

The New York State Environmental Facilities Corporation



Growing Green Infrastructure in New York

November 17, 2011

Andrew M. Cuomo, Governor

Matthew J. Driscoll, President and C.E.O.

The Environmental Facilities Corporation

Providing Low-cost Financing and Technical Assistance to Municipalities, Businesses, and NY State Agencies for Environmental Projects

Clean Water State Revolving Fund

- 1987 Clean Water Act Amendments
- Provides financial assistance for wastewater and water quality infrastructure

Drinking Water State Revolving Fund

- 1996 Safe Drinking Water Act
 - Provides financial assistance for drinking water infrastructure
-
- Provided over \$14 billion in SRF Financings and Grants for 2,100 projects



2008 NYS Water Infrastructure Funding Initiative

Goals

- Restore Funding for the SRFs
- Improve Projects



Identified Need for Innovation

- New Treatment Plant Technology
- Energy Efficiency
- Water Conservation
- Green Infrastructure



Tools Needed

- **More Funding**
- **Grant Funding**
- **Better Information**
- **Non-traditional applicants**



ARRA

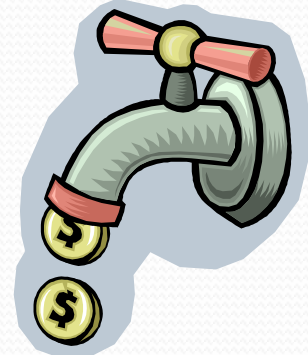


Vice President Joe Biden stands with President Barack Obama as he signs the American Recovery and Reinvestment Act at the Denver Museum of Nature and Science in Denver, Colorado, on February 17, 2009.



ARRA Provided

- \$432 million for clean water projects
- Grants for clean water projects!
- Required 20% of funding must be for green projects



GIGP Clean Water Round 1 – ARRA (FFY 2009)

- 295 applications seeking \$460 million in grant funding
- \$44.3 million awarded to 49 projects – All Construction
- **35 Clean Water** (\$38.2 million)
 - **Green Infrastructure:** 13 projects (\$9.3 million)
 - **Water Efficiency:** 2 projects (\$686,000)
 - **Energy Efficiency:** 16 projects (\$14.2 million, includes water meters)
 - **Environmental Innovation:** 4 projects (\$14 million)



GIGP Round 2 (FFY 2010)

- 96 applications seeking \$46 million in grant funding
- \$15 million awarded to 40 projects
- **30 Construction** (\$14.6 million, can fall into more than one project category)
 - Green Infrastructure: 21 projects (\$10.8 million)
 - Water Efficiency: 5 projects (\$2.7 million)
 - Energy Efficiency: 9 projects (\$4.3 million)
 - Environmental Innovation: 11 projects (\$4.9 million)
- **10 Design** (\$339,000, can fall into more than one project category)
 - Green Infrastructure: 7 projects (\$251,500)
 - Water Efficiency: 2 projects (\$52,000)
 - Energy Efficiency: 2 projects (\$83,000)
 - Environmental Innovation: 3 projects (\$80,000)



GIGP: Eligible Applicants

Any corporation which is organized and existing under the laws of the State of New York which is empowered to develop a project

- Municipalities
- State agencies
- Public benefit corporations
- For-profit corporations
- Individuals
- Firms
- Partnerships
- Associations
- Soil and water conservation districts*
- Not-for-profits
- School districts*



* Only eligible for GIGP Grants under existing State laws.



Overwhelming Response





GIGP Green Infrastructure Projects

New York's a Leader!



