NEW YORK
STATE OF
OPPORTUNITY.

Environmental
Facilities Corporation

Black River Watershed Conference

Port Leyden, NY

September 22, 2015

Community Resiliency & Green Infrastructure

NYS Environmental Facilities Corporation

Programs Include:

- ✓State Revolving Fund Program
- ✓Small Business Environmental Assistance Program
- ✓Clean Vessel Assistance Program
- ✓Green Innovation Grant Program

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Green Innovation Grant Program (GIGP) Goals

- Protect and improve water quality
- Spur innovation
- Build green capacity -- locally and beyond
- Facilitate the transfer of these technologies to other areas of the State
- **$14.85 million in funding available for 2015**

What is “Green Infrastructure”?

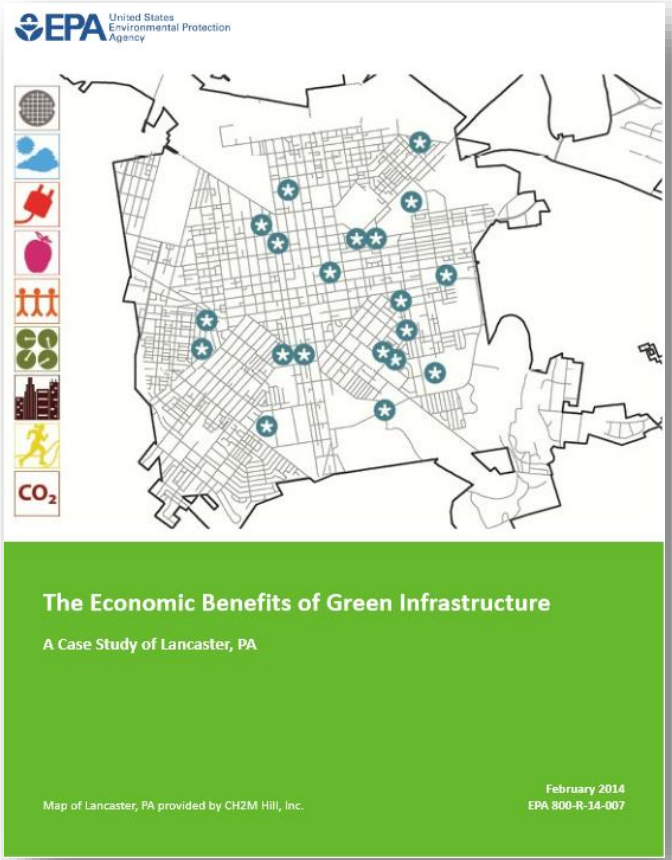
- **Green stormwater infrastructure** includes a wide array of practices that provide a cost-effective way to manage wet weather by maintaining and restoring a more natural hydrology.

- On a **regional scale**, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands that help reduce overall imperviousness in a watershed.

- On the **local scale** green infrastructure consists of site- and neighborhood-specific practices such as bioretention systems, stormwater street trees, green roofs, permeable pavements and cisterns.

Source: US EPA Green Project Reserve FY 2013

Why use Green Infrastructure?



It is Cost Effective

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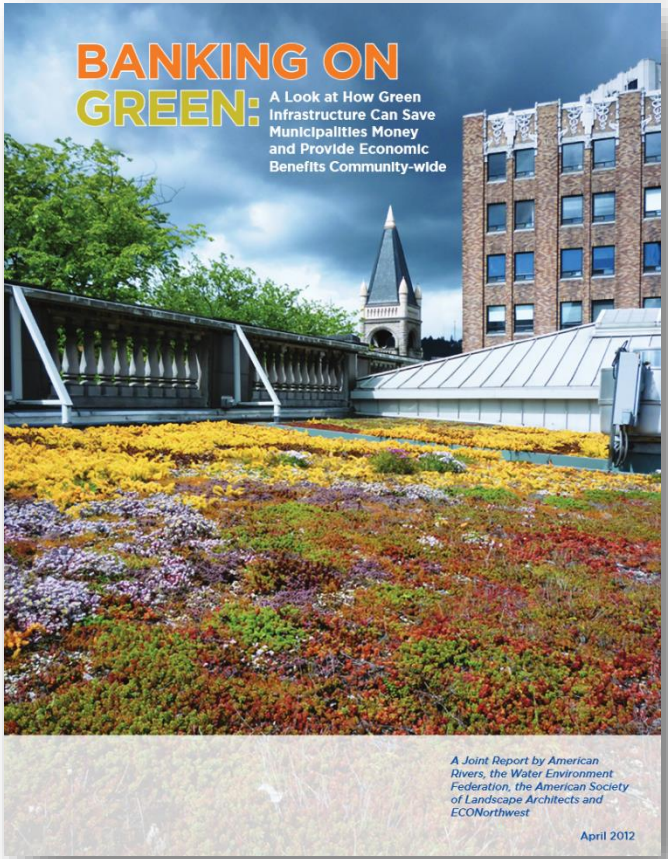
Why use Green Infrastructure?



Economic Benefits

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Why use Green Infrastructure?

