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GREEN IMPROVEMENT FUND

Program Description and Application

July 2012

Green Improvement Fund Program Description

1. Background:

Onondaga's County's Department of Water Environment Protection (WEP) is sponsoring a grant incentive program, the Green Improvement Fund (GIF), to provide financial incentives for the installation of Green Infrastructure (GI) Technologies, including but not limited to:

- a. Rain Gardens
- b. Bioretention
- c. Dry Wells
- d. Underground Infiltration Systems
- e. Green Roofs
- f. Porous Pavement
- g. Tree Plantings
- h. Tree Trenches
- i. Planter Boxes
- i. Cistern Systems
- k. Added Green Space

GIF Grant funding is intended to offer assistance to Applicants installing GI technologies as an aspect of the development, redevelopment, and/or retrofitting of certain classes of privately owned properties (commercial, business, and not-for profit owned properties) in the Clinton, Harbor Brook and Midland Combined Sewersheds (CSS), as outlined in the *Green Improvement Fund Program Boundary Map*, and generally located in the City of Syracuse.

2. Eligibility:

An Owner of a commercial, business, or not-for-profit facility located within the GIF Boundary, who is proposing to undertake an otherwise privately sponsored development or redevelopment project, can apply for a GIF grant. An "Owner" is defined as any person or business that can provide evidence to Onondaga County of a fee simple title or a lease to the property. Tenant applicants possessing a lease to the property and/or commercial facility must have the written consent of the Owner.

3. Eligible Project Reimbursement Costs for a GIF grant:

Eligible reimbursement expenses include: (1) design and engineering costs, as furnished by a New York State Licensed Design Professional (architect, landscape architect, or engineer), for specific Green Infrastructure measures for the property; (2) structural analysis and soil testing costs, if required, to determine suitability of Project; (3) development of a maintenance plan to ensure proper operation of GI infrastructure after construction; and (4) labor and material construction costs to modify the existing site and install Green Infrastructure that meets the minimum program thresholds and exceeds the stormwater capture requirements as regulated by state or local permit requirements.

All projects funded through this program shall comply with any and all environmental laws and applicable regulatory permits. The owner is responsible for obtaining all applicable permits prior to construction. Onondaga County (the County) must review all plans and specifications and verify that the proposed incorporation of Green Infrastructure will reduce stormwater runoff beyond what is required by state and local MS4 permit requirements. No funding is guaranteed prior to full review and approval by the County.

4. Application Process:

The GIF application process will be administered by WEP on a rolling, first come/first served basis. Any project Owner seeking GIF funds must complete a GIF Application form, and submit all required documents, including the GIF Application Checklist to:

Onondaga County Department of Water Environment Protection ATTN: GIF Program, Mary Gates 650 Hiawatha Boulevard West Syracuse, NY 13204 (315) 435-5402

Questions may be referred to Paul Legnetto (WEP GIF Program) at 315-435-5402 Ext. 219

5. Retroactive Funding Eligibility:

Projects that begin construction of GI elements prior to application submittal, will no longer be eligible for award to those GI elements. The program will allow projects to begin construction while application review is pending, however, they must notify the County of the construction schedule and move forward at their own risk without formal confirmation of award.

6. Available Funding:

Applicants eligible for a GIF reimbursement grant may receive up to 100% of the eligible costs associated with the implementation of the Green Infrastructure components for a Project. Final award determination will be based primarily on the amount of stormwater reduction (measured by gallons captured annually) achieved through the implementation of Green Infrastructure technologies. Onondaga County will review the project scope and analyze the area being managed through Green Infrastructure.

Grant funding will <u>ONLY</u> cover costs for the installation of Green Infrastructure technologies including, design, testing, and construction costs above and beyond traditional (gray) infrastructure practices. Applicants should strive to be as cost effective as possible in the development of the Project. Onondaga County will also consider cost-effectiveness as a criterion in determining grant awards.

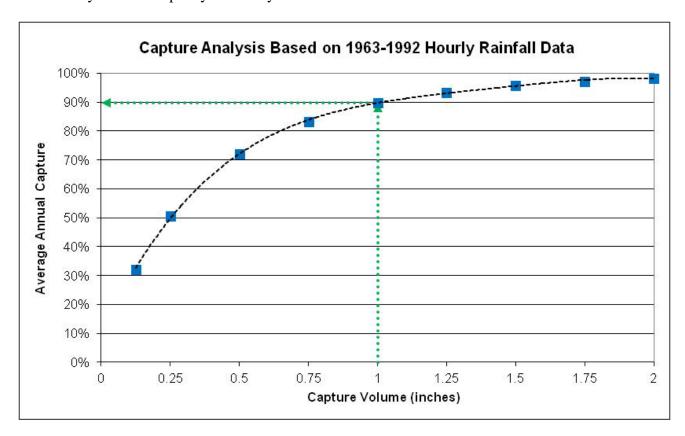
All grants shall be on a reimbursement basis with funds transferred only after the Green Infrastructure is installed, verified by WEP, proof of payments and expenditures is provided, and all other requirements are met. Eligible projects shall have a minimum total storm water reduction of at least 60,000 gallons (on an annual basis) captured through Green Infrastructure enhancements to be eligible for funding.

