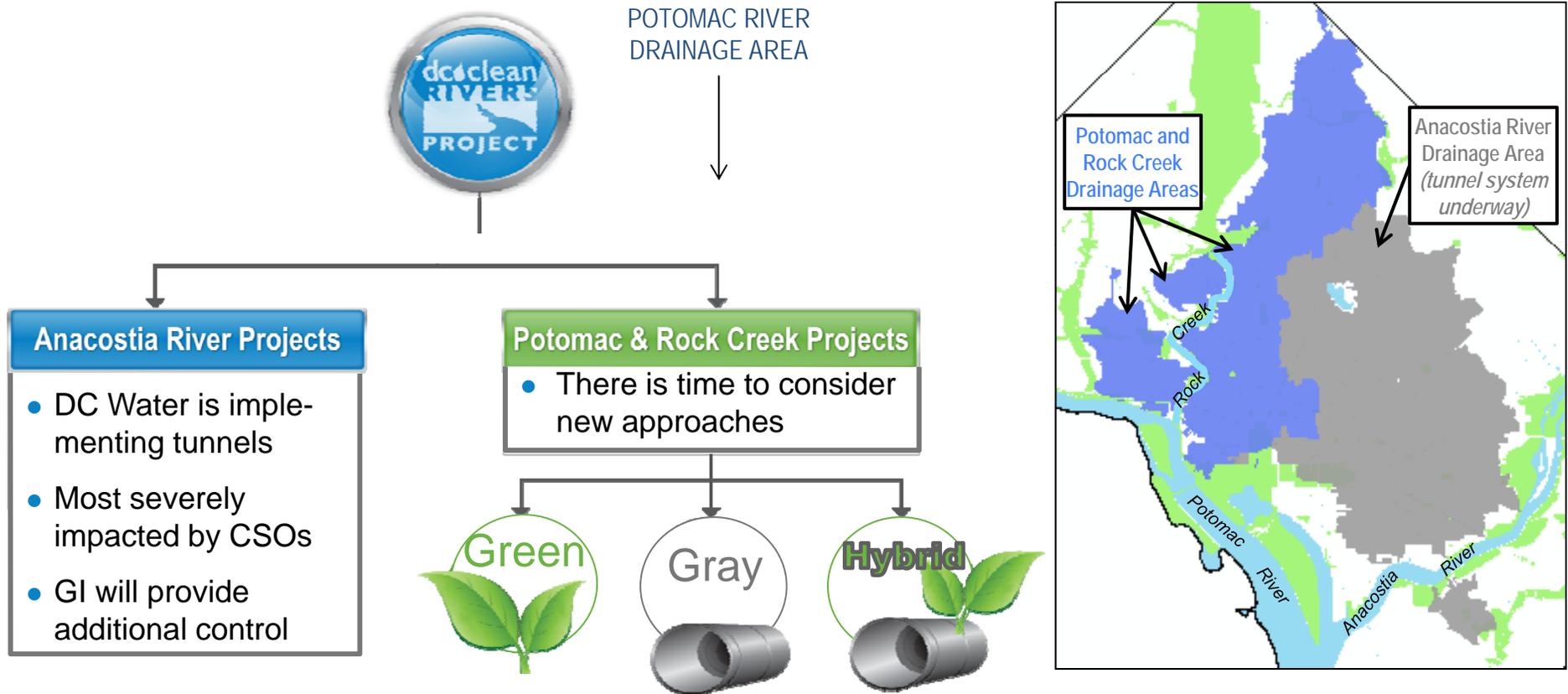


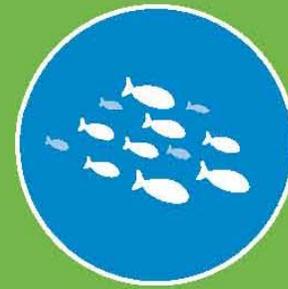
**DC CLEAN RIVERS PROJECT AND NITROGEN REMOVAL PROGRAMS**

- DC Clean Rivers Project: \$2.6 Billion
- Nitrogen Removal: \$950 Million
- Total > \$ 3.5 Billion
- 20 yr implementation (2005 – 2025)
- 96% reduction in CSOs & flood relief in Northeast Boundary
- Approx 1 million lbs/yr nitrogen reduction predicted



