



**DC ENVIRONMENTAL
NETWORK**

April 28, 2012

George S. Hawkins
General Manager
DC Water
5000 Overlook Avenue, SW
Washington, DC 20032

**RE: Questions to DC Water on the Green Infrastructure
Project Proposal**

Dear George:

Thank you so much for agreeing to participate in our May 3rd discussion on DC Water's Green Infrastructure Project proposal.

We believe many in the District, including the Mayor and DC Council, currently do not (but should) have a more detailed understanding of what the costs and benefits might be before anyone recommends amending the 2005 Consent Decree with the Environmental Protection Agency (EPA).

Many of us who attended your February 29th Green Infrastructure Summit appreciated your willingness to try and come up with creative solutions to increase green infrastructure, create jobs and reduce costs to DC Water ratepayers, but came away with more questions and concerns.

In preparation for our discussion and for future communication on this important proposal, Earthjustice, Anacostia Watershed Society, Audubon Naturalist Society, Rock Creek Conservancy, Sierra Club, DC Environmental Network and others have come up with a preliminary list of questions.

We are not expecting, nor will we have time, to dig into every one of these questions next week, but we thought it would help you prepare.

Signatories:

Anacostia Riverkeeper

**Anacostia Watershed
Society**

**Audubon Naturalist
Society**

Casey Trees

**Center for Biological
Diversity**

Clean Water Action

**DC Environmental
Network**

DC Greenworks

Earthjustice

Friends of the Earth

Global Green USA

Potomac Riverkeeper

Rock Creek Conservancy

**Sierra Club,
Washington, DC Chapter**

****We may update this
list of signatories over
the next week.***

Our Preliminary Questions:

PILOTS:

1. In the consent decree signed in March 2005, DC Water agreed to conduct a \$3 million pilot LID program primarily at DC Water facilities. Although those projects will not be completed until 2014, does DC Water have any preliminary findings or evaluations or unanticipated barriers that might inform the current LID discussion?
2. Has DC Water carefully reviewed the Philadelphia studies, and recent agreement between the City of Philadelphia and EPA, which is based on a similar plan to aggressively implement green stormwater techniques in certain neighborhoods and then to study their potential to avoid other CSO infrastructure? If so, how does the DC Water proposal compare with the Philadelphia- EPA agreement?

PUBLIC OUTREACH:

3. How will your DC Water- CSO plan be subject to public review, comment, collaboration, and input for revisions in the future? In other words, what will be your accountability, openness, and public review and participation procedures and commitments?

LOW IMPACT DEVELOPMENT (LID):

4. Can you provide more detail on your plans or concepts for LID pilot projects? Do you have specific projects identified, or is this still only in the concept stage?
5. Rock Creek Conservancy has also installed numerous LID projects on residential property, and it is very labor intensive and subject to strong homeowner preferences. For wide-scale adoption of LID in residential areas, would DC Water be prepared to take on a much more comprehensive and likely unpopular approach to LID? Without that, can LID actually make a difference?
6. How does WASA plan to address the overflows that will occur even with full-size tunnels, and are those being considered as an opportunity to aggressively deploy LID while also implementing the LTCP as planned?
7. How will the findings of the RiverSmart Washington study, which includes a field test of LID in the Piney Branch subwatershed, be used? What additional study, if any, would be needed to determine whether LID could be a full or partial solution for the Piney Branch tunnel? When would the information be needed?
8. The 2005 Consent Decree allows you to base a proposal to lower the capacity of the Potomac and Rock Creek Tunnels on any relevant data on LID. What information have you gathered and analyzed for this purpose?
9. Have you studied the maximum potential for LID in the Potomac/Rock Creek sewershed from a technical perspective (i.e. without regard to political and financial constraints)?
10. Some LID studies have indicated that most LID programs typically contain about a 0.5 inch rainfall event before discharging as storm water. National Airport measurements indicate that a typical 2 year storm might measure 0.85. Some climate experts have

predicted that as a result of climate change, storms might increase in both severity and duration. Do these facts indicate that LID alone may not be adequate to contain storm water flows to Piney Branch?