New York State

Stormwater Management Design Manual

January 2015

Originally Prepared by:
Center for Watershed Protection
8391 Main Street
Ellicott City, MD 21043

Updated by:
New York State
Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Andrew M. Cuomo, Governor Joseph Martens, Commissioner

It is the New York Standard

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2010 Expiration Date: January 28, 2015

William R. Adriance
Chief Permit Administrator

William R. Adriance January 28, 2010
Authorized Signature Date

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

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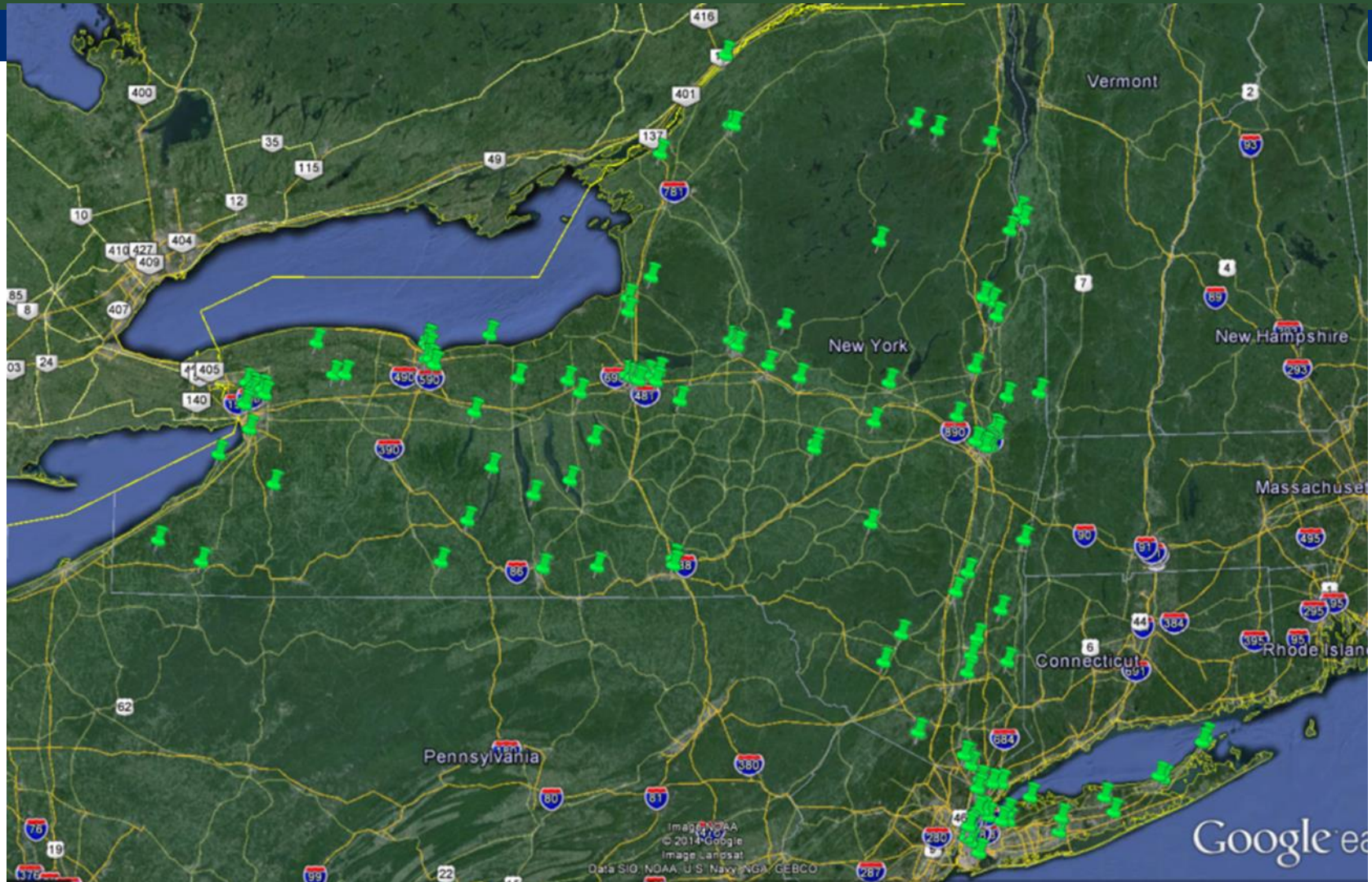
Green Infrastructure and Resilience

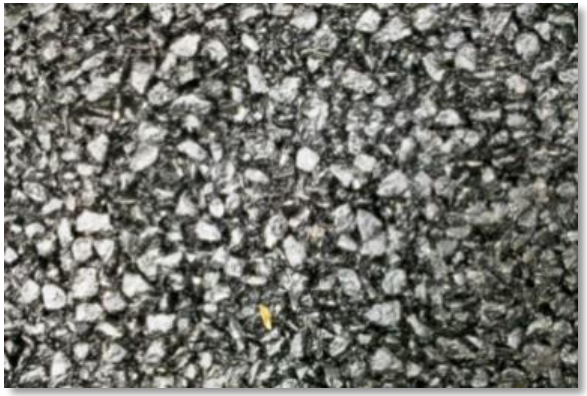
GI Projects In NYS



Practices Eligible for GIGP Funding

- Porous Pavements
- Bioretention
- Downspout Disconnection
- Stormwater Harvesting & Reuse
- Stormwater Street Trees/ Urban Forestry
- Green Roofs and Green Walls
- Construction or Restoration of Wetlands, Floodplains, or Riparian Buffers
- Stream Daylighting

