

*Briefing on:*

*Green Infrastructure  
National Certification Program*

*Briefing for:*

*CWEA Fall Seminar:  
Management of Constructed Assets*



**October 21, 2015**

# Overview

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- Background
  - DC Water's Consent Decree Modification
  - Green Infrastructure Jobs MOU
- Current Standards for GI Construction, Inspection and Maintenance
- Proposed Certification Program and Scope



# DC Water's DC Clean Rivers Project

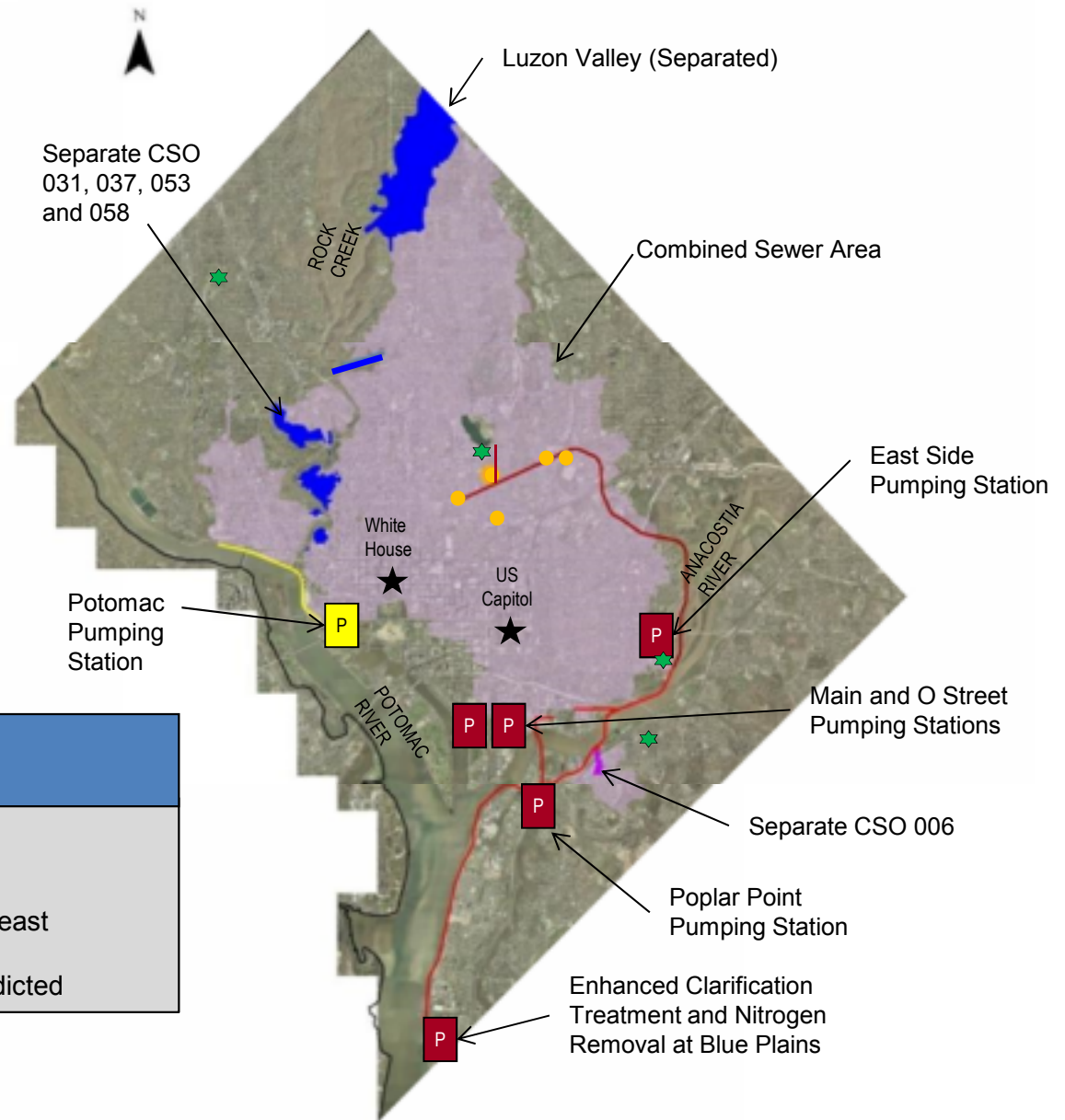
## Before Consent Decree Modification

**LEGEND**

-  Anacostia River Tunnel System
-  Potomac River Tunnel
-  Piney Branch Tunnel
-  Pumping Station Rehabilitation
-  Known Flood Area
-  Green Infrastructure at DC Water facilities

