

## Project 8: District-wide Innovative Low Impact Development (LID)-Green Infrastructure (GI) Technologies Feasibility & Demonstration Program (FY13)

**Introduction:**

The District Department of the Environment (DDOE), Watershed Protection Division (WPD), encourages the installation of innovative stormwater control retrofits within the District of Columbia (District). The purpose of this program is to provide funding for cost share opportunities to install these retrofits, which are also known as Low Impact Development (LID) or green infrastructure (GI). Many unintended consequences have resulted from the ever-increasing amount of impervious surfaces that have displaced balanced natural systems as the District has grown. The intention of LID-GI is to retain the first flush of stormwater from these impervious surfaces, decrease total runoff, and filter stormwater in order to reduce the load of nonpoint source pollution entering District waterways. The District is using these terms LID and GI to describe the design, engineering, and construction of built environments that incorporate vegetated systems or technologies that make the constructed world respond to rain events more as the natural world does. LID-GI includes a growing collection of technologies and approaches that manage stormwater runoff from impervious surfaces, like parking lots, rooftops, pathways, sidewalks, driveways, alleys, roads, etc. LID-GI could involve the installation of green roofs, curbside bioretention or rain gardens, permeable paving, and rainwater harvesting and reuse systems. Specific examples include directing street runoff to street tree boxes or roof runoff to storage tanks that will eventually provide a building with some or all of its non-potable water needs. LID-GI treats or retains stormwater at the lot level (where the rain falls), often making use of existing landscaped features. LID-GI technologies provide extra benefits for the landowner and the local environment, including increased aesthetic appeal and habitat creation, air pollution abatement, urban heat-island effect mitigation, reduced building heating and cooling costs, and reduced potable water demands.

**Approximate Available Funds:** Three hundred thousand dollars (\$300,000), pending the availability of funds. Projects between ten thousand dollars (\$10,000) and one hundred thousand dollars (\$100,000) may be awarded based upon the project need and quality of the application. Funding is available until funds are exhausted. Matching funds of at least 20% of overall project costs are required.

**Project Period:**

Up to three (3) years, but not to exceed three (3) years. The grantee should indicate the approximate amount of time needed to complete the project. There is no opportunity to renew.

**Project Description:**

Funding is available for the design, permitting, and construction of projects demonstrating LID-GI stormwater control technologies. Primary goals of this demonstration grant program include:

- Control stormwater runoff by connecting impervious surfaces with on-site water demands such as irrigation, infiltration, or non-potable building needs;
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Site installations within the District's most impaired/highest priority watersheds (links provided in Project Eligibility section below);

- Achieve the greatest nonpoint source pollution control for the dollars requested (cost/benefit); and

- Expand upon the current knowledge/understanding of stormwater treatment/capture/reuse strategies by providing design and construction information that will add to the District's database on concept designs, construction contracts, and schedules for LID-GI.

**Project Eligibility:**

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All projects must demonstrate stormwater runoff reduction and/or show how increases in water quality through reduced pollutant loads will be achieved. Funds are not restricted by the type of construction and may be used for new construction or redevelopment, or for the retrofit of existing properties/structures. Funds are not restricted by the type of property owner and may be used on private and public properties; however, the property must be located within the District.

Funding may be used for all activities required to design, permit, install, and construct the demonstration of LID-GI stormwater control technologies. Public education in LID-GI installations is required, while artistic expression is encouraged.

Specifically, proposals will be accepted for projects that retrofit properties that do not currently have appropriate stormwater controls in place with LID-GI practices

**Project Ineligibility:**

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These grant funds cannot be used to meet minimum regulatory stormwater requirements for new construction or redevelopment projects.

Proposals will not be considered that do not specify a project location, including either a property address or boundaries in the case of linear public rights-of-way.

These funds are primarily for implementation. Proposals will not be considered that do not specifically define the LID-GI practices to be implemented.

Proposals will not be considered for projects on single family dwellings to install rain barrels, permeable paving, rain gardens, native perennial planting (Bayscaping) and shade tree planting. Assistance for such projects, if any, comes from the District's RiverSmart Homes funding opportunity. Information about RiverSmart Homes is available at <http://ddoe.dc.gov/service/riversmart-homes-overview>.

