Green Infrastructure in Schools: Challenges and Opportunities

National Fish and Wildlife Foundation
Annapolis, Maryland
March 27, 2015
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 than 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

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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.
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.
• Lack of commitment by school staff and/or parents to be involved in planning and/or continuing maintenance of the installation
Many areas on these school campuses benefit from a project.
• Disconnect downspout and direct into a rock bed and rain garden
Opportunities

- Reinforce trike shed and cover with green roof
• 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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