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

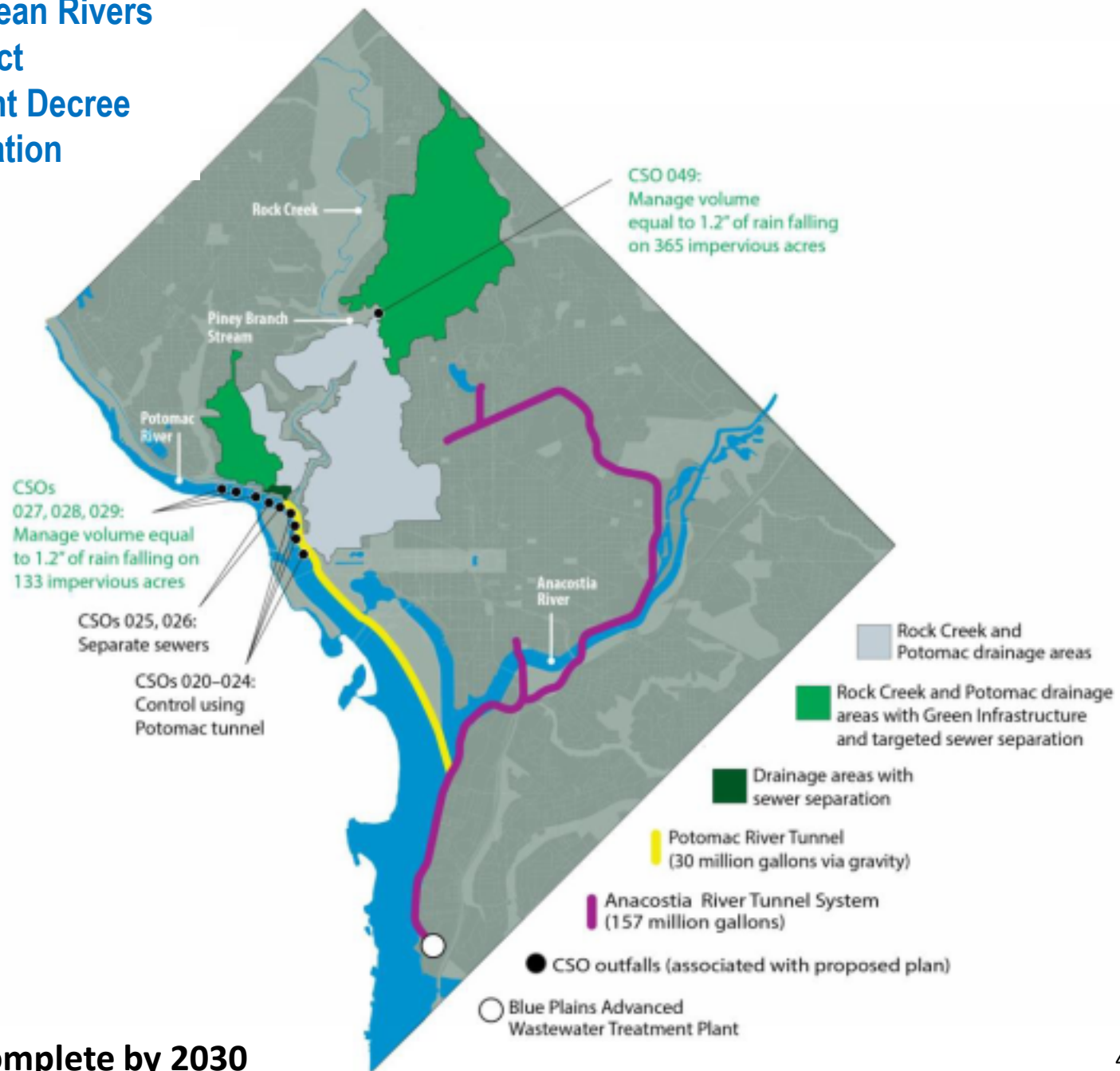
- DC Clean Rivers Project: \$2.6 Billion
- Nitrogen Removal: \$950 Million
- Total > \$ 3.5 Billion
- 96% reduction in CSOs & flood relief in Northeast Boundary
- Approx 1 million lbs/yr nitrogen reduction predicted



