Green Infrastructure Community Profile
Washington, D.C.

Summary

The extraordinarily poor quality of the Anacostia River, increasing impervious area and resulting stormwater runoff has spurred Washington D.C. to take action. The District's Combined Sewer Overflow (CSO) long-term control plan (LTCP) will incorporate Green Infrastructure, or Low Impact Development (LID), throughout the city into planned large capital projects. Of the $1.9 billion budget allocated for the LTCP, $3 million has been allocated for advocating and assisting with green infrastructure retrofits. A $2 million program supplemental to the LTCP will install raingardens, tree plantings and green roofs in collaboration with community groups. An additional $1 million will go to cost-sharing grants for Low Impact Development installations in CSO areas.

Washington's ambitious "20-20-20" plan calls for installation of 20 million square feet (sf) of green roofs, approximately equal to 20% of the roof area of all city buildings over 10,000 sf, over the next 20 years. It will contribute significantly to CSO mitigation by capturing stormwater equal to 15% of planned deep tunnel capacity.

The lower Anacostia River Watershed is 44 percent impervious surfaces, 28 percent tree covered, and 28 percent open space (American Forests).

Ordinance/Legal Framework

- D.C. Law 13-311 Storm Water Permit Compliance Amendment Act established the Storm Water Administration within the DC Water and Sewer Authority (DCWASA) and provides for the collection of fees to fund work directly related to the city's National Pollution Discharge Elimination System Municipal Separate Sewer System permit.
- In FY 2003 WASA completed negotiations for a consent decree to settle a lawsuit alleging that it violated federal CSO Policy. Under the consent decree, WASA has agreed to fund a U.S. EPA supplemental environmental project focusing on Green Infrastructure.
- Changes to building codes in 2004 allowed disconnected downspouts.
- In December 2005, the Mayor and the City Council created the new D.C. Department of Environment (DOE), and have designated DOE to be the Storm Water Administrator beginning in February 2007.

Program Details

20-20-20 Plan

The "Re-Greening Washington D.C." (August 2005) report found that if 80% of all proposed and 20% of all existing buildings with footprints greater than 10,000 sf had green roofs, the resulting 21,700,000 square feet of green roofs would, among others, provide the following storm water benefits:

- 30 million gallon increase in the city's storm water storage capacity, 15% of the LTCP deep tunnel's planned storage of 194 million gallons) 430 million gallons of rainwater stored over the course of an average year, equivalent to 1,700 Olympic-sized swimming pools
- 1.7% reduction in citywide runoff
- 15% reduction in the total number of CSO discharges per year

The US Department of Transportation's 68,000 sf green roof, with Capitol in background (Chesapeake Bay Foundation)

For more information, contact Steve Wise, Natural Resources Portfolio Manager

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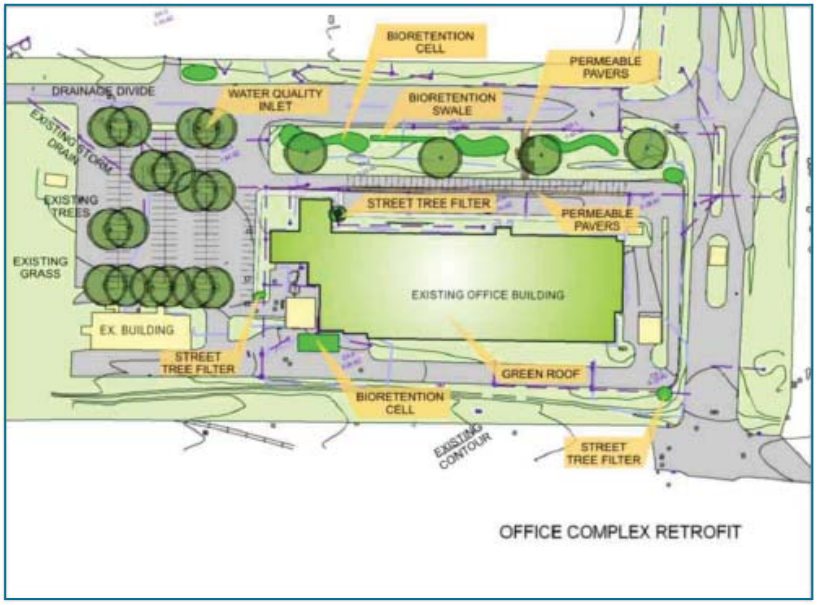
"Put a LID on It!"

The Watershed Protection of the District's Bureau of Environmental Quality established grants to promote innovative Green Infrastructure projects and supported several demonstration raingardens and other features.

Other District projects include:

• Washington Navy Yard LID project
Naval District Washington adopted a low impact development (LID) approach to stormwater retrofit and new facilities construction projects. The LID Center installed numerous pilot projects in 2001. About $500,000 was spent on retrofits that included downspout disconnection, rain gardens, tree box filters, and permeable pavement. Future plans call for LID retrofitting at five other naval facilities in the Chesapeake Bay watershed.



Green Infrastructure retrofit design at the Anacostia Annex of the Washington Navy Yard. (Department of Defense)

• LID at DCWASA Facilities
WASA has committed $3 million to installation of pervious pavement, green roofs and other Green Infrastructure at its own facilities. The first phase of the LID program has been to install several LID projects at the DCWASA Bryant Street Pumping Station. Plans include a public education program and proposed changes in development and redevelopment regulations, such as building code provisions.

Monitoring Results

The Washington Navy Yard is monitoring the LID projects for resulting stormwater volume reductions, stormwater discharge frequency, and water quality improvements.

For More Info

DC WASA
http://www.dcwasa.com/default.cfm

DDOE
http://ddoe.dc.gov/ddoe/site/default.asp?ddoeNav=|31003|

LID Center
http://www.lowimpactdevelopment.org/navyyard.htm

Greenroofs
http://www.greenroofs.org/resources/greenroofvisionfordc.pdf