



December 10, 2012

## **Clean Rivers, Green District**

### **Green Infrastructure Partnership Agreement**

District of Columbia Water and Sewer Authority, U.S. Environmental Protection Agency,  
and the Government of the District of Columbia

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#### **Introduction**

The U.S. Environmental Protection Agency (EPA), the District of Columbia Water and Sewer Authority (DC Water), and the Government of the District of Columbia (District) are joining in a partnership to advance Green Infrastructure for urban wet weather pollution control. This Agreement demonstrates the parties' strong support for sustainable stormwater management yielding multiple benefits for community livability and other urban environment improvements. This Agreement also demonstrates DC Water's and the District's commitment to Green Infrastructure (GI).

DC Water is moving forward with the design and construction of a system of tunnels and related facilities in the Anacostia watershed to capture, store and convey combined sewer flows to the Blue Plains Advanced Wastewater Treatment Plant in accordance with the 2005 federal Consent Decree (Consent Decree) with EPA. DC Water now proposes to expand its commitment to GI and has invested significant resources and engaged a broad group of stakeholders to prepare a draft Green Infrastructure Project Plan (GI Project Plan). This plan has been submitted to EPA for review.

The GI Project Plan advances DC Water's proposal to conduct a large-scale, multi-million dollar GI demonstration project (GI Demonstration Project or GI Project) in the Potomac and Rock Creek watersheds for the purpose of evaluating the practicality and efficacy of implementing GI for the control of combined sewer overflows (CSOs) in these watersheds. The GI Project Plan proposes a comprehensive approach to the GI Demonstration Project, including GI site selection, identification and resolution of institutional issues and obstacles, public outreach, design and construction, monitoring and evaluation, and the preparation of a series of technical memoranda that detail every aspect of the GI Demonstration Project.



Following completion of the GI Demonstration Project, as informed by a preliminary screening analysis, DC Water proposes to use the project's findings to conduct an analysis of alternative green and green/gray infrastructure controls (Alternatives Analysis) with the goal of identifying alternative solutions for each of the two watersheds that, compared to present plans laid out in the Consent Decree, would be consistent with the CSO Control Policy, potentially more sustainable, and capable of yielding a range of additional benefits to the community. If such feasible alternatives are identified, the Alternatives Analysis would provide the foundation for proposing changes to DC Water's Long Term Control Plan (LTCP).

EPA and the District strongly support GI approaches to meeting wet weather challenges. This partnership agreement memorializes EPA's and the District's commitment to encourage and support DC Water's efforts to explore how GI could meet or help to meet its CSO Control Policy obligations under the Clean Water Act and to work with DC Water to overcome obstacles to moving this initiative forward expeditiously.

This Partnership Agreement fosters principles articulated in EPA's "Integrated Municipal Stormwater and Wastewater Planning Approach Framework", dated June 5, 2012. Specifically, it integrates the storm water management obligations of the District with combined sewer overflow control obligations of DC Water.

## GI Projects Already Completed or Underway in the District

This Agreement builds upon a number of GI projects by both the District and DC Water that have either been completed or are now underway. Some of these projects are supported with financial and technical assistance from EPA and other federal agencies.

The most significant District of Columbia's projects include:

- **Green Streets Initiative** – A project to revitalize major urban corridors in the District by improving transportation, encouraging private investment, and providing environmental benefits through incorporating GI practices into the streetscape.
- **Green Infrastructure Demonstration Projects** – A variety of transportation projects across the District that incorporate GI to better understand how GI can be blended into the streetscape to realize the many benefits of green.
- **Street Trees, Park Trees, and Planting Spaces** – District agencies are working together to incorporate GI into District projects (Impervious Surface Reduction Project, Green Median Renovation Project, and Tree Canopy Renovation Project) to reduce storm water runoff and increase the urban tree canopy within the District's combined sewer system.



- **RiverSmart Washington Project** – A project designed to determine the extent to which uncontrolled storm water is reduced by a suite of GI retrofits in three District sewersheds. The project consists of RiverSmart Homes, RiverSmart Communities, RiverSmart Rooftops, Municipal Green Roofs, and RiverSmart Schools.

In addition to providing funding support for a variety of GI projects undertaken by the District of Columbia and others in the District, DC Water has undertaken or is committed to several GI projects of its own, including:

- **Conducting a rain barrel demonstration project** to reduce runoff to the combined sewer system.
- **Constructing a rain garden and bio-retention area at Irving and North Capitol Streets** as part of a Supplemental Environmental Project to reduce runoff to the combined sewer system.
- **Constructing an infiltrating tree pit, permeable pavers and native landscaping at the Bryant Street Pumping Station** as part of the rehabilitation of this pumping station.
- **Constructing permeable pavers and a grass swale at the Eastside Pumping Station** as part of the rehabilitation of this pumping station.
- **Constructing green roofs and bio-retention** at three of its facilities.

