# Green Streets Policy Inventory for the Washington Region<sup>1</sup>

Jurisdiction	<b>Green Streets Policy?</b>	Summary of policy
Washington	Yes	The Green Streets program is part of several programs including
D.C.		the Low Impact Development (LID) Action Plan for SW
		management, Great Streets, and Sustainable DC Plan. The
		Complete Streets Policy includes Green Streets principles such
		as creating more green space in transportation, improving
		pedestrian environment, and environmental enhancement.

## Maryland

State **<u>Stormwater Management Requirements</u>** for State and Federal Projects<sup>2</sup>:

1. New

At a minimum, runoff from 1 inch of rainfall must be treated with environmental site design.

2. Reconstructed

Environmental site design (ESD) must be implemented to the *maximum extent practicable* to provide water quality treatment for the first 1 inch of rainfall for a minimum of 50 percent of the existing impervious area within the limit of disturbance.

## **Additional Information**

- The <u>Stormwater Management Act of 2007</u> defines ESD as "...using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources."
- Maryland State Highways Administration (MD SHA) is a leading partner in the <u>Green Highways</u> <u>Partnership</u>. MD SHA has become involved in a number of demonstration projects promoting innovative stormwater management practices, including low impact development strategies and water quality banking.

Jurisdiction	Green Streets Policy? <sup>3</sup>	Summary of Policy
Bowie, MD	Yes	Plans and objectives include: Increased tree canopy coverage,

<sup>&</sup>lt;sup>1</sup> Sources include COG's Climate Energy and Environment Policy Committee (CEEPC) Annual Survey and pertinent websites.

<sup>&</sup>lt;sup>2</sup> These requirements presumably apply to state highways. In Maryland, local roads fall under local authority.

<sup>&</sup>lt;sup>3</sup> Yes=Jurisdiction has an overarching policy (that goes beyond state requirements) to incorporate low impact development and other landscaping features in new and reconstructed roads under its authority.

No=Jurisdiction may have low impact development policies in general plans but do not have a specific policy for low impact development or green infrastructure in road construction.

Charles County, MD College Park,	No	and more trees planted on streets (150 annually), LID stormwater management including bio-retention cells instead of retention ponds in their Environmental Infrastructure Action Plan Stormwater Management Retrofit: Dry swales, Bio-retention systems, and shallow wetlands. Street Tree Planting. Comprehensive plan includes state-required Green Infrastructure elements. Developed LID/ESD Design Manual. No clear overarching local policy. Some work related to the
MD		Green Infrastructure Master Plan Coordination and Implementation for the Anacostia River Watershed, which applies to all jurisdictions in the watershed. Energy-efficient street lights are among the <u>Green Initiatives</u> .
Frederick County, MD	Yes	County has a <u>Green Infrastructure Plan</u> , which includes items such as revitalizing natural resource gaps, supporting development patterns, and land use planning to meet water quality standards. The plan includes <u>Storm Water Action Items</u> , with a goal to 'Incorporate the use of non-structural stormwater management, including vegetated swales and bio- retention.' The <u>Sustainable Action Plan</u> includes energy efficient lighting.
City of Frederick	No	The 2009 <u>Sustainable Practice Action Plan</u> calls for exploring an LID stormwater management policy employing bioretention facilities, filter/buffer strips, grassed swales, and rain barrels. This action plan also calls for implementation of Energy Efficient lighting. Later, <u>ESD Treatment Practices</u> were approved in 2010 to follow environmental site design to the maximum extent practical.
City of Gaithersburg	Yes	Gaithersburg Master Plan Process contains several green street policies including: Green Infrastructure, green stormwater management, street trees, and increased street light efficiency. The city's ESD <u>stormwater policies</u> include: bio-retention swales and curb inlets, enlarged sidewalk tree boxes, and green roofs and facades.
Montgomery County, MD	Yes	Very intensive LID program including: Bioretention, bioswales, curb extensions, tree boxes, rain gardens, and pervious sidewalks. Numerous implemented projects throughout the county.
Prince George's County, MD	Yes	<u>Countywide Green Infrastructure Functional Master Plan</u> supports street planters, curb extensions, tree box filters, bioswales and bioretention.

