

Green Infrastructure in Schools: Challenges and Opportunities



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Introduction to DC Greenworks:

Beginning in 2000, DC Greenworks promoted the growth of a green infrastructure industry in the DC Metro Area and the Chesapeake Bay Watershed. Through demonstration projects, including green roofs, rain gardens and rainwater harvesting, we raised awareness and understanding of the multiple benefits of GI-LID technologies.

As the industry has grown, DC Greenworks has shifted our focus to training local residents in green infrastructure practices to meet the demand of the commercial sector for a skilled workforce to build, maintain and monitor GI-LID installations.



Introduction to DC Greenworks:

The DC Greenworks team brings more that 20 years of experience to any project, and our portfolio includes:

Green Roofs installed : 70 total green roof coverage: 140,000 SF

Rain Barrels installed: 3800 total gallons captured: 501,600

Rain Gardens, Bioretention & Conservation Landscaping: dozens

Our Services:

- Consulting
- Design
- Installation
- Maintenance
- Training

Projects include:

- Commercial
- Federal
- Institutional
- Residential
- Municipal

Projects types:

- Green Roofs
- Rain Barrels
- Cisterns
- Rain Gardens
- Permeable Pavement

DC Greenworks: NFWF School Projects



DC Greenworks has received generous funding from the National Fish and Wildlife Foundation since 2008. From 2010 through 2014, NFWF provided grants for the design and installation of Green Infrastructure projects at schools in Capitol Hill neighborhoods in Northeast and Southeast, Washington, DC.

2010-2014 Green Schools Clean Rivers

DC Greenworks selected 9 schools on Capitol Hill for planning, designing and demonstrating **GI-LID practices**.

- Green roofs
 - Rain gardens
 - Permeable pavers
 - Rain barrels
 - Bayscaping
- and...**Education Programming**



Criteria for Selection of Specific Schools

- Cited in Biohabitats Inc.'s 2009 *Assessment of Storm Water Retrofit and School Greening Opportunities.*



Criteria for Selection of Specific Schools

- Active participation by school staff, faculty and parents – willing to meet and engage
- ...and students too!



Criteria for Selection of Specific Schools

- Not in conflict with DCPS schedule for building renovation



Challenges and... Opportunities

- DCPS planning and schedule for renovation was often uncertain, as to location, extent of disturbance and timeframe for the project



Challenges and... Opportunities



- Lack of commitment by school staff and/or parents to be involved in planning and/or continuing maintenance of the installation

Opportunities



- Many areas on these school campuses benefit from a project

Opportunities



- Disconnect downspout and direct into a rock bed and rain garden



Opportunities

- Reinforce trike shed and cover with green roof



Opportunities



- Downspouts connected to cisterns for rainwater harvesting
- Overflow directed to teaching gardens

Opportunities



- Green roof on school sheds to reduce runoff



Opportunities



- Replace turf slope with permeable pavers



Thank you!

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