Permeable Pavement



- Porous asphalt
- Porous concrete
- Concrete unit pavers
- Reinforced turf

Project:
Porous Asphalt
Lake George, NY

Project:
Porous Asphalt
Lake George, NY

Project:
Porous Asphalt
Lake George, NY

Bioretention & Rain Gardens

Project:
Retrofit of a Municipal Parking Lot
North Tonawanda

Project:

Retrofit of a Municipal Parking Lot
North Tonawanda

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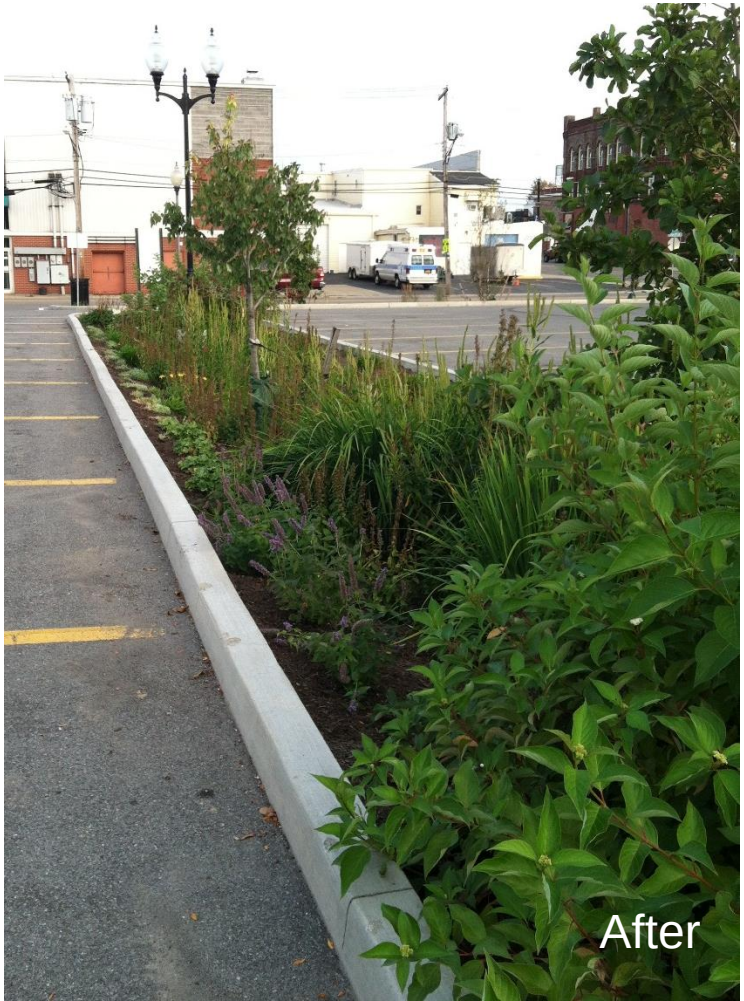
Project:
Retrofit of a Municipal Parking Lot
North Tonawanda



Project:
Retrofit of a Municipal Parking Lot
North Tonawanda

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Project:
Retrofit of a Municipal Parking Lot
North Tonawanda

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Green Streets:
Using Multiple GI Practices

Project:
Buffalo Sewer Authority
CSO Reduction
Demonstration Projects

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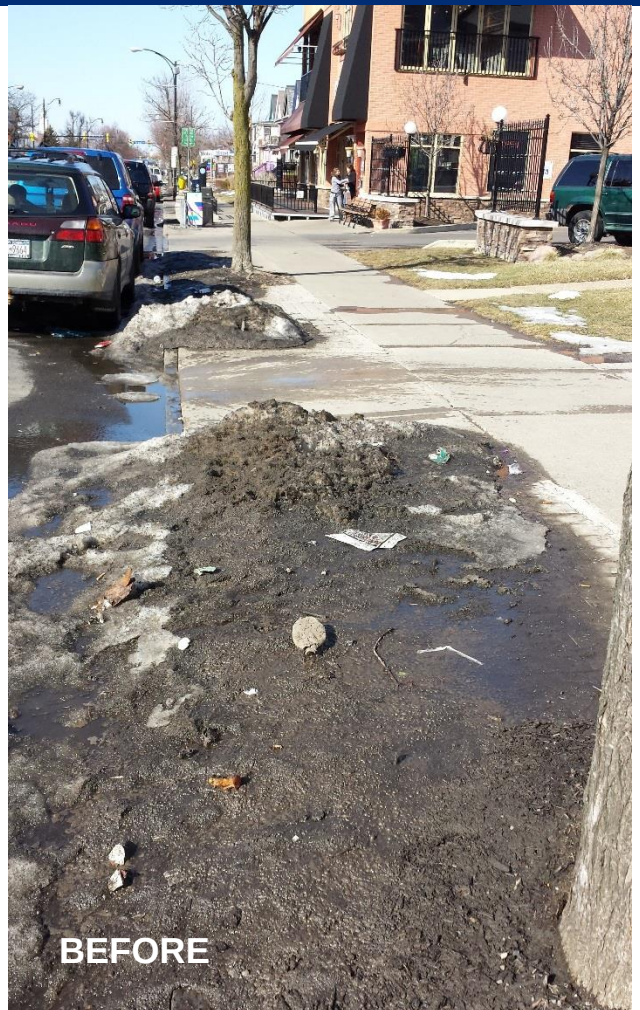
Project:
Buffalo Sewer Authority
CSO Reduction
Demonstration Projects



