

SENATE HEARING

**A RENEWED COMMITMENT TO PROTECTING
THE CHESAPEAKE BAY:
REAUTHORIZING THE CHESAPEAKE BAY PROGRAM**

**U.S. SENATE
ENVIRONMENT & PUBLIC WORKS COMMITTEE
SUBCOMMITTEE ON WATER & WILDLIFE**



**TESTIMONY OF GEORGE S. HAWKINS, ESQ.
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**MONDAY, AUGUST 3 AT 2:00 P.M.
DIRKSEN SENATE OFFICE BUILDING, ROOM 406**

Good afternoon, Senator Cardin, and members of the Subcommittee on Water & Wildlife of the Environment and Public Works Committee. I am George Hawkins, Director of the District Department of the Environment (DDOE). Thank you for the opportunity to present testimony at this Senate Hearing on the restoration of the Chesapeake Bay.

- I want to reaffirm the District's profound commitment to cleaning up the Chesapeake Bay – primarily by cleaning up the Anacostia and Potomac Rivers, which flow into the Bay.
- It has been said that the Chesapeake Bay might be the most studied body of water in the world. Certainly, there have been decade-long programs, extensive scientific modeling, and multiple types of efforts towards restoring this precious resource. None of us is happy to see the Bay in its current unhealthy state. But the District can and will become a model for re-doubling efforts in our own tributaries to deliver fewer pounds of nitrogen, phosphorous and sediment to the Bay. We came to realize that the 10-year timeframes were not working. So we recently adopted quantifiable commitments and activities to be carried out in 2-year increments – called '2-Year Milestones.' With the use of these critical milestone projects, we plan to accelerate significantly the pace of Bay restoration.
- I want to acknowledge that the District has been an active player in Chesapeake Bay program activities since the early 1980s, when Bay agreements were first signed. One key distinction is that the District is both a Bay signatory *and* a local government, giving us a unique role in Bay and Anacostia restoration. We signed the *Chesapeake 2000 Agreement* as a 'state;' however, we implement the necessary codes and regulations as a local government.
- With this local government perspective, since it will ultimately help the Bay, I am eager to use our urban 2-year milestones to help guide us in restoring our local rivers. As Governor Kaine (Chair of the Bay Executive Council) urged us to do last fall, we are accelerating our actions -- as laid out in our 2-year milestones, and as contained in Mayor Fenty's "DC Green Agenda".

District of Columbia Restoration Efforts To Date

- I would like to point out that the District of Columbia not only met, but also exceeded the 1985 goal of reducing by 40% the levels of nitrogen and phosphorous being discharged into our waters. We accomplished this major achievement ahead of the anticipated schedule, and

we are on track to continue making further pollutant reductions ahead of schedule. By extending efforts to the very limits of technology, in the mid-1980s, Blue Plains was the first facility to reduce drastically phosphorous pollutants and by implementing biological nitrogen removal (BNR) technology, the District was also first to meet the 40% total nitrogen (TN) reduction goal set by the Bay Partnership,.

How to Accelerate Progress?

- In addition to our 2-year milestones, we also rely heavily on our MS4 (stormwater) permit, as issued by EPA. EPA referred to our current permit as one of the most aggressive in the nation, and we are due in August to receive an even tougher and more innovative permit for the next 5 year cycle. Many of the commitments made in our permit are also found in our 2-year milestones. The permit is a working tool with binding authority to tackle the tough non-point sources that plague ultra urban areas such as DC.
- In addition to these tools, we are held accountable by our Anacostia CapStat – which contains measurable and quantifiable programs and activities carried out citywide across agencies.
- Being able to meet our commitments to date is largely attributable to work occurring at the world’s largest advanced wastewater treatment plant and a major player in the Bay’s restoration efforts, Blue Plains.-. Of the city’s 1.4% nitrogen load, Blue Plains Advanced Wastewater Treatment Plant contributes 90 % of the total nitrogen load from the District, so I cannot overstate the imperative of funding and implementing nutrient technology controls there.
- Blue Plains is the largest publicly owned treatment plant in the Bay watershed, and DC, along with our Maryland and Virginia partners, strives to develop the most advanced, progressive, state-of-the-art technologies specifically for nitrogen removal. In fact, part of the reason we were able to meet our commitment to date is because of the District of Columbia Water and Sewer Authority’s (WASA) efforts to implement nutrient removal technology, including both enhanced and biological nutrient reduction measures (both ENR and BNR). The city’s Long Term Control Plan is also a key element of the Anacostia River and Bay restoration.