**Complete by 2025**

# DC Water's Clean Rivers Project

## After Consent Decree Modification



Complete by 2030



# Background:

## DC Water's Consent Decree Modification Status

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- Department of Justice lodged Modified Decree May 20, 2015
- U.S Gov. public comment period ended July 27, 2015
- U.S. Government will respond to comments and recommend entry of Consent Decree to Court
- Looking forward to autumn 2015 entry of Consent Decree
- Consent Decree Modification includes fixed calendar dates → requires moving ahead with implementation now



# Background: Memorandum of Agreement

- Green Jobs Memorandum of Agreement
  - District of Columbia and DC Water
- Overall Goal
  - 51% of new jobs created by contracts or procurements entered into by DC Water with third parties to implement GI required by modified decree are filled by District residents
  - Applies to professional services, construction, inspection and maintenance activities
  - Includes certification program and training

Graduates of  
Pilot Green Roof  
Maintenance  
Training Program



MOA Available at: [dcwater.com/green](http://dcwater.com/green) ('Resources' Section)

# Background: Memorandum of Agreement (continued)

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- Executed May 20, 2015 by District and DC Water
- Obligations in MOU:
  - DC Water Works
  - DC Resident Outreach
  - **GI Certification Standards** →
  - District Job Training Programs
  - Use of Facilities for Training
  - Mentor/ Internship Program
  - Use of GI Certified District Residents
  - District Resident Hiring Preference
  - Certified Business Enterprises (CBEs)
- DC Water:
  - Select and fund third party to develop certification and training standards for GI construction, inspection and maintenance
  - Develop standards for certification of training programs for trainees to obtain certification
  - Develop training materials
  - Develop process for certifying third party trainers
  - Develop process for tracking & maintaining certified contractors/inspectors/maintainers
  - Funding not less than \$600,000 total during calendar years 2015, 2016, and 2017



# Background: The Need for National GI Certification

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- Nationally, many drivers exist for GI construction and maintenance:
  - Regulatory Drivers (CSO communities, MS4 communities, NPDES permits, etc.)
  - Sustainability Rating Systems (LEED, Sustainable Site Initiative, Envision, etc.)
  - General trends towards sustainability and GI
- Risks exist for GI failure/lack of performance due to poor construction or lack of/inappropriate maintenance:
  - Replacement or remediation
  - Fines due to compliance issues
  - Stakeholder/outreach challenges



# Current Standards: GI Construction, Inspection, and Maintenance

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- Some training programs exist, particularly for stormwater
  - Only provide certificate
- No national certification program exists for GI construction and maintenance
  - Provides opportunity for baseline skillsets to ensure GI performance
- GI and stormwater controls are becoming more common and will substantially grow in future
- There is a need to establish minimum standards and assure workers have skill sets required for GI to be effective over long term
- Creating a National Certification creates a long term pathway for living wage jobs and will benefit DC Water, other peer jurisdictions, and the profession



# Certification Program: Benefits of National GI Certification

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- Development led by utilities to ensure Program supports long-term sustainability of GI in our communities
- Based upon best management practices developed from collective experiences by utilities from all over the country
  - Also includes regional and local considerations (i.e. climate, soils, etc.)
- Focus on developing a competent, skilled work force with many benefits...