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Project:
Buffalo Sewer Authority
CSO Reduction
Demonstration Projects

AFTER

Project:
Buffalo Sewer Authority
CSO Reduction
Demonstration Projects

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Project:
Canandaigua Bioretention & Porous Pavement Retrofit

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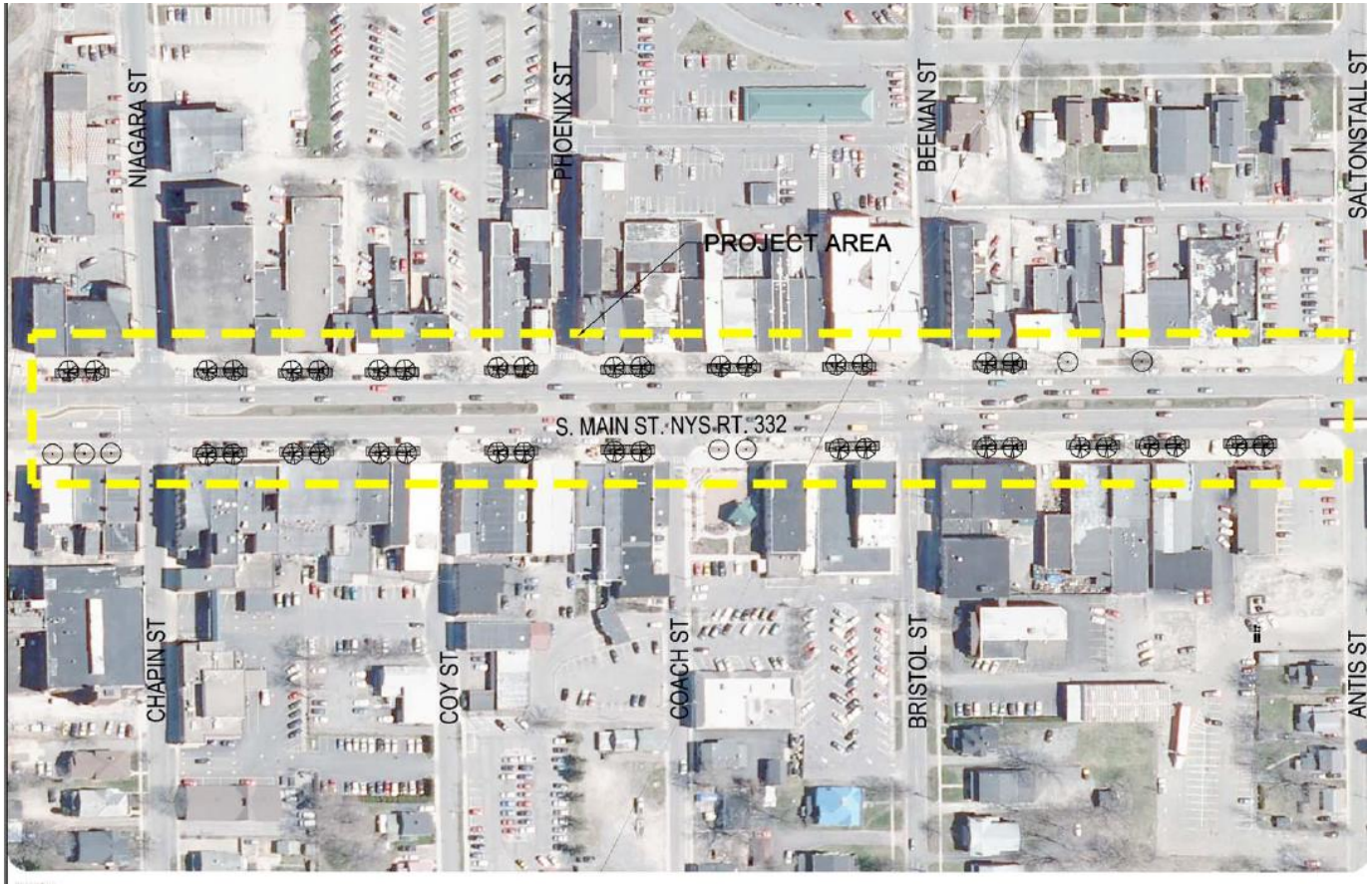
Before

Project:
Canandaigua Bioretention & Porous Pavement



Construction

Project:
Canandaigua Bioretention & Porous Pavement

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Project:
Bioretention &
Porous Pavement
Canandaigua