- To meet the latest proposed mandates for total nitrogen removal at Blue Plains that are required by the Environmental Protection Agency, WASA has developed a plan to install Enhanced Nitrogen Removal (ENR) technology at Blue Plains at a cost of nearly \$1 billion. Blue Plains will reduce nitrogen to near the limits of technology with this ENR, but at a very substantial cost.
- I am happy to report that the District is on the cutting edge of this ENR process to achieve even more reductions. However, the ENR projects will require major capital construction at Blue Plains, and will cause significant disruptions during construction. ENR will be fully operational in January 2015, but the disruptions caused by ENR-related construction will temporarily interfere with current nitrogen removal program. The result is that the significant enhancement in the Blue Plains nitrogen removal capacity achieved by January 2015 will be preceded by temporary increases in the nitrogen discharged by Blue Plains. Unfortunately, though an invaluable technology, the additional cost of ENR will impose a tremendous burden on the District's residents, underscoring the critical importance of continued federal support for this mandated federal project..
- WASA is contributing to the additional progress made towards meeting the Bay goals by developing a combined sewer overflow (CSO) Long Term Control Plan (LTCP), which will drastically reduce by and estimated 96% - 98% of the combined sewer overflow discharges to the city's waterways. The purpose of the LTCP is to meet local water quality standards, specifically for bacteria and dissolved oxygen (DO). However, the LTCP will also make some contribution to reducing nutrients, and various components of the Plan should be completed by 2025. The estimated cost of the project is over \$2 billion, and is currently the full responsibility of WASA ratepayers. Although the federal government has participated in funding the preliminary phase of the LTCP through special appropriations , , however at this time, the great bulk of this massive project remains the responsibility of WASA ratepayers.
- We were one of the first in the nation to initiate a treatment called "Biological Nitrogen Reduction" (BNR) at Blue Plains, which will go a long way to reducing nutrients. We are also actively working with our partner states of Maryland and Virginia to develop a creative approach to using resources originally planned for combined sewer treatment to expand the capacity to remove nitrogen.
- A key concern about sustaining our commitments to this level of nutrient removal is the expense, and the reality that these efforts require significant fiscal resources. For instance, the

Long Term Control Plan is estimated to cost at the present dollar rate \$2.2 billion into the next decade and beyond. Recognizing this, the District cannot proceed alone. Instead, we look to our partners to work with us in restoration of Anacostia and the Bay when it comes to Blue Plains nutrient removal technology. It is a harsh fact that it takes significant amounts of money to control nitrogen and phosphorous at the scale at which Blue Plains operates.

- We strive to be a national leader in a number of arenas that could be the wave of the future for pollution control in dense urban areas. We have negotiated a progressive stormwater MS4 permit with EPA that includes a wide array of enhancements that are underway, such as committing up to \$1,000,000 to provide incentives for green roof installations on federal, residential, commercial, and District-controlled properties. In fact, many Permit items formed the basis for activities in the newly adopted District 2-year milestones. These include using green infrastructure and low impact development (LID) as first options to control stormwater runoff from our large areas of imperviousness.
- Residential development is the single largest land use in the District, and with their contributing pollutants through combined sewer overflow events and urban stormwater runoff, these lands are one of the primary sources of pollution to its waterways. DDOE has created its own incentive program, the RiverSmart Homes Program, to address the challenges of capturing pollution controls at the residential level. My agency oversees this creative program, which offers fiscal incentives to homeowners interested in reducing stormwater runoff and pollution prevention from their properties.

We realize that without convincing homeowners to adopt runoff control techniques on their properties, the city will have a difficult time achieving its water pollution reduction goals for the Bay. We anticipate that at least 100 sites, or 10% of homes in the watershed, will have been installed in the pilot Pope Branch watershed by the fall of 2009. DDOE already has a list of around 650 interested homeowners throughout the city, and we plan to install approximately 400 RiverSmart homes over the next fiscal year and into the foreseeable future.

