



**Environmental  
Facilities Corporation**



# **Integrated Solutions Construction (ISC) Grant**

## **ISC Program Overview**

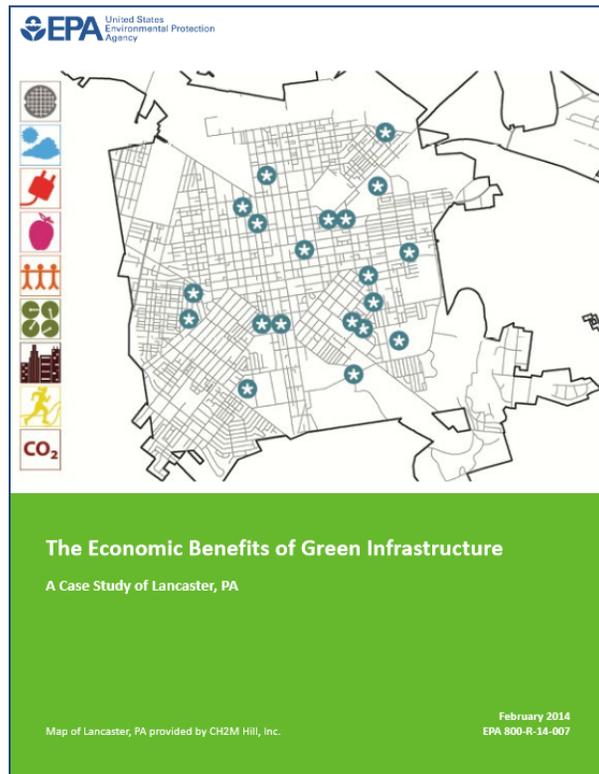
**September 7, 2016**

## What is Green Infrastructure?

- **Green stormwater infrastructure** includes a wide array of practices that manage stormwater using natural systems and processes.
- 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, and permeable pavements.

*Source: US EPA Green Project Reserve FY 2012*

# Why should I use Green & Gray Infrastructure?



In 2014, an EPA Case Study determined that the City of Lancaster, PA, through the combination of green and gray infrastructure:

- Reduced gray infrastructure capital costs by \$121.7 million
- Reduced annual wastewater pumping and treatment costs by \$661,000

# Typical Wastewater Infrastructure Issues

- Failing sewer systems
- Combined sewer overflows (CSOs)
- Sanitary sewer overflows (SSOs)



THE POSTSTAR News

EDITOR'S PICK FEATURED

## When it rains, it overflows into the Hudson River

MAURY THOMPSON thompson@poststar.com Aug 6, 2016 2

# Taking a Traditional Gray Project ...

## and Integrating Green



# How Can Combining Green Infrastructure with Gray Infrastructure Benefit My Community?

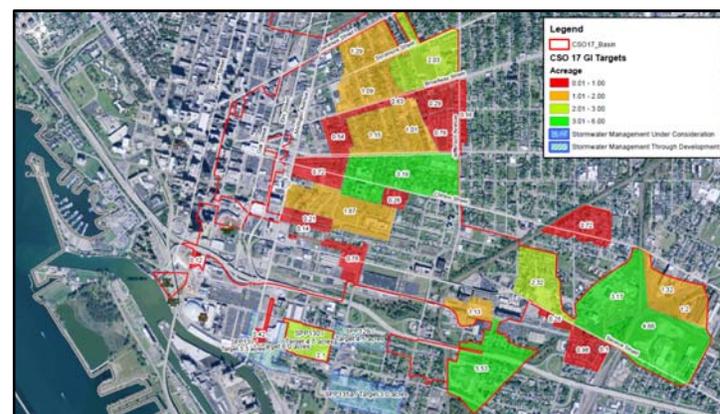
- Water management and flood alleviation
- Creating areas of natural beauty
- Health and well-being
- Land and property values
- Climate change adaptation and mitigation
- Recreation
- Biodiversity