Proposals will not be considered for projects on primary and secondary schools. This includes public, charter and private schools. Assistance for such projects, if any, comes from the District's RiverSmart Schools funding opportunity. Information about RiverSmart Schools is available at <http://green.dc.gov/service/riversmart-schools>

Green roof proposals will only be considered for this funding if they advance some larger question about the technology, such as facilitating rooftop agriculture, providing specific wildlife habitat benefits, or some other innovation technology not commonly in practice. Assistance for green roof installation proposals that do not fit this description, can be applied for through the District's RiverSmart Rooftop rebate opportunity. Information about this rebate is available at <http://green.dc.gov/greenroofs>

Proposals that do not provide enough evidence that the project will be completed within the maximum time frame of the grant will not be considered

for these funds. Examples of circumstances with potential to lengthen the timeline for project completion include:

- Whether the property borders National Park Service land;
- Whether the project would be complicated by extreme traffic challenges or security challenges;
- If there might be difficulty in getting permissions from neighbors;
- If the project requires a permit or permits that would take a long time to acquire, or would add a significant cost;
- Conflicts with existing utilities.

Proposals targeting the public right-of-way must put serious consideration into the District Department of Transportation (DDOT) permitting review and approval timelines (public right-of-way includes DDOT-controlled streets, highways, sidewalks, traffic islands, and alleys):

- Stormwater treated in the public right-of-way must come from the public right-of-way;
- Early coordination for concept, site location, and design with DDOT is required. Please contact the Project Management Support Division at DDOT Infrastructure Project Management Administration (IPMA) at 202-671-2800;
- DDOT may require additional components to the project, like quantification of pollution reduction;
- The applicant or other appropriate team member must be prepared to accept primary responsibility for maintenance of the proposed device(s). Maintenance arrangements will need to satisfy DDOT.

**Application Guidelines:** These grant funds can be awarded **only** to nonprofit organizations and educational institutions.

- We encourage eligible applicants, as defined above, to partner with private property owners, with design and engineering firms, and/or with each other to submit team proposals. District agencies will not be considered for this particular grant program;
- A unique application is required for each proposed LID-GI device, unless it is part of a treatment train (multiple systems in parallel or series); and
- Applicants may submit multiple proposals.

**Application Format:**

All proposals should follow general instructions in this RFA, plus:

1. List of project participants, statements of interest and qualifications;

[a.](#)



this is required. The WIPs are inventories of specific LID-GI projects, organized by sub watersheds, which have been identified based on visual inspection. These projects do signify high potential for nonpoint source control; however, the listing does not indicate that an in-depth, ground-truthing was performed or that the landowner is completely supportive of the project. The same consideration for viability must be given to WIP projects as would be given to any other site. DDOE sees these projects as a good starting point but recognizes that additional high quality projects may exist in these watersheds.

A catalog of the Rock Creek and Oxon Run projects, referenced above, can be found on the DDOE webpage, <http://ddoe.dc.gov/watershed>. Targeted sub watersheds in Rock Creek are Fenwick Branch, Dumbarton Oaks and Klinge Valley Stream and will be given priority in selection. Anacostia Watershed projects can be found at the following web link, [http://www.anacostia.net/Restoration\\_Plan/action\\_plans.html](http://www.anacostia.net/Restoration_Plan/action_plans.html).

Anacostia project inventories can be found under each sub watershed action plan. Targeted sub watersheds in the Anacostia watershed are Watts Branch, Fort Dupont, Pope Branch, Hickey Run and the Tidal River.

3. Concept Plan-Project Description: Describe what LID-GI stormwater control technology or set of technologies will be implemented. This description should identify:

a. The impervious surface area that will be controlled;

b. The amount of stormwater that will be retained and/or treated. DDOE prefers projects with plans to retain and treat a large volume of stormwater relative to the overall cost of the installation.

c. The site's ability to use the water for irrigation, infiltration, or other non-potable building needs;

d. Actual budgets with documentation and details of the expected design and construction costs for the chosen LID-GI;

e. Project stewards for the site's immediate and long term maintenance and a description of those maintenance plans; and

f. Unique or innovative design opportunities within the project.

4. Education-Outreach Plan: Include a short narrative of opportunities

to make use of site's LID-GI technologies to highlight stormwater retention, pollution prevention, LID-GI performance and the connection to District water bodies. The narrative should identify a primary target audience, like school or community groups, property owners/managers, developers, civil engineers, planners, architects, landscape architects, and landscaping companies. The proposal should address outreach strategies like stakeholder tours, public forums, letters to the media, letters to the community, and web page information.