- We are like other developed partners, in that our high percentage of paved surfaces leads to polluted runoff and trash getting into our rivers. To this end, Mayor Fenty decided to 'champion' urban runoff and green infrastructure. The District makes full use of green roofs and LID wherever possible throughout the city. For instance, we are hard at work to fulfill

the Mayor's vision to put a green roof on 20%, or 1,136 acres of District buildings over 20 years.

- We are developing a regulation that would create incentives for LID, such as green roofs, porous pavements, and similar LID technologies and approaches that won us national recognition in 2008. The revised regulations will require LID as first option for all new development and re-development sites. As rated by the organization called Green Roofs for Healthy Cities, the District is currently the number two city in the nation, second only to Chicago, with the most green roofs installed. As we work with our federal partners to convert their rooftops, then we can ultimately climb to number one status in the next few years.
- Effective May 1, 2009, DDOE revised its stormwater fee so that stormwater fees are now based on the amount of impervious surface area that ratepayers own, rather than by water usage. This should serve as an ongoing incentive for conversion of impervious areas into pervious ones.
- Because the Anacostia River is considered 'impaired' for trash, the District completed a trash survey and trash reduction plan for the Anacostia Watershed and launched three trash-reduction demonstration projects in the watershed. Also, my agency is working with Maryland and EPA to address aggressively trash by developing a Trash Total Maximum Daily Load (TMDL) for the Anacostia watershed, which will be effective by the end of 2010. We are also a signatory to the Potomac River Trash Free Treaty (by 2013).
- In late April, Mayor Fenty announced the new Green DC Agenda, which outlines our efforts in 7 categories, and 2 spotlight areas, including these examples that help accelerate our restoration efforts:
 - Installation of rain gardens and other projects to filter polluted stormwater runoff at five schools per year.
 - Provide free comprehensive RiverSmart Homes audits and up to \$1,200 in financial support to install rain barrels, rain gardens and other systems to treat stormwater runoff at residents' homes.
 - We continue using an aggressive Anacostia Restoration Plan to better frame and manage the local efforts to restore the Anacostia River to swimmable, fishable conditions.
 - We adopted new urban tree canopy goals to increase urban tree canopy coverage by 5% from 35% current level, to 40% coverage in 25 years.

- Our forthcoming Stormwater Regulations will require very stringent stormwater pollution prevention controls on *all* new development and re-development construction – more effectively controlling thousands of acres of nutrients and sediments from reaching the Bay.
- For the Anacostia, the Potomac, and urban areas of the Chesapeake Bay watershed, *the solution to water quality is found on the land* -- and depends upon how we manage the ‘non-point’ sources there. Due to our ultra-urban nature, DC is maximizing the use of LID as a proven way to mitigate the environmental impacts from stormwater runoff. I am proud of the many activities that we have underway to help restore our Rivers and the Bay – through a comprehensive approach to incorporating green infrastructure and green roofs.

Action Items

- **Reauthorize Section 117 CWA for the Bay Program** – with funding at \$50 million. With this section’s reauthorization open for discussion, there is a vital and unique opportunity to fold into it several measures that would significantly strengthen Bay cleanup efforts: by both federal and states partners simultaneously.
 - Develop and incorporate national standards for Stormwater Management – One novel opportunity is to **develop a national [or basin-wide] standard** for stormwater control, requiring the use of using LID practices on both new and re-development. Currently, each state or municipality must develop separate and, in most cases, different stormwater regulations and codes – which are inevitably challenged by private/development entities, leading to protracted legal battles. If there were one single national standard for stormwater practice, then the Bay states would not expend precious resources fighting these battles, which we all find ourselves fighting right now.

More importantly, states would all have available to them a prescribed and well vetted set of uniform best management practices with respect to Low Impact Development guidelines and technical standards for how to achieve pre-development conditions. There would be implementation flexibility to accommodate the local scenarios. But now is the time to change our collective mindset and develop uniform standards for both new development and retrofits. I believe that there is a national consensus that such a standard

is needed, but no one has yet undertaken the process.