*Concept Image  
Green Street Pilot Project  
Buffalo, NY*



# Integrating Green Infrastructure into Existing Gray Infrastructure Planning Efforts

- Green infrastructure
  - considered as early in project planning as possible,
  - but no later than preliminary design;
  - results in a comprehensive plan to address project needs
  
- EFC now requires green infrastructure to be evaluated as a stormwater solution for all CWSRF Projects
  - *“All projects involving stormwater, including inflow abatement, must evaluate a green, or green/gray combination, infrastructure alternative.”*



*City of Buffalo,  
Green Infrastructure Evaluation*

## What are Additional Considerations When Planning for a Green/Gray Project?

- Depth to seasonal high groundwater level
- Depth to bedrock
- Soil types & infiltration rates
- Is there filled material?
- Availability of land, suitable size, configuration, title
- Historically significant features?
- Location of existing utilities
- Opportunities to combine with other capital projects to reduce costs

## Integrated Solutions Construction Grant Program

- Up to \$8 million, in total, available in grant for the incorporation of green stormwater infrastructure practices into CWSRF financed CSO/SSO/stormwater projects.
- Will fund 50% of the cost of construction of GPR-eligible practices, as defined by EPA's Green Project Reserve Green Stormwater Infrastructure Guidance (GPR Section 1.0 Eligible).
- Green infrastructure practices must remove stormwater to a minimum of 25% of water quality volume from a combined, sanitary, or storm sewer, as defined in the NYS DEC Stormwater Design Manual.

# Integrated Solutions Construction Grant Program

(Continued)

- Be listed on the Annual Project Priority List of the 2017 IUP and either have no short term financing or short term financing closed after 10/1/15. **Grant is available only in conjunction with CWSRF financing. EFC will not fund grant-only projects.**
- There is a \$5 million limit on EFC grants (*excluding GIGP and EPG*) awarded to individual municipalities over a five year period.  
*See Hardship Financing and Grant Eligibility Policy for additional detail.*

## Who Is Eligible for Funding?

- County
- City
- Town
- Village
- District Corporation
- County or Town Improvement District



- Any public benefit corporation or public authority
- Recognized Indian nation or tribe with a reservation wholly or partly within the boundaries of NYS



## Example Projects

# CASE STUDY

## Quail Street Albany, NY

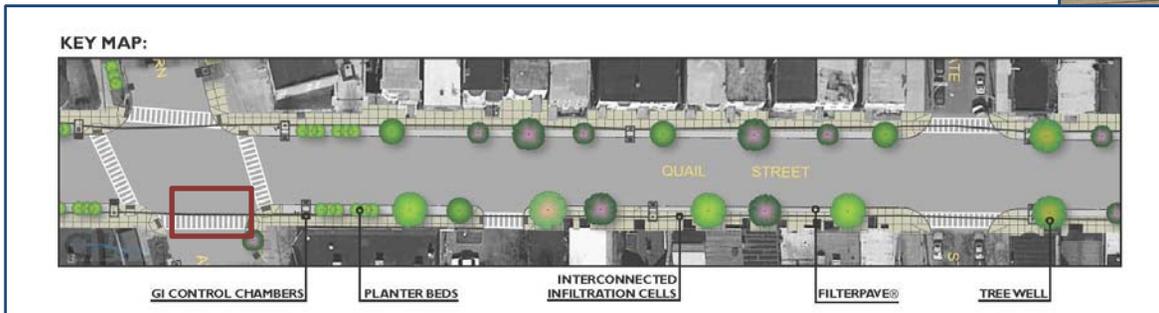
- Combined sewer overflows
- Localized flooding and basement backups
- Need to reduce peak flows from combined systems
- Part of a comprehensive Citywide green/gray solution