7. Selection Criteria for Green Infrastructure Projects:

Selection of grant recipients will be based on the following considerations: (1) completeness and accuracy of application; (2) location of Project; (3) amount of surface area managed by Green Infrastructure; (4) potential volume of runoff and CSO reduction in the sewershed; (5) cost effectiveness of Project; (6) location and visibility of Project for educational purposes; and (7) inclusion of an effective maintenance plan.

Specific to CSO reduction, GIF funding requires that the green infrastructure capture at least 0.5 inches of runoff from contributing drainage areas, and does not fund beyond 2.0 inches. The program goal is for green infrastructure to capture 1 inch of runoff from impervious areas because:

- 1 inch will achieve approximately 90% annual capture based on the long-term precipitation record for Syracuse (see graph below)
- 1 inch is similar to the Water Quality Volume (WQv) in the NYSDEC Stormwater Manual
- Increasing the capture volume beyond 1 inch results in diminishing returns for capture because the systems will fill up less often (low efficiency)
- Decreasing capture significantly below 1 inch has reduced benefit to CSOs because the combined sewer system has capacity to convey and treat smaller storms.



Projects that target the 1 inch goal are likely to result in the best efficiency (cost to runoff reduction), and likely find that their GIF award is optimized (grant to total cost).

Onondaga County will select projects that closely meet GIF Program goals based on these selection criteria. Decisions on Projects and level of funding selected for the GIF Program rest solely with Onondaga County, whose decisions shall be final.

Decisions on awards shall be made within 60 calendar days of submittal of a **completed** application. Note: Time spent by WEP obtaining necessary application information will extend the approval process by the number of days information is outstanding.

8. Construction and Monitoring Requirements:

Applicant shall comply with all state and local laws. Grantees must allow WEP and its representatives access to the site upon request pursuant to the life of the contract with the County. The Owner agrees to allow the County use of photos of the project in various stages of completion for promotional purposes and placement on the County websites, including www.savetherain.us.

9. Other Requirements for Receiving GIF Funding:

Each Applicant must complete a detailed cost breakdown of the project which outlines the specific line item for installing the proposed Green Infrastructure improvements. Projects that include additional construction work beyond Green Infrastructure improvements must demonstrate how the Green Infrastructure portion of the Project relates to the overall scope of work.

The Applicant shall provide their proposed site drainage plan (via diagram) indicating how much of the existing surface area once tributary to the Combined Sewer System (CSS) will be removed and diverted to their proposed Green Infrastructure or pre-treated separated discharge. In addition, the volumetric capacity of each proposed Green Infrastructure system must be provided.

The drainage plan must include a description of ground cover characteristics, indicating impervious (non-porous) and pervious (porous) cover types. A calculation of both total impervious cover type and pervious cover type removed from the CSS must be provided. If available, the proposed drainage plan should be provided to WEP in digital format.

10. Project Completion and Reimbursement Procedures:

Once the Grantee has finished installation of Green Infrastructure, the Grantee must contact WEP to schedule a final walk-through to ensure the Project has been installed in accordance with all requirements of the GIF Program and the Grantee's approved application. If WEP determines that the Project has been completed successfully, WEP will issue a Certificate of Completion. After the Certificate of Completion is issued, the Grantee shall have sixty (60) calendar days to submit a completed Claim Form (provided by WEP) requesting payment. Funding awarded under the GIF program will be disbursed in a one-time, lump sum reimbursement payment to the Grantee.

All Applicants must demonstrate that they have a long-term general maintenance agreement and maintenance plan for their Green Infrastructure Project.

Upon completion of Project construction, the Grantee must contact WEP to schedule final procedures and site walk-through. Projects must begin construction within 12 months of Notice of Award, and complete construction within 24 months, or applicants forfeit their award, and need to re-apply. Extenuating circumstances may allow for a justifiable time extension. Grantees can contact WEP via the contact information provided in Section 4.