## Partnership Actions and Agreements

### Green Infrastructure Screening Analysis and GI Project Plan Refinements

In order to provide additional information on the feasibility of using GI alone or in combination with gray controls for CSO control, DC Water has conducted a preliminary screening analysis of the feasibility of alternative scenarios for incorporating GI into the CSO controls for the Potomac and Rock Creek. With input from EPA, DC Water will use the information generated by the screening analysis to refine the GI Project Plan to focus on sewersheds where GI has the best possibility of providing, or being part of, an integrated solution for controlling CSOs. This analysis was submitted to EPA on July 11, 2012.



## **The GI Demonstration Project and the Roles and Responsibilities of DC Water, the District of Columbia, and EPA**

As described in more detail below (Coordination on Consent Decree Amendments), the parties have agreed to work together to put in place the framework needed to accommodate and facilitate the GI Demonstration Project. Once this framework is in place, DC Water will proceed with the GI Project in accordance with the final GI Project Plan, including site selection, identification and resolution of institutional issues and obstacles, public outreach, design and construction, monitoring and evaluation, and preparation of a series of technical memoranda to be submitted to EPA and the District for review. DC Water has also agreed to proceed with preparation of the Environmental Impact Statement (EIS) required for the Potomac Storage Tunnel while the GI Demonstration Project and Alternatives Analysis are underway.

While DC Water will be responsible for conducting the GI Project, EPA and the District will assume responsibilities in support of DC Water's efforts that will be of critical importance to the success of the GI Project, including, but not limited to:

- Participating in developing and implementing a Green Design Challenge, which will engage the private sector and other interested parties in projects to demonstrate the practicality and efficacy of decentralized, large-scale and small-scale GI for the control of stormwater;
- Enlisting participation by public and private organizations in a collaborative effort to develop and demonstrate next generation GI designs and techniques;
- Facilitate participation by local academic institutions in various aspects of the GI Demonstration Project;
- Actively involving the environmental community in design and development of the GI Project to facilitate implementation; and
- Reviewing and providing input on DC Water's technical memoranda and reports.

DC Water has agreed to provide funding, as needed, to assist the District with its cost of participating in the GI initiative.

Throughout this initiative, DC Water, EPA, and the District will work closely together to review and assess the water quality benefits and impacts of alternative green and gray/green controls compared to the benefits and impacts of the controls now required in the Potomac and Rock Creek watersheds to ensure that the GI Project, water quality review and assessment, and Alternatives Analysis conform to EPA's expectations and Clean Water Act requirements.





Keeping in mind that the GI Project is also designed to facilitate implementation of GI in those parts of the District served by the separate storm sewer system and to integrate the stormwater management obligations of the District with the combined sewer overflow control obligations of DC Water, the District and DC Water will also consult with each other on a continuing basis to ensure that (1) the GI Demonstration Project designs, data, and results can be used by the District to promote and advance the widespread use of GI in those parts of the District served by separate storm sewers; and (2) the data and information developed in connection with the District's RiverSmart Washington GI project and other GI project work experience is applied to DC Water's GI Project.

To ensure that the results of the GI Project serve to advance GI implementation nationwide, EPA will (1) communicate with EPA's Office of Research and Development (ORD) on the progress of the GI Demonstration Project and opportunities for ORD's involvement, and (2) assist DC Water in sharing the results of the GI Demonstration Project work so that other communities nation-wide can benefit from DC Water's experiences.

DC Water's proposal to extend the deadlines for undertaking design and construction of the Potomac and Piney Branch (Rock Creek watershed) tunnels and related facilities includes "decision points" where DC Water would be required to end the GI Project and revert back to the Consent Decree schedule for designing and constructing the Potomac and Piney Branch tunnels, and related facilities, if specified criteria are not achieved. The decision points would be designed to ensure that the deadline extension will continue only if the GI Project is on track to produce the level of protection consistent with the CSO Policy and reflected in the preliminary screening analysis.