# Certification Program: Proposed Vision

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- Comprehensive Program
  - Led by independent, national third-party organization with respected stormwater credentials
  - Implemented nationally in jurisdictions with GI programs
- Standards for GI Construction, Maintenance, and Inspection
  - Supports long-term performance of GI facilities
  - Covers full life-cycle of GI
- Certification not Certificate
  - Establishes career path for GI workers
  - (construction, maintenance, inspection)
  - Creates credential to support livable wages
- Long-Term Sustainability/Viability
  - Contract requirements for GI workers to hold certification
  - National model rolled-out regionally to ensure local requirements are achieved and national program is sustainable → DC Water to serve as first regional roll-out



Pilot Green Roof Maintenance Training Program

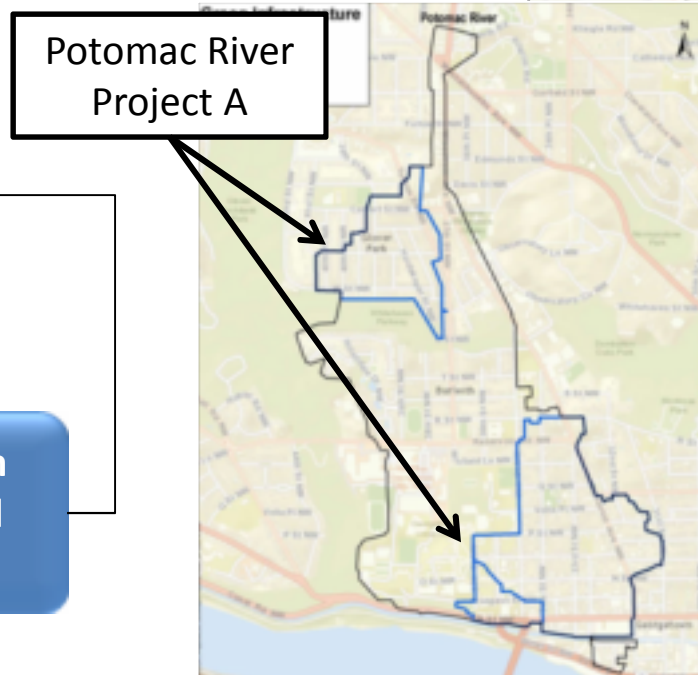
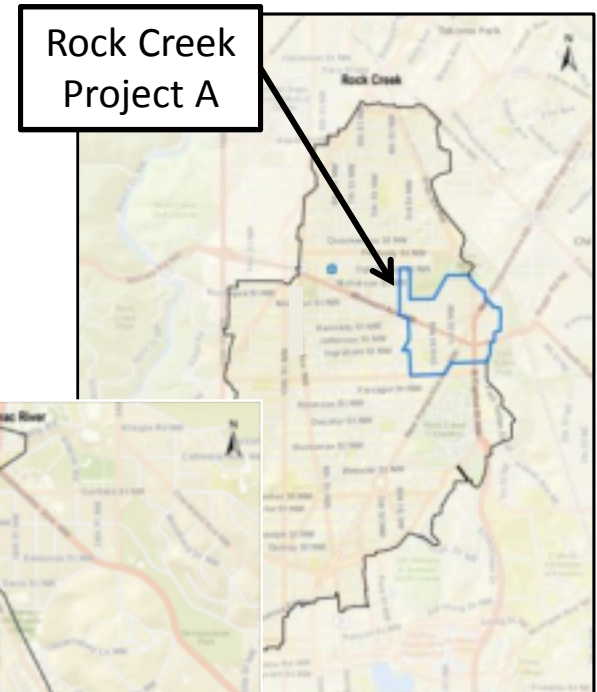
# Certification Program: DC Water's Schedule Drivers

- Consent Decree Modification requires DC Water to construct 3 projects in the Potomac and 5 projects in Rock Creek (total 500 impervious acres ± managed)

- Deadlines for first project in each sewershed:

- Rock Creek Project A:  
Award Construction 3/30/17
- Potomac River Project A:  
Award Construction 6/23/17

Goal is to have certification in place and first group certified for these projects





# Certification Program: Water Environment Federation (WEF)

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- WEF is a globally recognized leader in stormwater & water quality
  - Membership across US and in over 35 countries
  - Over 34,000 members
    - Over 7,000 who specialize in stormwater
  - Technical education and training leader in water quality since 1928
    - WEF Stormwater Institute
    - Annual WEF Stormwater Congress
    - Technical Publications, Online Courses, Webcasts
  - Active in certification issues for over 40 years
  - Also active in policy, regulatory, and advocacy efforts