5. Signage: All completed projects must include permanent signage to be placed in a highly visible area near the finished project explaining what the device does, its benefits, and funding sources for the project, including DDOE. Final language on all signage is subject to approval by DDOE.

6. Maintenance Agreement: The proposal must include provisions for property owners to sign a legally binding maintenance covenant for the installed device. An installed device will be subject to periodic inspection by DDOE.

In this agreement the grantee must agree to indemnify and hold harmless the District of Columbia and all of its officers, agents and servants against any and all claims of liability or lawsuits arising from or based on, or as a consequence of or result of, any act, omission or default of the grantee, its employees or its subcontractors, in the performance of the grant.

**Project Outputs and Deliverables:**

- Installation of LID-GI Stormwater Management Practice(s)
- Scanned final version civil engineering plans (electronic PDF and CAD) with permit stamps, and any reports generated by the engineers
- Public Right-of-way (PROW) projects may require additional deliverables, as agreed upon by grantee and DDOT during the application process
- Number of individuals reached through education and outreach
- Project signage
- Written agreement establishing the long-term maintenance plan
- Project budget detailing construction costs and projected operation and maintenance costs
- Project contracts including scope of work for construction as well as long-term maintenance contracts, if they exist
- Quarterly status reports showing accomplishments and progress to

date, and detailing the completion of project objectives; and

10. A final report.

**Criteria for Proposal Evaluation:**

Each application which includes meets the requirements of Section IV. "Application and Submission Information", and the specific requests of this project, will be evaluated according to these scoring criteria.

1. Project Participants (25 points)

Present a unique team with compelling commitments;

Are qualified to manage the proposed project;

Have experience on similar projects; and

Have experience with District permit plan review and/or District agency permit processes.

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2. Location (20 points)

Highly visible site or a site that presents unique opportunities for innovation, education, or significant water quality benefits; and

Project overlaps with sites identified in the District's WIPs.

3. Concept Plan (20 points)

Is written in a concise, understandable manner;

Appears feasible including secured buy-in from all relevant stakeholders;

Will provide a deliverable transferable to other District sites;

Indicates a high level of innovation;

class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Treats or retains at least 1.2" of stormwater; </p> <p class=MsoNormal style='margin-left:1.5in'>&nbsp;  </p> <p class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Addresses immediate and long-term maintenance plans; and</p> <p class=MsoNormal style='margin-left:1.5in'>&nbsp;  </p> <p class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Presents an adequate and reasonable justification for the funds requested.</p> <p class=MsoListParagraph style='margin-left:1.0in'>&nbsp;  </p> <p class=MsoListParagraph style='margin-left:31.5pt;text-indent:-13.5pt'>4.<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span> Education-Outreach Plan (5 points):</p> <p class=MsoNormal style='margin-left:1.25in'>&nbsp;  </p> <p class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Outlines outreach strategies that are feasible;</p> <p class=MsoNormal style='margin-left:1.5in'>&nbsp;  </p> <p class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Identifies a target audience that is compelling; and</p> <p class=MsoNormal style='margin-left:1.5in'>&nbsp;  </p> <p class=MsoNormal style='margin-left:1.5in;text-indent:-.25in'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span></span> Employs innovation in outreach tactics; and</p> <p class=MsoListParagraph style='margin-left:1.0in'>&nbsp;  </p> <p class=MsoListParagraph style='margin-left:31.5pt;text-indent:-13.5pt'>5.<span style='font:7.0pt "Times New Roman"'>&nbsp;&nbsp;  </span> Cost Effectiveness/Environmental Benefit (30 points). </p> <p class=MsoListParagraph style='margin-left:31.5pt'>&nbsp;  </p> <p class=MsoListParagraph style='margin-top:0in;margin-right:0in;margin-bottom: 6.0pt;margin-left:99.35pt;text-indent:-9.35pt'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'> </span></span> Pollutant reduction achieved for grant funds requested</p> <p class=MsoListParagraph style='margin-top:0in;margin-right:0in;margin-bottom: 6.0pt;margin-left:99.35pt;text-indent:-9.35pt'><span style='font-family:"Courier New"'>o<span style='font:7.0pt "Times New Roman"'> </span></span> Match provided by applicant</p> <p class=Default>&nbsp;  </p> <p class=Default>Applicant should refer to Section 4.2. "Scoring Criteria" for additional factors the review panel will take into consideration when reviewing proposals.</p> <p class=MsoNormal>&nbsp;  </p> </div>