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Before

Project:
Porous Pavement & Bioretention
Syracuse, NY

Construction

Project:
Porous Pavement
& Bioretention
Syracuse, NY

Construction

Project:
Porous Pavement & Bioretention
Syracuse, NY

Project:
Porous Pavement & Bioretention
Syracuse, NY

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Downspout Disconnection

&

Stormwater Harvesting and Reuse

Stormwater Harvesting & Reuse

Project:
Urban Grow Center
Troy, NY

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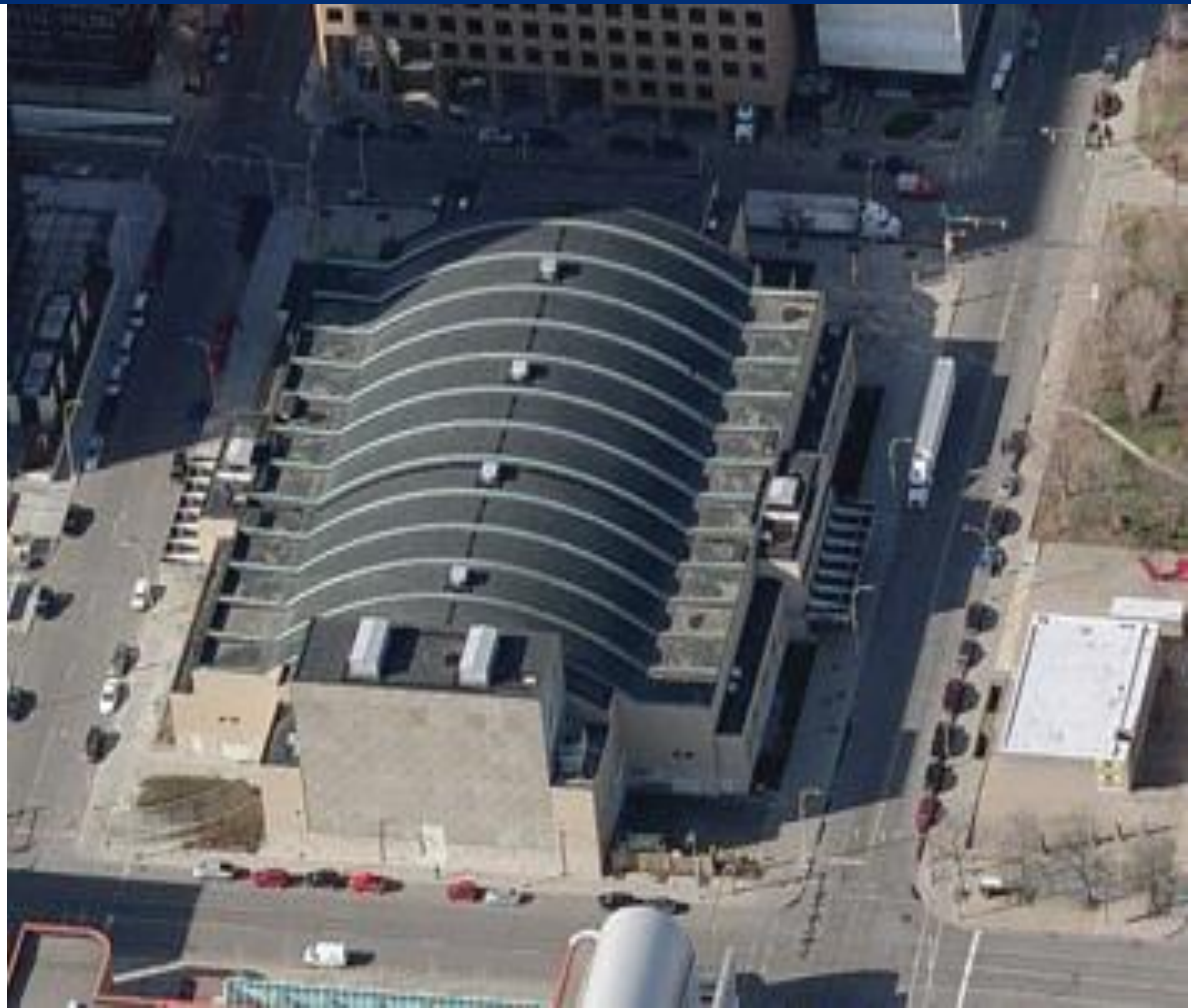
Project:
War Memorial Rainwater Reuse System Project
Syracuse, NY



Project:
War Memorial Rainwater Reuse System Project

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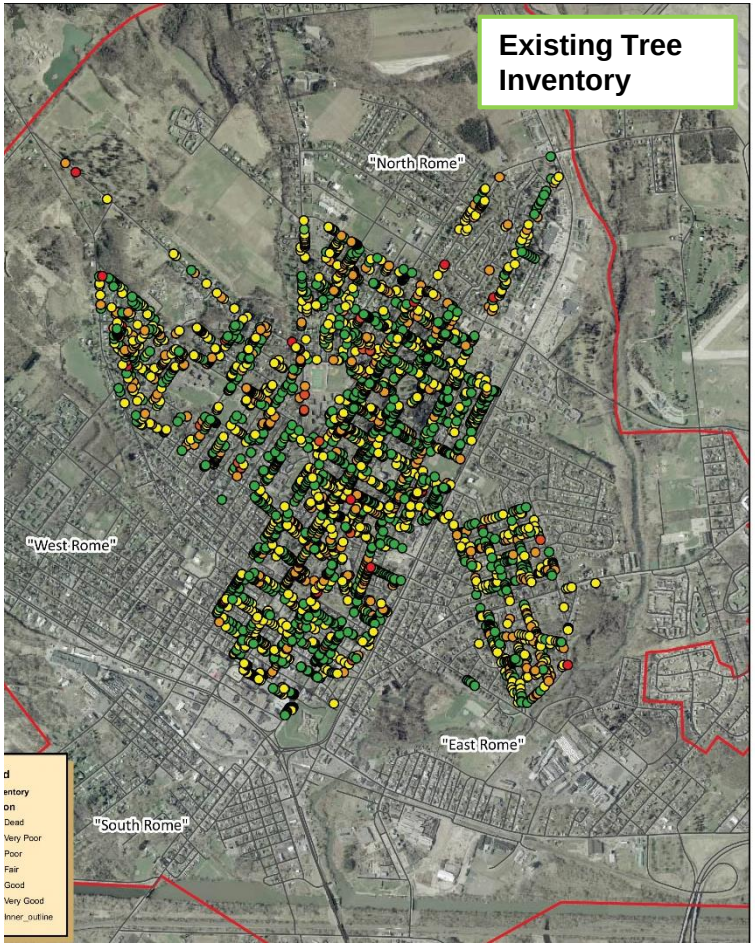
Onondaga County