- Another opportunity would be to include the following stormwater provisions into the revised Section 117:
 - Maximizing stormwater control at federal facilities by using EISA §438 (Energy Independence & Security Act). The District is unique among all of the U.S. jurisdictions in that it is host to a significant number of federal facilities, which comprise approximately one-third of the District land area. Primarily an energy act, EISA contains a small section (438) that directs federal landholders to comply with stringent stormwater capture and treatment goals. Currently, EPA is working voluntarily as the lead with the District and our federal partners to specify what level of stormwater capture is optimal via guidance.

Converting these vast rooftops and properties to green roofs will make a significant difference in helping to manage and eliminate stormwater runoff and its many urban pollutants. We are eager to work with our federal partners as they begin to adopt innovative stormwater measures at buildings in the District and throughout the Bay watershed. In trying to explore best ways to implement the EIS Act, DC took the lead to convene a spring 2009 working group to look at various approaches to implement the Act's requirements.

- *We would appreciate if the implementation terms, including guidance and lead federal agency of this Act, would be incorporated into the revised CWA 117 section.* Earlier this year DC initiated a cooperative effort with our federal partners, including EPA, General Services Administration, Department of Defense, US Department of Agriculture, National Park Service and others, to use the District as a pilot to showcase innovative stormwater controls by implementing the requirements of this Act.

We hope that innovative techniques will be deployed by each federal partner as a result, and that there will be a *'tech transfer' of lessons learned* across the nation at federal facilities. As the nation's capital, DC should be the showcase of what federal agencies and local jurisdictions can do together to demonstrate limitless opportunities and technologies to improve the water quality and foster environmental stewardship.

- Once pristine, the Anacostia River has been degraded by dense urban development and a legacy of industrial pollution. The Anacostia River watershed covers approximately 176 square miles, and roughly 25 % of it lies in the District.

The river is the focus of large-scale restoration efforts by the District, with many development projects both planned and underway. In the spring of 2007, Mayor Fenty requested that DDOE develop a roadmap for the District's efforts to restore the Anacostia. The Mayor recognized that, although restoration efforts to attain Clean Water Act goals in the Anacostia have been ongoing for more than twenty years, there is still a long way to go before the river can be considered fishable and swimmable. It is the District's goal to restore the Anacostia as a fishable and swimmable river by the year 2032, as outlined in the City's Anacostia Restoration Plan. Including additional support for the District's restorations efforts for the Anacostia in the revised Section 117 will help us meet this goal.

- Utilizing the Bay-wide TMDL as a Basin-wide Comprehensive Tool – The District recognizes that a comprehensive watershed approach is greatly needed. Accordingly, DC welcomes a Bay-wide TMDL as a tool that will more fully address many of the stubborn pollution sources. For example, one state partner recently reported that only 2,000 of its total 30,000 farms possess nutrient management plans. Agriculture is one area where additional federal focus would be helpful, by being included in the TMDL. Historically, Bay state and federal partners have readily highlighted urban shortcomings, but have been reluctant to tackle fully some of the nagging agricultural problems that persist today. We support establishing nitrogen, sediment, and phosphorus pollution caps in the Chesapeake Bay watershed that could, if appropriate, support a market-based trading program.
- Formally Appoint EPA as Lead - We would recommend that EPA be formally named as federal lead on overseeing state AND federal implementation of the forthcoming TMDL. We look to EPA to take a lead role in overseeing each state's 'reasonable assurance' that they will achieve the needed reductions by taking action on agriculture, wastewater, and urban stormwater pollution sources. Likewise, EPA should also scrutinize the State Implementation Plans, which will detail how the reductions will occur, and in what timeframes. Failure to demonstrate reasonable assurance and needed reductions should be subject to federal consequences, as EPA would prescribe.

- **Federal Partnerships as Constructive** – I am pleased that the Administration has appointed Chuck Fox as Senior Advisor for Chesapeake Bay and the Anacostia River. We are glad that his mission recognizes the importance of the Anacostia River along with the Bay. We are also pleased with the Executive Order that the President issued in May, and we have already begun actively participating in the enhanced stakeholder efforts that have resulted. With this new federal leadership role, I look for inter-jurisdictional agreements to become more abundant, more creative, and more effective.