# DC Water Proposes a New Approach to CSO Control





# GREEN INFRASTRUCTURE CHALLENGE

# GI Challenge Goals

---

- Advancing innovative technologies
- Capturing stormwater runoff volume
- Demonstrating cost effective solutions
- Proposing practical and implementable solutions that can be constructed
- Retrofitting the urban environment



Green Roof Planting at East Side Pumping Station



# Evaluation Criteria

---

- **Innovation:** focus on Programmatic/New Technologies
- **Performance:** focus on Capture Volume and Cost Effectiveness
- **Practicality:** focus on O&M and Constructability
- **Triple Bottom Line:** focus on Community Enhancement and Local Job Creation



Bioretention Construction at Anacostia Water Pumping Station



Green Roof Construction at Fort Reno Reservoir

# Evaluation Panel

---

- Thank you to the District Agencies and Industry Experts for serving on the Evaluation Panel

| Evaluation Panel Member | Organization                           |
|-------------------------|--|
| Bill Howland            | District Department of Public Works    |
| Muhammed Khalid         | District Department of Transportation  |
| Laine Cidlowski         | Office of Planning                     |
| Keith Anderson          | District Department of the Environment |
| Beth Mullin             | Rock Creek Conservancy                 |
| Mark Buscaino           | Casey Trees                            |
| Carlos Ostria           | DC Building Industry Association       |
| Seth Brown              | Water Environment Federation           |

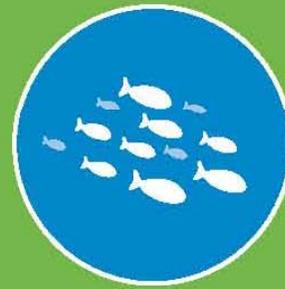


# Schedule

---

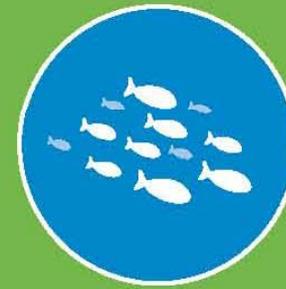
- Design Phase Awards will be presented today
- Winning teams will be invited to provide proposals for next phase of design
- Final Design/Construction Schedule:

| Next Steps  | Target Schedule               |
|---|-------------------------------|
| <b>DC Water to Conduct Feasibility Analysis (outreach and inter-agency collaboration)</b> | 1 <sup>st</sup> Quarter, 2014 |
| <b>DC Water to lock-in sites</b>  | 2nd Quarter, 2014             |
| <b>RFP</b>  | 3rd Quarter, 2014             |
| <b>Final Design Award</b>   | 4 <sup>th</sup> Quarter, 2014 |
| <b>Construction</b>   | Beginning in 2015             |



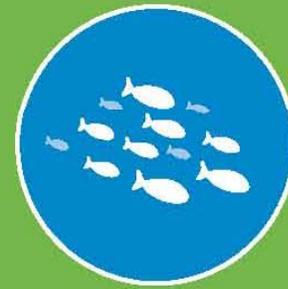
**THE CHALLENGE WINNERS ARE..**

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



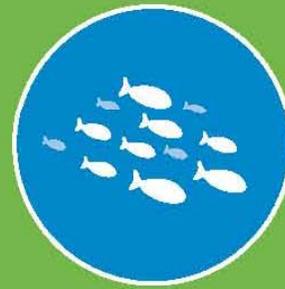
# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