Urban Street Trees/ Urban Forestry Programs

Project:
Urban Street Tree Canopy Restoration
City of Rome, NY

Project:
Urban Street Tree Canopy Restoration City of Rome, NY



Construction

Project:
Urban Street Tree Canopy Restoration
City of Rome, NY

After

Project:
Urban Street Tree Canopy Restoration
City of Rome, NY

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Green Roofs & Green Walls

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Project:
SUNY College of Environmental Science & Forestry Green Roof
Syracuse, NY

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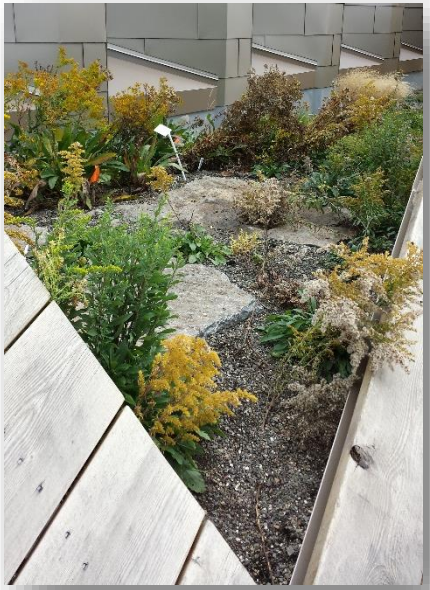
Construction

Project:
SUNY College of Environmental Science & Forestry Green Roof
Syracuse, NY



Project:
SUNY College of Environmental Science & Forestry Green Roof
Syracuse, NY

After

Before

Project:
Court Street Green Roof
Binghamton, NY

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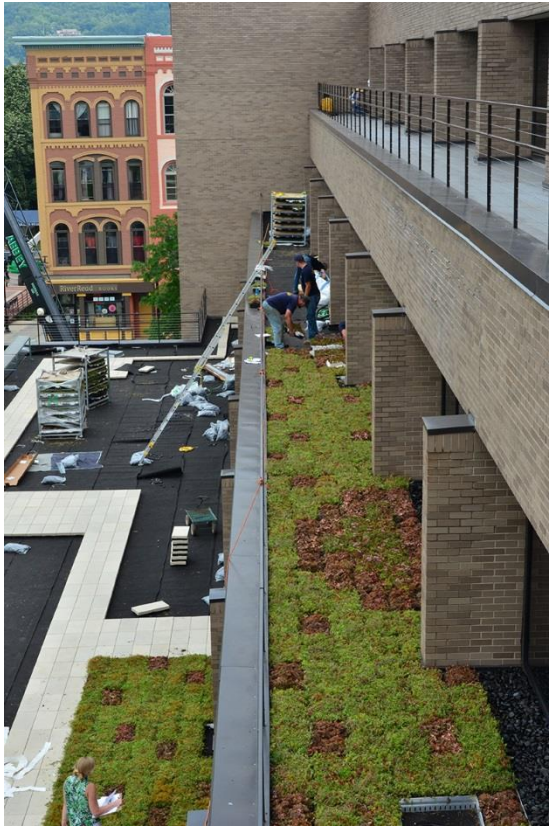