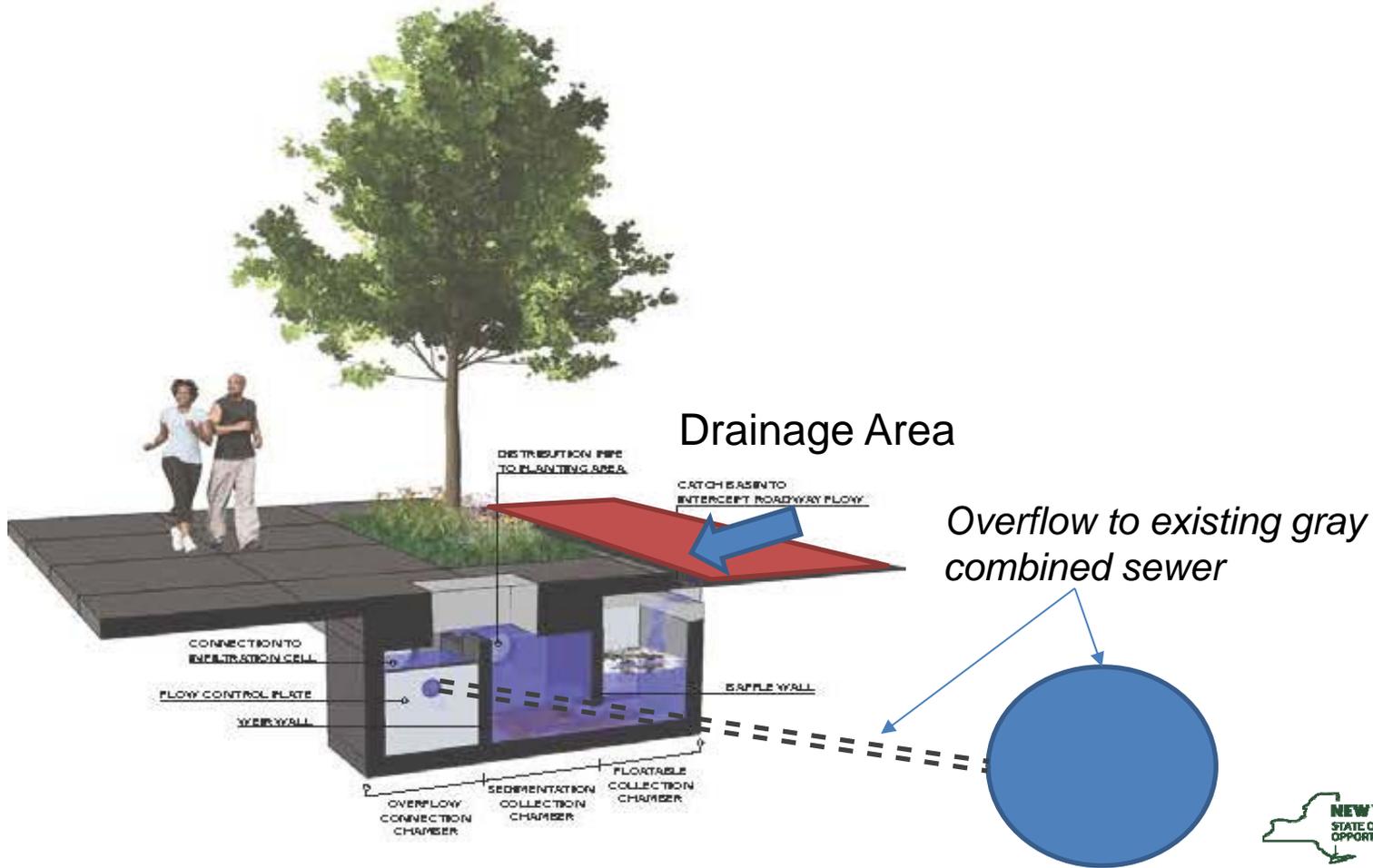


*BEFORE - Quail Street  
Albany, NY*

## Components:

- Bioretention planting beds
- Porous pavement
- Storage in the structural soil
- Green infrastructure control chambers
- Interconnected infiltration cells
- Stormwater street trees





## CASE STUDY

### Washington Street Syracuse, NY

- Combined sewer overflows
- Need to reduce flows entering combined systems
- Part of a comprehensive regional green/gray solution