11. The geology of the various sewer sheds varies dramatically. Would diverting storm water to groundwater increase the risk of groundwater infiltration of basements?
12. Has DC Water explored a large-scale regenerative stormwater conveyance or other similar projects in Rock Creek Park, coupled with LID?
13. Rock Creek Conservancy is conducting a downspout disconnect pilot program and have found minimal interest in voluntary disconnects, regardless of whether we perform the disconnect or provide rebates. Our research indicates that only jurisdictions with mandatory disconnects have a successful disconnection program. Would DC Water push for mandatory disconnects in CSO service areas as part of a LID initiative?
14. What does the Casey-Trees - Limno Tech Green Build Out Model tell us about the opportunity to aggressively apply green infrastructure practices in certain sewersheds and then to potentially downsize planned combined sewage storage projects?

INTENSIVE GREENING & DEEP TUNNEL HYBRID:

15. Have you and your consultants studied whether and to what extent, the combination of intensive greening plus deep tunnel storage could work together to perform better as a system, than either option would perform alone? (This is especially relevant to the Anacostia portion.)

PROJECT COSTS:

16. How would this project be funded?
17. According to the Final LTCP report, in the nine month period between November, 1999 and July, 2000, Piney Branch CSO #49 discharged 14.7 million gallons of combined sewer overflow to Piney Branch Creek. The sewer shed area is about 2,399 acres. A 2001 Memo by Greeley and Hansen indicates the cost of treating an estimated 13 percent of the pervious surface in this sewer shed, containing 0.5 inches of rainfall would be about \$128,000 an acre or about \$39 million for the sewer shed. How does this cost of LID in the sewer shed containing only 0.5 inches of rainfall, compare to the cost of the Rock Creek Tunnel with a capacity of 3.8 million gals with an estimated 4 overflows a year?

DELAY:

18. The DC Water proposal indicates that there would be an eight year delay in compliance under the consent decree, during which time DC Water would undertake a multimillion dollar effort to demonstrate LID. What would be the measurements of success of this project?
19. As outlined by DC Water, this Green Infrastructure proposal might require significant coordination with DC and Federal Agencies as well as private landowners. Typically, if past projects are any guide, delays are likely. Because many of these delays might be

beyond the control of DC Water while overflows continue, what assurance can DC Water provide to ensure that further progress on curtailing overflows in a reasonable time frame is achieved? How would responsibilities and decision-making be delineated?

20. Have you done an environmental assessment of your plan, to study the harm to the River from 8 years of CSOs versus the benefits of LID pilot projects?
21. If your proposed 8-year delay is not granted, will you nonetheless take actions that demonstrate a commitment to LID?
22. In order to partially mitigate for the potential 8-11 year delay in reducing most CSOs on the Potomac side under your plan, and in addition to pilot projects, would DC Water consider doing supplemental LID in the Anacostia watershed, as well as the Potomac and Rock Creek?

ENVIRONMENTAL JUSTICE:

23. Has DC Water considered how the allocation of Green infrastructure to reduce the Potomac and Piney Branch tunnels will be done exclusively in more affluent communities?
24. Currently the rivers in the District are suffering from CSOs, in large part due to loads from other jurisdictions. What are you going to do to make sure they pay their fair share of the LID needed to eliminate CSOs?

GLOBAL CLIMATE CHANGE:

25. Have you engaged climate modelers and predictions to inform your plans - regarding the intensity, duration and frequency of storm patterns predicted for the District in the next 10 to 50 years?
26. Have you studied how many more CSO events will occur because of the increased precipitation under global climate change, including the increased rates already occurring compared to the LTCP design years (1998-2000)?

ALTERNATIVES:

27. Has DC Water given adequate consideration to other rainwater storage or management besides Green infrastructure, such as gravel bedding in the roads, mechanical dams in trunk lines that can be activated, collection and injection into groundwater, diverting flows to existing surface water storage, that combined with green infrastructure, water conservation, and other building reuse would result in the same storage capacity as the tunnels but for less funds, less delay, and off the grid?"
28. In order to reduce discharges to the Anacostia would DC Water consider pumping a portion of the treated effluent from Blue Plains back to Prince Georges County in the existing force main and discharge it in the river to increase the flushing and instantly improve water quality?

We are all very excited about making progress expanding green infrastructure in the District, something the local environmental community has championed for well over a decade.

Thank you in advance for any attention you give to our questions and concerns. We look forward to continuing this discussion with you sometime soon.

Sincerely,

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DC Environmental Network

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Global Green USA

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Director of Advocacy
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Cc: Mayor Vincent Gray, Chairman Kwame Brown, DC Council, Christophe Tulou (DDOE)