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CSO Green Streets Demonstration Project

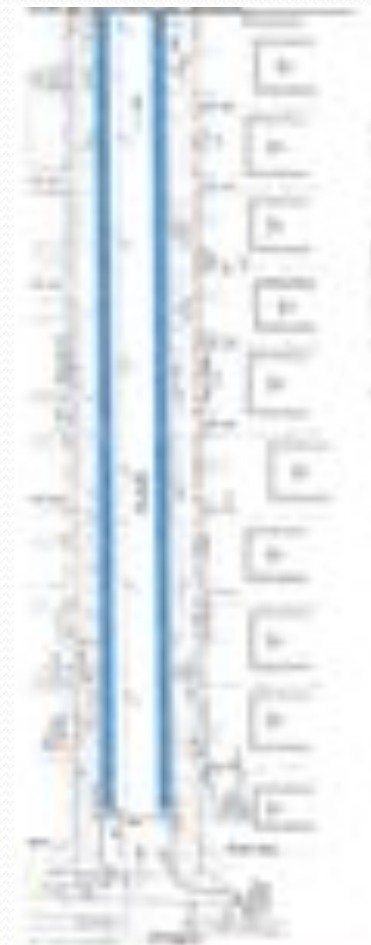
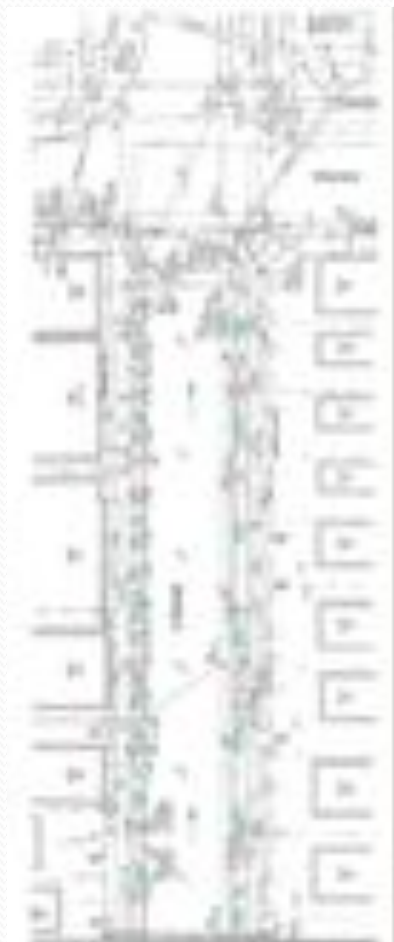


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CSO Green Streets Demonstration Project



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Road Highway Porous Pavement Project



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NYSPOROUSPAVEMENTPROJECT



Capture Area: 44,000 Square Feet
Annual Capture: 400,000
Gallons/PY
Construction Cost: \$1,600,000 (est.)

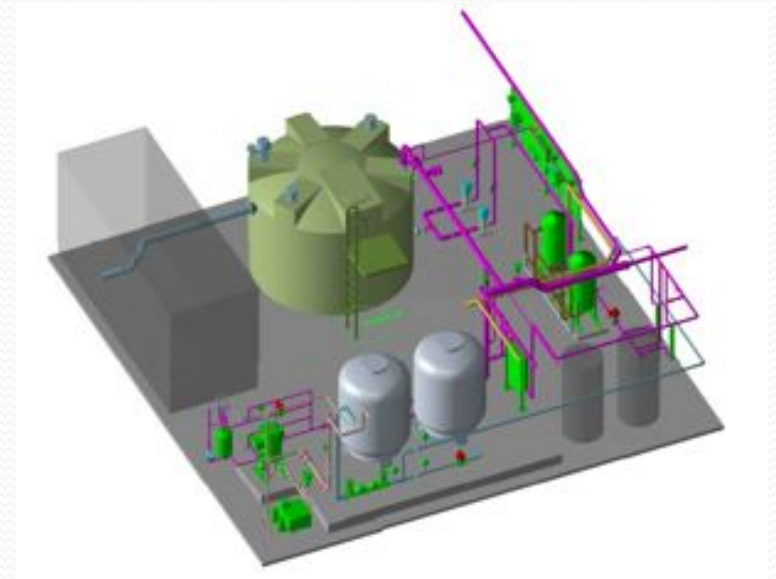




Image: Melissa Yearick Tioga County SWCD

Wetland Restoration in the NY Susquehanna River Basin

November 17, 2011



Peter Ward, director of Lindenhurst library, calls new lot "amazing."

Despite rain, library's parking lot flood-free

BY JENNIFER SMITH
jennifer.smith@newsday.com

The rain sloshing down on Long Island yesterday flooded roads and turned driveways into lakes.