*BEFORE - Washington Street  
Syracuse, NY*

## Components:

- Bioretention planting beds
- Porous pavement
- Storage in the soil
- Stormwater street trees



*Bioretention and  
stormwater street trees*



*Permeable pavers  
with infiltration underneath*

 Drainage Area

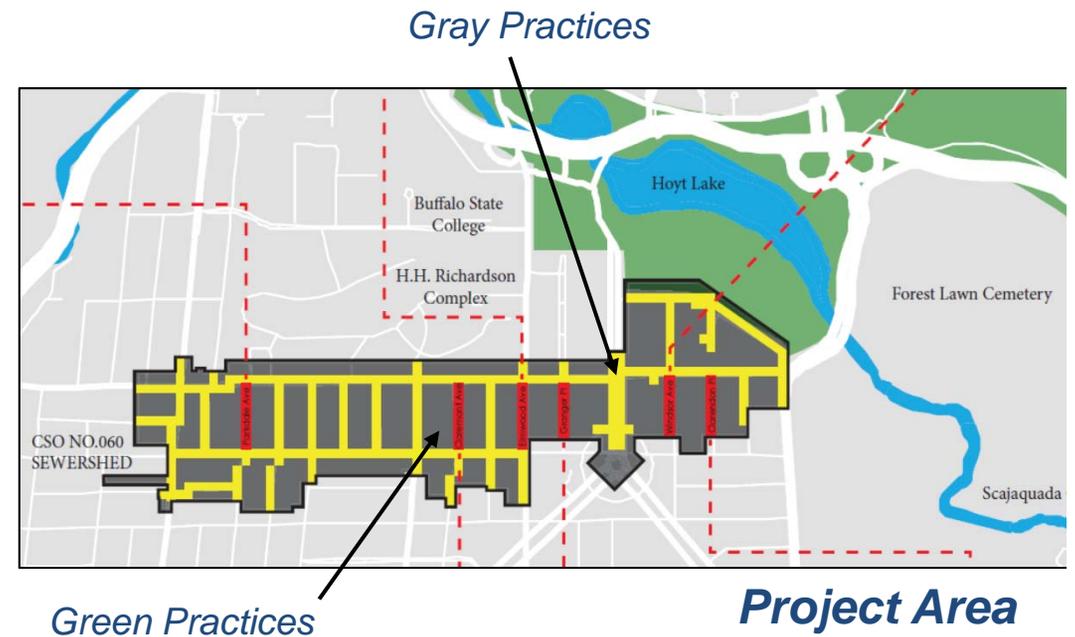
# CASE STUDY

## CSO 60 - Green / Gray Separation Buffalo, NY

- Combined sewer overflows
- Part of a comprehensive Citywide green/gray solutions

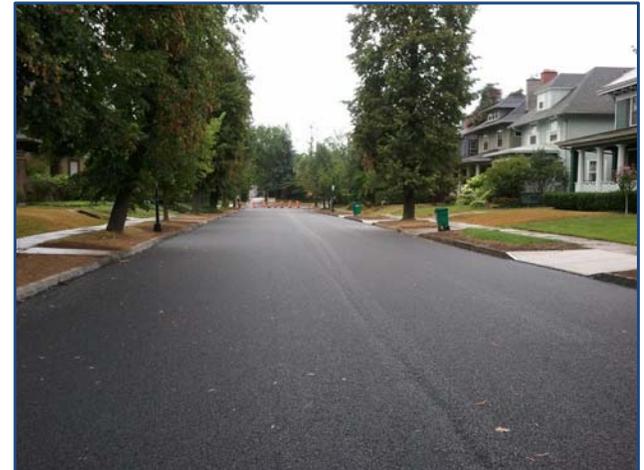
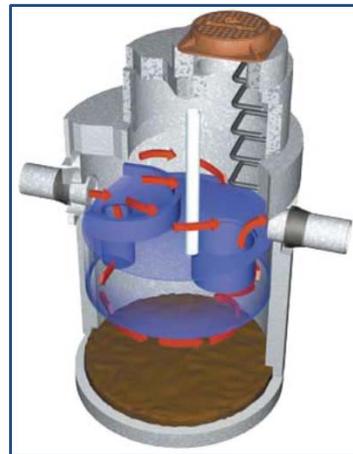