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City of Rockville, MD	No	Implemented the Street Tree Master Plan.
Takoma Park, MD	No	At least <u>two Green Street projects</u> in progress.

#### Virginia

#### State Requirements for Stormwater Management for Roads and Highways:<sup>4</sup>

#### 1. New

Technology approach: Determine the required best management practice to treat the entire post construction impervious area within the right of way plus permanent easement area per outfall.

#### 2. Reconstructed.

Performance approach: Design the best management practice for a water quality volume based on net increase in impervious area plus 10% of pre-construction impervious area. The goal is to determine the best management practice that would remove pounds of phosphorus to 10% less than existing loading

#### **Additional Information**

Currently DCR has no published credits for LID practices in meeting water quality requirements. However, such practices are being requested as a means to improve water quality. Language in the VDOT Subdivision Street Acceptance Policies is encouraging LID practices, even to the allowance of such inside VDOT right of way. For those items inside the right of way, maintenance provisions are agreed upon either through VDOT or the Locality.

VDOT holds an Municipal Separate Storm Sewer System (MS4) permit for facilities located in 13 urbanized areas in Virginia. VDOT's <u>Watershed Implementation Plan</u> includes a provision to encourage LID where appropriate.

<sup>&</sup>lt;sup>4</sup> In Northern Virginia, most roads are built and maintained by the state. However this group does not include those roads within the Cities, some Towns, some private subdivision streets, and the secondary roads in Arlington County. Local governments can partner with the state in some cases on Secondary Roadways to implement stormwater management in state rights of way with execution of maintenance agreement as per VDOT's Subdivision Street Acceptance Requirements (SSAR).

Jurisdiction	Green Streets Policy?	Summary of Policy
City of	In Progress	Alexandria has an Eco-City Charter and an Environmental Action
Alexandria,		Plan that incorporate green street principles. Environmental
VA		elements such as trees are included in City Master Plan and
		associated small area plans; and Transportation Master Plan.
		Implemented several green infrastructure and Low Impact
		Development (LID) projects, including a pervious trail.
Arlington	Yes	Large Green Streets project. Several green stormwater
County, VA		management projects in progress and implemented. See FAQ
		page for green streets. Also has an efficient streetlight program.
City of	Yes	The city has several green infrastructure projects. The
Fairfax, VA		Watershed Management Plan includes describes the duties of
		the Green Infrastructure Planning sub-department.
		Department of Environmental Services implements LID projects.
Loudoun	Yes	A Green Infrastructure Strategic Plan includes green stormwater
County, VA		management. Stormwater Management Plan, details BMPs.
City of	No	Urban tree canopy plan and efficient streetlight are part of
Manassas,		sustainability plan. Green infrastructure included in the Old
VA		Town <u>street plan.</u>
Fairfax	In Progress	Comprehensive Plan contains several ecological and water
County, VA		resources objectives and policies to support stormwater
		treatment through Low Impact Development. Environmentally-
		sensitive streetscaping concepts have been implemented in
		several neighborhood stormwater improvement projects and
		incorporated in design guidelines for Tysons Corner.
Prince	No	The County's stormwater management program lists Low
William		Impact Development among its methods.
County, VA		

# Acronyms

BMPs	<b>Best Management Practices-</b> Stormwater facilities such as rain gardens (a small depressed area with amended soils and native plants designed to capture and filter runoff), grassed swales, infiltration trenches, permeable pavement, stormwater planters, tree box filters, and vegetated roofs. ( <u>http://www.epa.gov/oaintrnt/stormwater/best_practices.htm</u> )
ESD	Environmental Site Design- Same as Low Impact Development.
LID	Low Impact Development-

An approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. LID incorporates practices such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions. (http://water.epa.gov/polwaste/green/)

**Note:** ESD and LID are contrasted with **Traditional Stormwater Management design** which focused on collecting stormwater in piped networks and transporting it off site as quickly as possible, either directly to a stream or river, to a large stormwater management facility (basin), or to a combined sewer system flowing to a wastewater treatment plant. (<u>http://www.epa.gov/oaintrnt/stormwater/</u>)

#### MS4 Municipal Separate Storm Sewer System-

An MS4 is a conveyance or system of conveyances that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

MS4 jurisdictions must complete a permit and develop a stormwater management plan under Clean Water Act regulations.