11. Acceptable Green Infrastructure Technologies:

- a. **Rain Gardens** are shallow surface depressions planted with specially selected native vegetation to treat and capture stormwater runoff, and are sometimes underlain by sand or a gravel storage/infiltration bed. A rain garden is a method of managing stormwater by pooling water within a planting area and then allowing the water to either infiltrate into the surrounding soil or evapotranspire. In addition to managing runoff volume and mitigating peak discharge rates, this process filters suspended solids and related pollutants from stormwater runoff.
- b. **Bioretention** (also known as vegetated swales or bioswales) are area wide, shallow channels with a dense stand of vegetation covering the side, slopes, and bottom. Bioretention swales can be natural or constructed and are designed to promote infiltration, reduce the flow velocity of stormwater runoff, and maximize the amount of time water spends in the swale, which also aids in trapping particulate pollutants and silt. Bioretention swales are commonly used around parking lots.

- c. **Dry Wells**, also referred to as seepage pits, are subsurface storage facilities (structural chambers or excavated pits backfilled with a course aggregate or alternative storage media) that temporarily store and infiltrate stormwater runoff from rooftops. Due to their size, dry wells are typically designed to handle stormwater runoff from smaller drainage areas (less than one acre in size).
- d. **Underground Infiltration Systems** generally consist of a rock storage (or alternative) bed below surfaces such as parking lots, lawns, and playfields for temporary storage and infiltration of stormwater runoff with a maximum drainage area of 10 acres.
- e. **Green Roofs** are flat or nearly flat building roofs that are partially or completely covered with vegetation and soil or a growing medium, planted over a waterproof membrane. Green roofs are used for stormwater management and energy savings, as well as for aesthetic benefits. Green roofs absorb stormwater and release some of it back into the atmosphere through evaporation and plant transpiration, while reducing urban temperatures. A green roof typically includes installation of an approximately two to six-inch deep system consisting of a root anti-penetration layer, a drainage layer, a water filtration fabric, a growing medium, and drought-tolerant living plants designed to be low-maintenance.
- f. **Porous Pavement** (also known as pervious paving or permeable pavement), is a term used to describe paving material and methods for driveways, parking lots, sidewalks, and pathways that allow stormwater runoff to infiltrate through the paving material to the soil below. Porous paving materials available include: porous asphalt, porous concrete, porous pavers or bricks, and other proprietary materials produced using a stone aggregate and a binding product.
- g. **Tree Plantings** are beneficial to stormwater management and may be eligible elements of a project; this item is intended to include simple tree plantings from small container trees to larger bulbed and burlaped or even bare root trees. Applicants must identify caliper and species to allow evaluation for reimbursement.
- h. **Tree Trenches** (are designed to hold one or more trees and are built to capture and store additional stormwater to keep runoff out of streets and sewers and provide water for the trees. They can be connected to a building downspout system or placed along streets or between streets and sidewalks. Tree trenches may include amended soils, aggregate for storage and infiltration, perforated pipe for distribution, and geotextile lining to enclose the trench and are more sophisticated than simple tree plantings.
- i. Planter Boxes are deep planting boxes that receive roof runoff, releasing it to a storm drain conveyance system, cistern, or infiltrating into groundwater. Tree planter boxes can be raised or flush with the surrounding landscape. Vegetation in the planter usually is comprised of perennials and/or small shrubs. Planter boxes are generally not recommended for treatment of road or parking lot runoff.
- j. **Cistern Systems** are large receptacles for holding stormwater runoff that are connected to a storm drain collection system on a nearby building or structure. Rainwater can be stored in the cisterns and may be reused to water gardens and lawns. Cisterns may range in capacity from 50 gallons to thousands of gallons.

k. **Added Green Space** refers to the removal of existing impervious/paved areas and replacing it with pervious/unpaved ground cover, allowing stormwater to infiltrate to groundwater rather than surface flowing into storm drains tied to the combined sewer system.

12. Minimum Green Infrastructure Maintenance Requirements:

As part of acceptance of the GIF grant, the Applicant will be responsible for proper maintenance of the Green Infrastructure installed. The Applicant will also agree to protect the effective operation and efficient function of Green Infrastructure so as to preserve and retain all environmental benefits, including stormwater capture components for which the GIF award has been provided.

- a. Rain Garden / Bioretention maintenance practices include:
 - Clear debris (1-2 times per year)
 - Clear catch basin/sump/forebay and properly dispose of waste (annually)
 - General landscaping such as weeding, infill planting, irrigation, etc. (as needed)
 - Replacement of mulch as needed (every 2 to 3 years)
 - The first 2 to 3 years may require enhanced maintenance until the vegetation is established.
- b. Dry Well maintenance practices include:
 - Clear debris (1-2 times per year)
 - Observe actual infiltration rate in comparison to design infiltration rate presented in maintenance plan. (Annually)
 If infiltration rate is significantly diminished below the design rate, appropriate measures shall be taken to maintain proper functioning of system.
- c. Underground Infiltration System maintenance practices include:
 - Surface area above infiltration system should be maintained as designed and avoid compaction of subsurface system (as needed)
 - Stabilize any bare soils (as needed)
 - Inlets/Overflows/other structures should be maintained as necessary (minimum 2 times per year)
- d. **Green roof** maintenance practices include:
 - Fertilize, weed, infill planting (minimum 2 times per year)
 - Maintain plant and weed inventory
 - Irrigation may be required during drought, especially during the establishment period
 - Maintain documented log of maintenance visits
 - The first 2 to 3 years may require enhanced maintenance until the vegetation is established.
- e. **Porous Pavement** maintenance practices include:
 - Vacuum sweep (1-2 times per year)
 - Avoid using any sand/cinder based winter traction materials on or near pavement
 - Clear away visible debris (as needed)
 - Inspect condition of top-surface (annually)
 - Never seal coat or slurry seal pavement
 - Maintain inlets/overflows as necessary