- **Ensure Blue Plains Funding** – As mentioned above, the District is faced with the obligation to maintain an aggressive program to reduce levels of nutrients in the area’s waterways. This effort will require significant fiscal resources, and the \$2.2 billion price tag for the Long Term Control Plan is far beyond the amount that can be borne by the District’s ratepayers, alone. Instead, when it comes to Blue Plains nutrient removal technology, we must look to our tidal partners to work with us in restoration of Anacostia and the Bay. It is a harsh fact that it takes much money to control nitrogen and phosphorous at the scale at which Blue Plains operates. Reauthorization of 117 should be sure to include linkage to funding for: 1) innovative denitrification technology, 2) full implementation of the Long Term Control Plan, and 3) expansion of both ENR and BNR (so we can meet the 2025 restoration goals).

- **Add Stormwater Requirements into Reauthorization of the Federal Surface Transportation Act** – Recognizing that a high percentage of polluted runoff originates from roads and highways, DC is working to reduce this stormwater impact by undertaking a multi-faceted approach of using a variety of best management practices, such as: porous pavement, water quality catch basins, tree boxes, and curb cuts. We are modifying roadway imperviousness at every opportunity. It would be ideal if new federal roadway construction throughout the Bay watershed could also utilize similar types of alternative and corrective methods. Specifically, reauthorization of the Federal Surface Transportation Act triggers a policy opportunity for inclusion of stronger stormwater provisions. The Act should call for the use of standards and guidance from USDOT and EPA, to ensure that new construction and significant reconstruction of federal aid roadways mitigate the impacts of stormwater runoff. Policies should require construction that mimics pre-construction hydrologic conditions to the maximum extent feasible.

- **Establish a Circuit Rider Program** – the EPA Chesapeake Bay Program could fund, supply and staff a technical ‘Circuit Rider’ program to help local governments implement the State

Implementation Plans that will require them to enact new codes, regulations, or legislation. The circuit rider expertise would be matched to the respective community visited, whether urban, suburban, or rural, as the assistance needs can vary so widely when meeting the terms of the TMDL and the SIP. We also support the creation of a Local Government Innovation and Implementation Fund, to complement the Small Watershed Grant Program.

- **Establish a National or Regional Coal Tar Ban** – the District’s Coal Tar ban took effect July 1, 2009 (Comprehensive Stormwater Management Enhancement Amendment Act of 2008, L17-0371)). Subject to a daily fine of up to \$2,500, the ban prohibits the sale, use, or permitting to be used on one’s property coal-tar pavement products, such as. pavement sealants, pavement dressing conditioner, and the like, in the District. This is the first ban of its kind in the Chesapeake watershed, and, in fact, on the entire east coast. Comparable alternative products are asphalt based and contain about 1,000 times less of the polycyclic aromatic hydrocarbons (PAHs) that make coal tar pavement products toxic.

Given the alarmingly high concentrations of toxic PAHs in coal-tar pavement products used nationwide, the documented impact on aquatic resources, the growing concern about human exposure, and the fact that alternative products are readily available, a national ban on such products is low-hanging fruit. Compared to coal tar pavement products, other sources of PAHs in our environment, such as cars and power plants, are heavily regulated. Research suggests that total PAH loads washed off parking lots could be reduced by as much as 90 % if parking lots were unsealed. Government and communities have struggled to get a handle on the problem of toxics in the Chesapeake Bay, the Anacostia River, and other waterbodies nationwide for many years, and a national ban (or a Bay-wide ban) would have a significant impact in a relatively easy way. It is another way in which federal agencies could provide leadership at their facilities.

Conclusion

As you can see, the District is fully committed to the Anacostia River and Chesapeake Bay restoration. Together with increased federal leadership, funding, and programmatic support, the Bay states will be better positioned to increase the rate of restoration and go beyond business as usual for the Anacostia and the Bay.

I thank you again for the opportunity to testify, and look forward to answering any questions the Committee may have.