DC Water envisions proposing the use of decision points at key phases in the process, such as at the completion of the construction of the GI Project itself and after post-construction monitoring has been completed. In addition, an early decision point focusing on the identification and resolution of institutional issues and obstacles to GI implementation will be scheduled. This institutional decision point may consider (1) the extent to which reviews, permits and approvals required for the installation of individual GI demonstration projects have been completed for lands controlled by District departments and agencies; (2) the extent to which review and revision of District regulations, ordinances, and codes related to streets, sidewalks, and public and private property to identify necessary changes to mandate GI retrofit requirements required to implement the GI Project Plan have been completed; (3) the extent to which institutional impediments to large scale GI have been resolved; (4) an evaluation of impervious area fee incentive programs to incentivize GI implementation has been completed; and (5) the extent to which District departments will commit to revising capital expenditure plans to prioritize GI retrofits in priority areas. The District will play a critical role in achieving the institutional modifications required for the GI Project to proceed beyond the early planning phases.



## Coordination on Consent Decree Amendments

DC Water and the District believe that the deadlines in the Consent Decree for the Potomac and Piney Branch tunnels and related facilities will need to be extended to accommodate a demonstration project of this scale. DC Water and the District recognize that the data from the GI Demonstration Project must be collected and evaluated before it can be determined whether to proceed with full-scale GI implementation. Accordingly, DC Water will file a request to modify the affected deadlines pursuant to Section VII of the Consent Decree (Modifications to Selected CSO Controls and Schedules) to allow the GI Demonstration Project to proceed. Therefore, in order to expedite the consideration of the GI Demonstration Project, the parties have agreed to the following process for amending the Consent Decree.

- DC Water will notice the proposed Consent Decree modification package for public comment within 60 days of receiving EPA's comments on the draft Consent Decree modification package. DC Water will perform the following public outreach at a minimum:
  - Make the modification package available on DC Water's web site;
  - Advertise legal notices in at least two local papers and customer invoices;
  - Allow a minimum of 60 days public comment;
  - Hold at least one public meeting to explain the proposed modification and take comments; and
  - Receive public comments via mail, e-mail and fax.
- DC Water will prepare responses to comments received from EPA and the public and will revise the Consent Decree modification package as appropriate and submit the final package to EPA no later than 21 days after close of the public comment period.
- EPA will expeditiously review the modification package (including the public comments and DC Water's response to the comments) to determine if the GI Demonstration Project can reasonably be expected to lead to implementation of green or green/gray controls that will provide for compliance with the applicable requirements of the CSO Control Policy. Thereafter, EPA will make a recommendation to the U.S. Department of Justice concerning whether it supports or does not support the proposed Consent Decree amendments.





As is standard procedure, the United States will review the proposed Consent Decree amendments and determine whether or not to support the proposed amendments. In the event the United States makes a determination to support the proposed Consent Decree amendments, the United States will move to amend the Consent Decree pursuant to its usual procedures and Paragraph 101 of the Consent Decree. In the event the Court approves the amendments, DC Water shall begin implementing the GI Demonstration Project pursuant to the court-approved schedule. The United States will make a substantive determination as to whether or not to recommend modification of the existing CSO controls in the Consent Decree through a subsequent modification upon review of the outcome and data from the GI Demonstration Project and such modification, if any, will be the subject of a later amendment to the Consent Decree. If the United States notifies DC Water that it does not support the proposed Consent Decree amendments or if the Court refuses to approve the proposed Consent Decree amendments, this Agreement will be terminated and DC Water will discontinue the GI Demonstration Project and proceed with implementation of the CSO controls for the Potomac and Piney Branch storage tunnels now required by the Consent Decree.


### Ongoing Communication and Coordination

Representatives of EPA, DC Water and the District will meet periodically to assess the goals and commitments of this Partnership Agreement to evaluate and assure progress. The parties will each identify key individuals who will be responsible for advancing this Agreement. Other partners critical to the success of this effort, such as non-governmental organizations, will be engaged to assist and help assess progress.

It is the intent of the parties to work diligently to implement this Agreement. The commitment to ensure that Green Infrastructure, as part of the Clean Rivers, Green District initiative, meets the requirements of the Clean Water Act and is legally authorized and protected is acknowledged by the parties. Should either EPA, DC Water, or the District determine that it is unable to continue participation in this Agreement, it may terminate this Agreement by notifying the other parties in writing. The parties have voluntarily entered into this Agreement and therefore agree that it does not modify their respective legal rights or obligations.

  
 Shawn M. Garvin  
 Regional Administrator  
 U.S. EPA

  
 Vincent C. Gray  
 Mayor  
 District of Columbia

  
 George S. Hawkins  
 General Manager  
 DC Water