Photo Credit: Buffalo  
Niagara Riverkeeper



## Components:

- Bioretention planting beds
- Porous pavement
- New stormwater catch basins
- Gray separate storm sewers
- Hydrodynamic separators





How Do I Apply?

## ISC Grant - Application Process

To be considered for an ISC grant, applicants must:

- Be currently listed on the Annual List of the 2017 IUP  
(see *EFC website for information on how to list a project*)
- Submit an acceptable CWSRF application for financing by **March 1 , 2017**  
that indicates an interest in an ISC grant\*
- Submit an engineering report amendment that describes the green infrastructure features (*contact EFC for details*)
- Additional information on EFC's website: <http://efc.ny.gov/IUP>

*\*NOTE: Grant can only be secured with a CWSRF loan.*

## ISC Grant Projects

- EFC to give preference to projects that:
  - ✓ Result in the greatest water quality improvement & removal of stormwater from sewers through the use of integrated infrastructure
  - ✓ Are positioned to advance to construction



## ISC Grant - Program Requirements

- All awarded projects must comply with the following requirements:
  - ✓ Environmental Review Requirements (NEPA-like review)
    - *Requires a coordinated review of Type I or Type II Action*
  - ✓ Minority & Women Owned Business Enterprise (MWBE)
  - ✓ Smart Growth
  - ✓ Davis-Bacon Prevailing Wage
  - ✓ American Iron and Steel



## ISC Grant – Ineligible Activities

Projects costs which are NOT GRANT ELIGIBLE include:

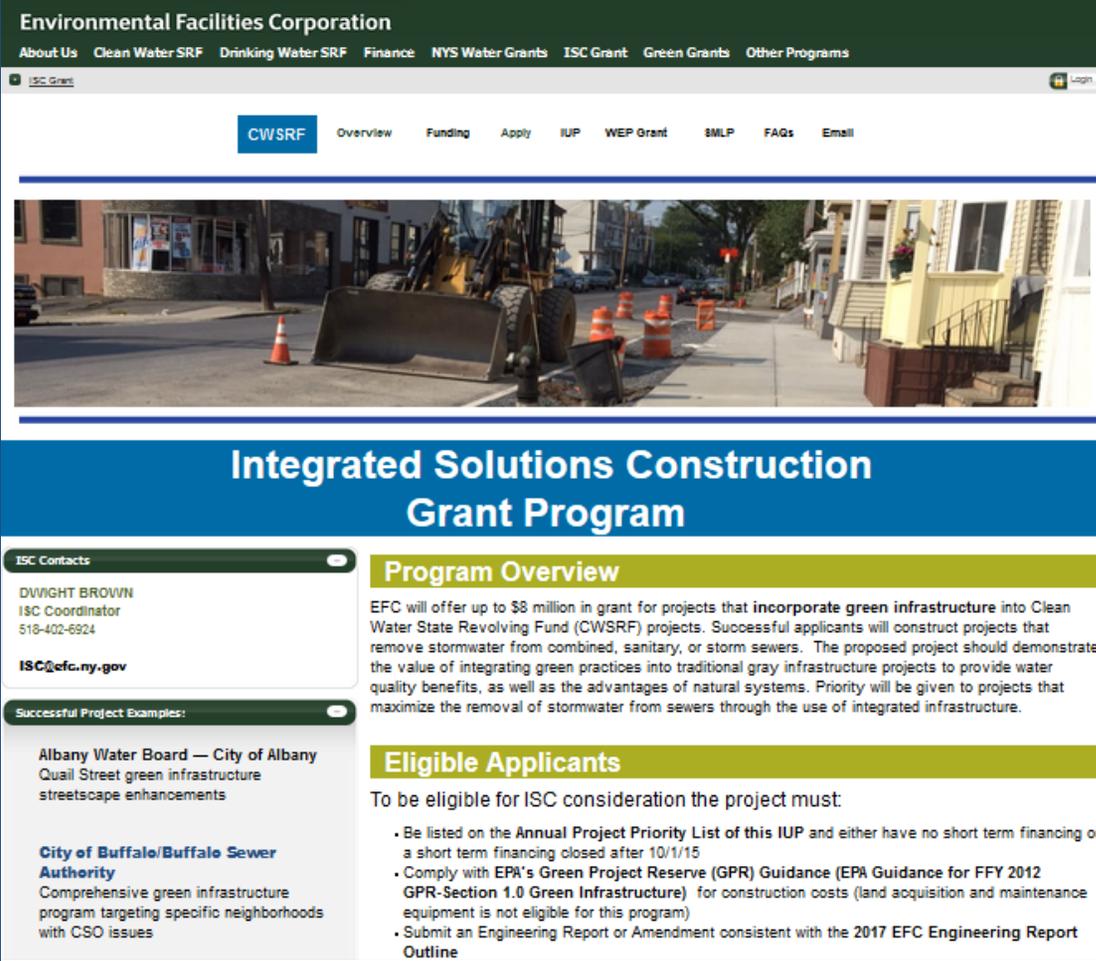
- Equipment for maintenance of green infrastructure, such as vactor trucks, street sweepers, sewer cleaners, etc.
- Land acquisition & landfill projects
- Wetland construction or restoration required as compensation (*mitigation*) for adverse impacts to wetlands or other environmental damage caused through construction activities
- Remediation of hazardous waste