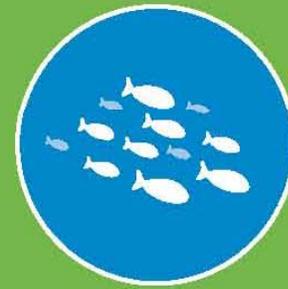
# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



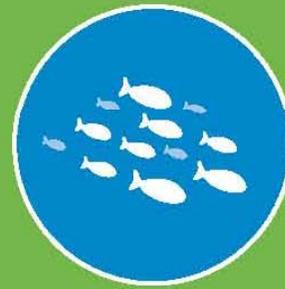
# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



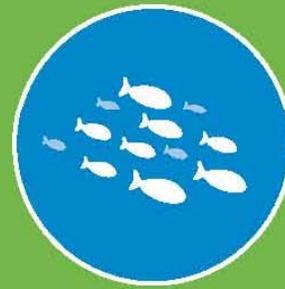
# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)



# GREEN INFRASTRUCTURE CHALLENGE

See "Video" link at:  
[dcwater.com/greenchallenge](http://dcwater.com/greenchallenge)

# Congratulations to our Winning Teams!

---

- ***21<sup>st</sup> Century Stormwater Management in a 19<sup>th</sup> Century Neighborhood***  
Submitted by Team AECOM
  - Participating Firms: AECOM, KPG Design Studio, GeoConcepts Engineering, Prime Engineering, CDDI
- ***Greening the District's Geometry: Enhancing L'Enfant's Plan***  
Submitted by Team CH2M HILL
- ***Kennedy - Greened: A Neighborhood Green Street Project***  
Submitted by Team Urban Rain Design - Nitsch Engineering - Stacy Levy - Raymond Papa
- ***Lamont Park: Integrating Green Infrastructure and Bike Infrastructure***  
Submitted by Team Tetra Tech
  - Participating Firms: Tetra Tech, Toole Design Group, Hazen and Sawyer
- ***A Stormwater Park System***  
Submitted by Team Bradley Site Design – Greening Urban
- ***Symbiotic Streetscapes***  
Submitted by Team McKissack
  - Participating Firms: McKissack and McKissack, Bradley Site Design, Greening Urban
- ***Utilizing Lost Urban Space***  
Submitted by Team ARCADIS
  - Participating Firms: ARCADIS, RTKL, Biohabitats, EQR, Delon Hampton & Associates, NSP Regreen, Robinson and Associates, Geoconcepts Engineering



# Evaluation Panel

---

- Thank you to the District Agencies and Industry Experts for serving on the Evaluation Panel



# Congratulations to our Winning Teams!

---

- ***21<sup>st</sup> Century Stormwater Management in a 19<sup>th</sup> Century Neighborhood***  
Submitted by Team AECOM
  - Participating Firms: AECOM, KPG Design Studio, GeoConcepts Engineering, Prime Engineering, CDDI
- ***Greening the District's Geometry: Enhancing L'Enfant's Plan***  
Submitted by Team CH2M HILL
- ***Kennedy - Greened: A Neighborhood Green Street Project***  
Submitted by Team Urban Rain Design - Nitsch Engineering - Stacy Levy - Raymond Papa
- ***Lamont Park: Integrating Green Infrastructure and Bike Infrastructure***  
Submitted by Team Tetra Tech
  - Participating Firms: Tetra Tech, Toole Design Group, Hazen and Sawyer
- ***A Stormwater Park System***  
Submitted by Team Bradley Site Design – Greening Urban
- ***Symbiotic Streetscapes***  
Submitted by Team McKissack
  - Participating Firms: McKissack and McKissack, Bradley Site Design, Greening Urban
- ***Utilizing Lost Urban Space***  
Submitted by Team ARCADIS
  - Participating Firms: ARCADIS, RTKL, Biohabitats, EQR, Delon Hampton & Associates, NSP Regreen, Robinson and Associates, Geoconcepts Engineering