But no water pooled in the new lot at Lindenhurst Memorial Library — even during the worst of the storm.

The parking lot is made of permeable paving stones atop a bed of absorbent gravel that soaks up excess water that would otherwise eventually end up in the Great South Bay. The lot was built last summer with the help of \$200,000 in federal stimulus money.

"It's amazing the way this thing sucks up water," said Peter Ward, the library's director. "Every time it rains like this I always check the parking lot."

It may be the first parking

NOW ONLINE
Watch director of
Lindenhurst library talk
about the library's
sustainable parking lot.
newsday.com/li

lot of its kind on Long Island. Nassau and Suffolk plan to build similar test sites this spring at county facilities.

It's one of the newer approaches to dealing with storm water runoff, which environmental officials say is one of the biggest pollution problems facing U.S. waters today.

Storm water is a particular problem along densely populated stretches of the South Shore, where pavement has replaced open space and storm sewers funnel rainwater to creeks and

estuaries. Excess water that would normally be soaked up by Long Island's sandy soils washes off roads and construction sites, picking up contaminants along the way that can lead to beach closures and prevent safe shellfish harvesting.

At the Lindenhurst library lot, the permeable paving stones themselves absorb some water; more is drained through the gravel that surrounds them. Precipitation trickles down through three progressively finer grades of gravel that help filter out pollutants before the rainwater reaches the soil, according to Bob Retnauer of RDA Landscape Architects in St. James, which designed the lot.

"We already have a great natural resource that has been severely compromised by storm water," Ward said. "This parking lot shows an alternative that is, in some part, an answer to a long-standing problem."

Porous Pavement



Porous Pavement





Engineered Bioswale

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Images: City of Rome

Street Trees or Urban Forestry Programs



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Image: James Gensel Fagan Engineers