## Key Program Dates

Deadline	Description
September 21, 2016	ACEC / EFC Webinar for consulting engineers- <i>How to green up your CWSRF project and how to pay for it – EFC’s new Integrated Solutions Construction Grant</i>
March 1, 2017	<b>Application deadline</b> – acceptable CWSRF application indicating interest in ISC grant (or letter) is due by this date, as well as a revised engineering report that identifies green/gray infrastructure.

# Additional Resources

- Chapter 5, as well as the Bioretention Sections of Chapter 6, of the 2015 NYS DEC Stormwater Design Management Manual
- EFC website:  
[www.efc.ny.gov/ISC](http://www.efc.ny.gov/ISC)



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**Integrated Solutions Construction Grant Program**

**ISC Contacts**

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**Successful Project Examples:**

Albany Water Board — City of Albany  
Quail Street green infrastructure streetscape enhancements

City of Buffalo/Buffalo Sewer Authority  
Comprehensive green infrastructure program targeting specific neighborhoods with CSO issues

**Program Overview**

EFC will offer up to \$8 million in grant for projects that **incorporate green infrastructure** into Clean Water State Revolving Fund (CWSRF) projects. Successful applicants will construct projects that remove stormwater from combined, sanitary, or storm sewers. The proposed project should demonstrate the value of integrating green practices into traditional gray infrastructure projects to provide water quality benefits, as well as the advantages of natural systems. Priority will be given to projects that maximize the removal of stormwater from sewers through the use of integrated infrastructure.

**Eligible Applicants**

To be eligible for ISC consideration the project must:

- Be listed on the **Annual Project Priority List of this IUP** and either have no short term financing or a short term financing closed after 10/1/15
- Comply with EPA's **Green Project Reserve (GPR) Guidance (EPA Guidance for FFY 2012 GPR-Section 1.0 Green Infrastructure)** for construction costs (land acquisition and maintenance equipment is not eligible for this program)
- Submit an Engineering Report or Amendment consistent with the **2017 EFC Engineering Report Outline**



# Environmental Facilities Corporation

[www.efc.ny.gov](http://www.efc.ny.gov)

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*Financing for a Sustainable Future*