Project:
Court Street Green Roof
Binghamton, NY

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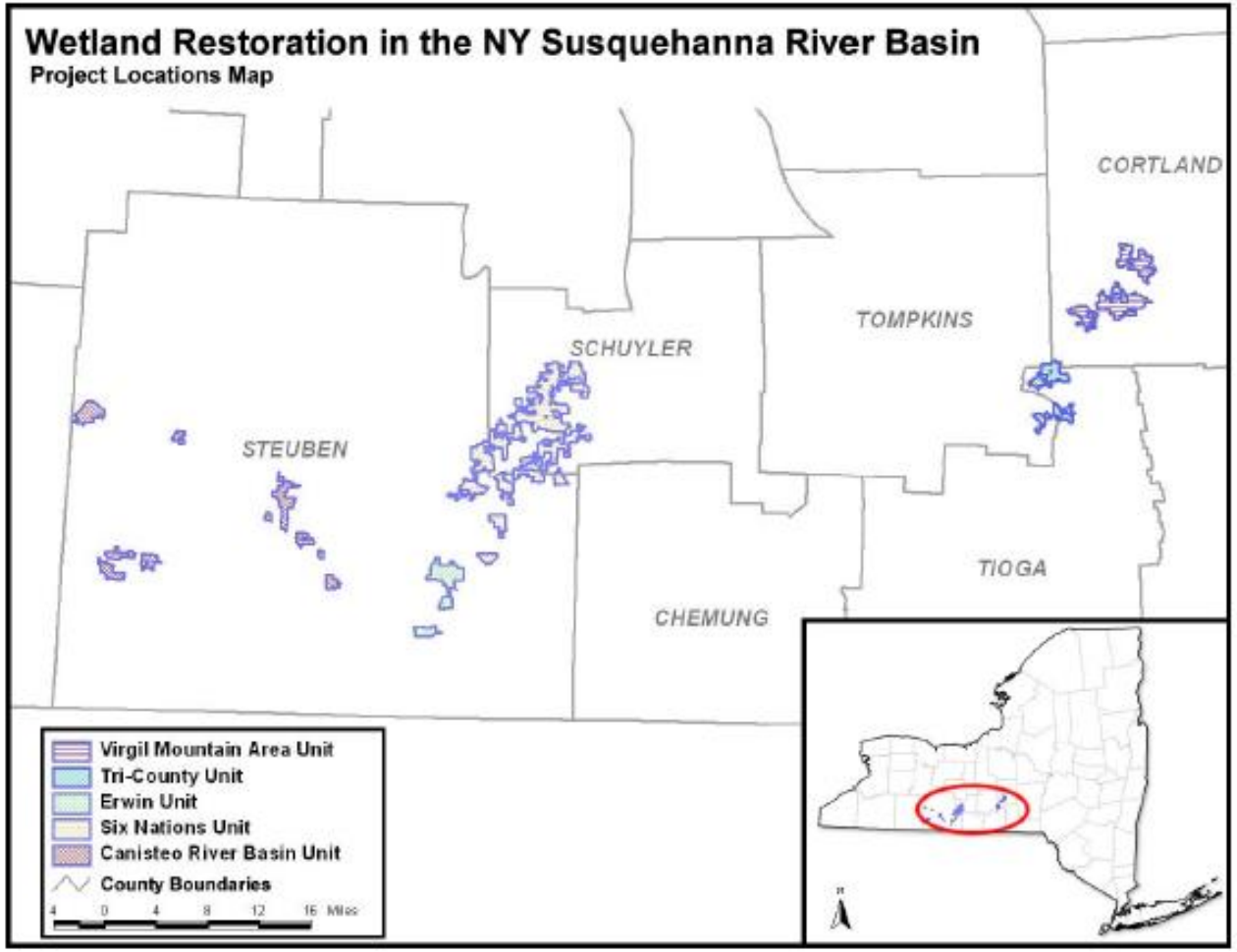
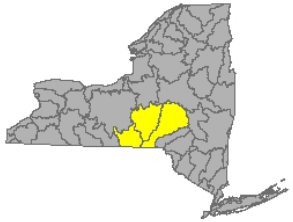
Project:
Court Street Green Roof
Binghamton, NY

Construction/Restoration of Wetlands, Floodplains and Riparian Buffers

Project:
Wetland Restoration in NY's Susquehanna River Basin

Project:
Wetland Restoration and Creation in NY's Southern Tier





Project:
Wetland Restoration in the NY Susquehanna River Basin

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Berm Removal for Stream and Floodplain Restoration

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Project:
Chubb River Dam Removal & Wetland Restoration
Lake Placid, NY