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CHAMBERS COUNTY, NY



Green Roofs

Image: Monroe County



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Green Roofs



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Midstate Center, Albany

Stormwater Retrofit

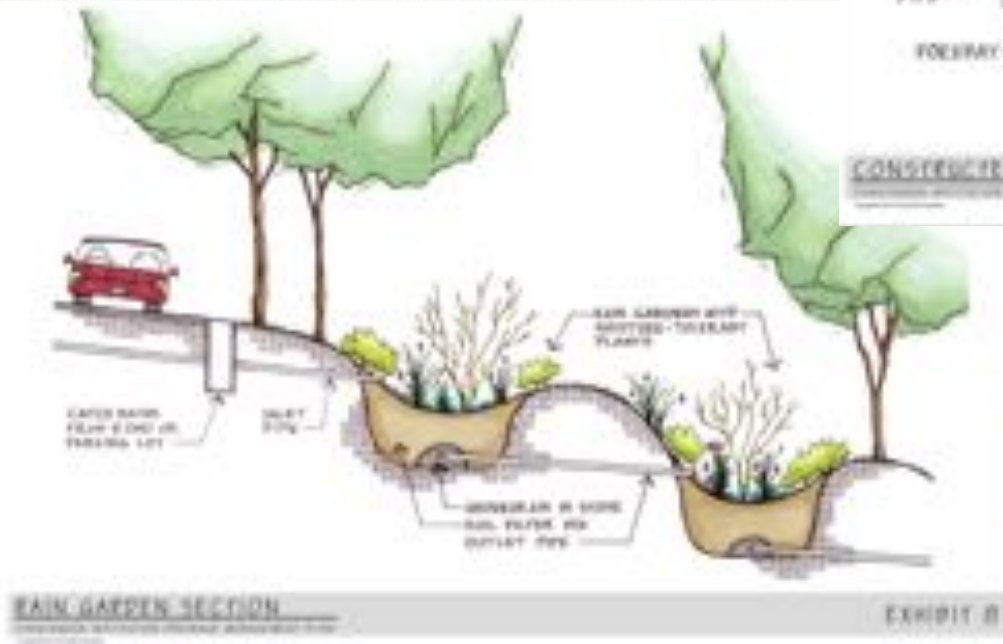
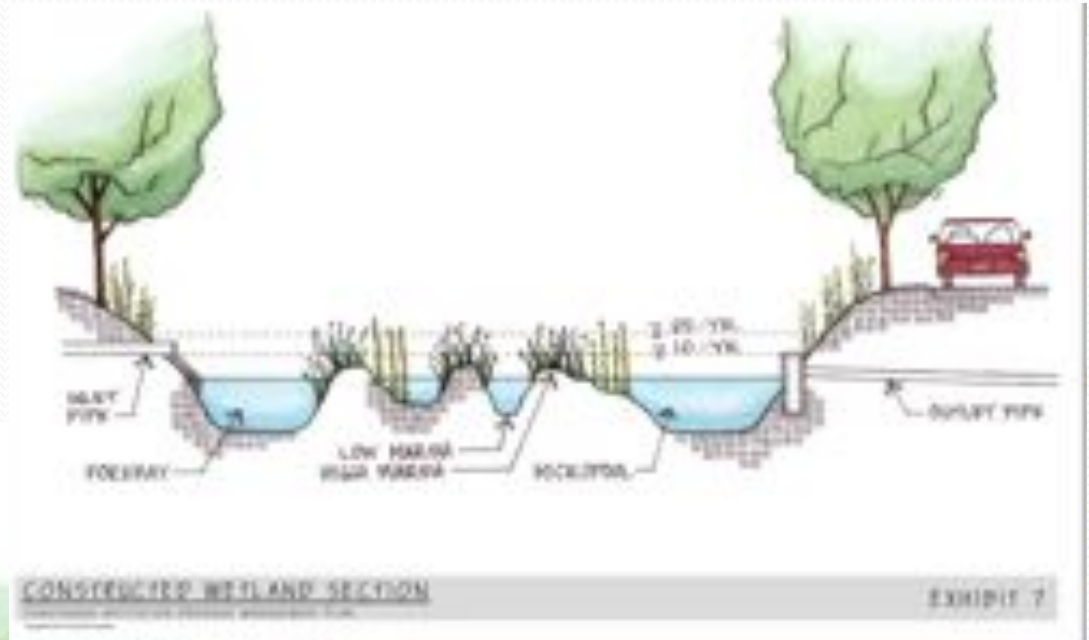


EXHIBIT 4 - RECOMMENDED DRAINAGE IMPROVEMENTS



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Stormwater Retrofit



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THE CHANDLER INSTITUTION

GIGP Round 3 Goals

- **Directed focus to Green Infrastructure:**
 - Protect and improve water quality
 - Spur innovation in the field of stormwater management
 - Build capacity to build and maintain green infrastructure
 - Facilitate transfer of new technologies and practices



GIGP 3 Overview

- Regional Economic Development Councils
- \$20 Million
- Green stormwater infrastructure projects
- No cap
- Up to 90% funding for eligible costs
- **Deadline: October 31, 2011**



GIGP 3 – \$20 million for eligible projects

- Permeable pavement
- Bioretention / bioinfiltration
- Green roofs or green walls
- Downspout disconnection
- Stream daylighting



GIGP 3 – \$20 million for eligible projects

- Stormwater street trees or urban forestry programs
- Stormwater harvesting and reuse
- Construction or restoration of wetlands, floodplains, or riparian buffers



GIGP 3 Selection Process

- Regional Economic Development Council Endorsement 20%
- Agency Scoring Criteria 80%
 - **35% Strategies** - water quality protection
 - **20% Performance Measures** - water quality metrics
 - **15% Implementation** - likelihood of project success, O&M plan and capacity to implement
 - **15% Leveraging** - leverage resources and spur innovation
 - **10% Process** - project development & outreach/education opportunities
 - **5% Vision** - workforce development, community revitalization, healthy neighborhoods, reduce dependence on oil



Awards

Projects will be announced by the end of the year



Keys to Successful Adoption of Green Infrastructure

- Proper Design
- Sound Construction
- Regular Maintenance
- Ongoing Monitoring
- Available Training



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Financing for a Sustainable Future

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