# Certification Program: Scope of Work and Schedule

Task	Description
Need to Know Criteria Development	<ul style="list-style-type: none"> <li>• Perform job analysis and develop blueprint for exam</li> </ul>
Curriculum Development	<ul style="list-style-type: none"> <li>• Develop (or edit existing as available) curriculum</li> </ul>
Exam Development and Administration	<ul style="list-style-type: none"> <li>• Write, review, and analyze test questions</li> <li>• Assemble operational test</li> <li>• Maintain test exam database</li> <li>• Administer tests</li> <li>• Create and maintain exam results database</li> </ul>
Website and Certification Tracking	<ul style="list-style-type: none"> <li>• Provide information regarding the Program (certification process, renewal requirements)</li> <li>• Provide reports to identify certified individuals</li> </ul>

## **Schedule:**

Late 2016: First Technical Training  
Early 2017: First Certification Exam



# Next Steps: Green Infrastructure Implementation

- **Potomac River Project A / Rock Creek Project A**
  - Identification of project areas have been defined
  - Selection criteria includes:
    - Feasibility of Design and Construction
    - Synergy with DC Agencies (DDOT, DOEE)
    - Maximized Volume Capture
    - Maximizing Triple Bottom Line Benefits
    - Pre- and Post- Construction Monitoring
    - Minimized Cost
    - Compatibility with neighborhood needs and aesthetics
    - Facilitation of Maintenance



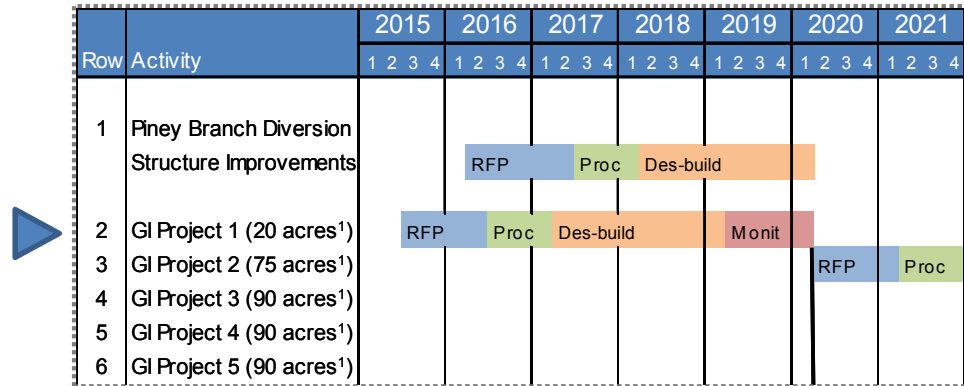
Potomac River GI Project Area



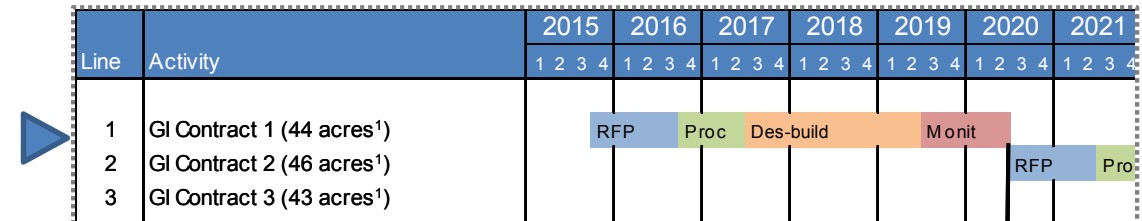
Rock Creek GI Project Area

# Next Steps: Green Infrastructure Implementation (continued)

- Rock Creek Project A:
  - **RFP Development:**  
2015 – mid 2016
  - **Procurement:**  
mid 2016 – early 2017
  - **Design-Build:**  
early 2017 - 2019
  - **Monitoring:**  
2019 – 2020



- Potomac River Project A:
  - **RFP Development:**  
2015 - late 2016
  - **Procurement:**  
late 2016 – mid 2017
  - **Design-Build:**  
mid 2017 - 2019
  - **Monitoring:**  
2019 - 2020



# Questions?

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### **Industry Outreach Meeting**

for Potomac River Project A and  
Rock Creek Project A on  
November 13, 2015