Construction

Project:
Chubb River Dam Removal
Lake Placid, NY

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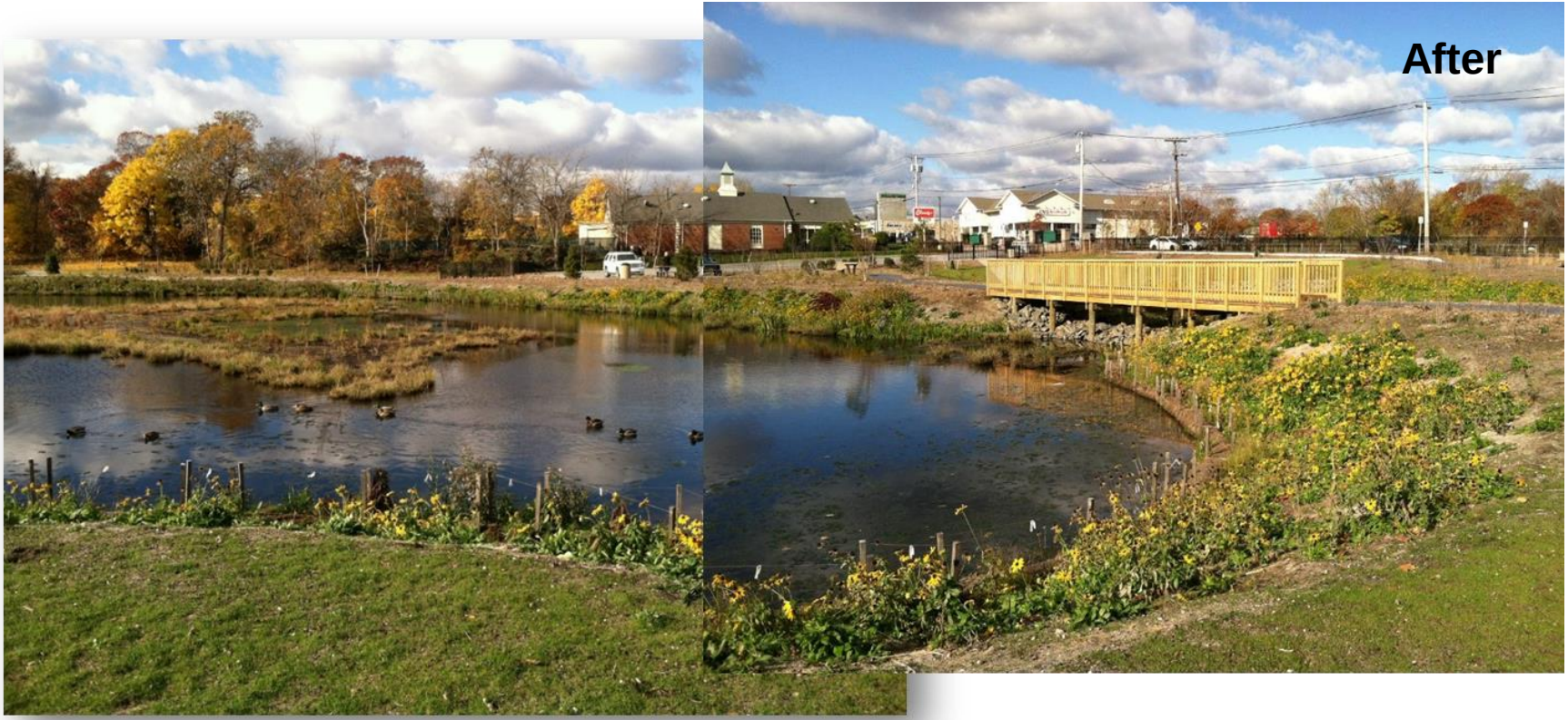
Project:
Chubb River Dam Removal
Lake Placid, NY

Project:
Wetland Construction & Riparian Buffer Restoration
Brookhaven, NY

Construction

Project:
Wetland Construction & Riparian Buffer Restoration
Brookhaven, NY



Project:
Wetland Construction & Riparian Buffer Restoration
Brookhaven, NY

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After

Project:
Wetland Construction & Riparian Buffer Restoration
Brookhaven, NY

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Project:
Wetland Construction & Riparian Buffer Restoration
Brookhaven, NY

Stream Daylighting

Project:
Daylighting of the Saw Mill River
Yonkers, NY

Image: Saw Mill River Coalition

Project:
Daylighting of the
Saw Mill River
Yonkers, NY

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Construction

Project:
Daylighting of the
Saw Mill River
Yonkers, NY

Project: Daylighting of the Saw Mill River -- Yonkers, NY

Green Innovation Grant Program (GIGP)

- Protect and improve water quality
- Spur innovation
- Build green capacity -- locally and beyond
- Facilitate the transfer of these technologies to other areas of the State
- **$14.85 million in funding available for 2015**

Applying for GIGP

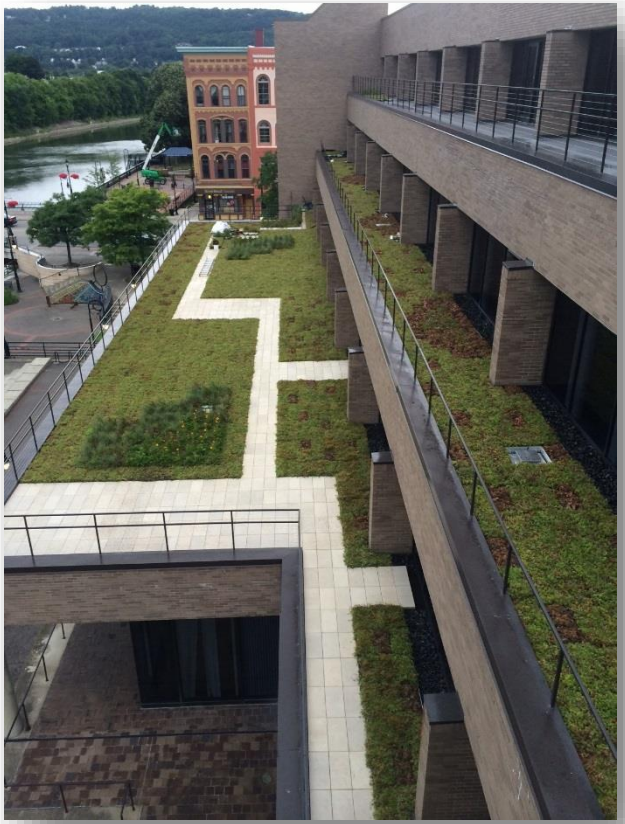
Apply through the

Consolidated Funding Application

(CFA) http://nyworks.ny.gov

Required Application Elements:

- **Feasibility Study**
- **Existing Conditions Plan**
- **Conceptual Site Plan**
- **Site Photographs**



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Tana Bigelow
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Albany, NY 12207
518-402-7461

www.efc.ny.gov

Financing for a Sustainable Future

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