f. Tree Planting / Tree Trench maintenance practices include:

- Pruning, landscaping, and weeding (1-2 times per year)
- Watering (during dry periods)
- Removal of trash and debris
- Maintenance of grate or other ground cover (as needed)

g. Planter Box maintenance practices include:

- Weeding and general landscaping (1-2 times per year)
- Watering (during dry periods)
- Periodic replacement of soils, plants, and mulch (as needed)
- Removal of trash and debris

h. Cistern maintenance practices include:

- Regular inspection of cistern unit and its discharge apparatus (at least 2 times per year)
- Clear away and remove visible debris and sediment (as needed)
- Clean gutters and downspouts connected to unit (1-2 times per year)
- Document the frequency and rate water is removed from the unit

13. Application, Approval, Construction, and Reimbursement Processes:

STEP ONE: APPLICATION PROCESS

A GIF application is considered **COMPLETE** when the applicant submits:

- Completed application form; Please submit one (1) hard copy and one (1) electronic copy (PDF) including all attachments
- Existing site photos depicting the location of proposed GI technologies
- Post-construction site photos (if Applicant is requesting retroactive GIF funding)
- Project Narrative outlining the scope of proposed GI technologies and describing the existing drainage conditions that will be improved
- Conceptual rendering of site and proposed GI infrastructure improvements
- Site property survey and site plan, if available at time of application
- If property is owned by Applicant, provide Legal Description of property
- If property is leased by Applicant, provide description of leased premises, copy of existing lease or lease option contract, and Letter of Consent to construct Project from the Owner
- If Project is bank financed, a letter of interest from the proposed lender
- W-9 Form
- Detailed project budget related to proposed GI technologies (breakdown by engineering design, construction labor and materials, site testing, preparation of maintenance plan, etc.)

Owner Applicants must supply copies of deed, title policy, or purchase option or contract. Tenant Applicants must supply copies of lease or lease proposal and Owner's Consent Letter with minimum 5-year lease-term agreement.

Onondaga County (WEP) will review the application and notify the Applicant if the project will be recommended for funding, and if so, the amount of GIF assistance approved.

STEP TWO: APPROVAL PROCESS

If the project is recommended for award by Onondaga County (WEP), a formal contractual agreement for reimbursement will be prepared between the County and the Applicant.

The Applicant must provide the following prior to approval of the Agreement:

- Proof of equity and lender financing
- Detailed project budget (final cost estimate)
- Copies of all required permits
- Detailed final design sealed by a New York State Licensed Design Professional (architect, landscape architect, professional engineer)
- Copy of maintenance agreement and maintenance plan for the Project
- Any other legal documents as required by WEP

Note: The grantee is obligated to notify WEP of any modifications or changes to the proposed design as outlined in the Application. Any change or modification to the proposed concept or design is subject to technical review by WEP for analysis of effectiveness and award eligibility.

STEP THREE: CONSTRUCTION

Prior to commencing construction:

• Grantee must notify WEP prior to commencement and upon completion of project.

During construction:

- Applicant will complete the Project as outlined in the Contract terms.
- Grantee will maintain construction records and photograph progress. WEP has the right to inspect construction progress and photograph the Project.

After construction:

- Once construction is completed and proof of completion has been provided, WEP will conduct a final walk-through of the Project and issue a Certificate of Completion.
- Monitoring data and As-Builts must be submitted as requested.
- Maintenance records must be kept and submitted as requested.

STEP FOUR: REIMBURSEMENT

The Grantee must provide:

- A signed Certificate of Completion
- A completed Claim Form (provided by WEP) within 60 calendar days of the issuance of the Certificate of Completion
- Documentation of sub-contract certification (if applicable for Project)
- Copies of detailed invoices outlining cost of green infrastructure by contractor
- Approved maintenance agreement

Green Improvement Fund Application Form

Part I: Applicant Information

A. Business/Organization Information:						
1.	1. Name of Business/Organization:					
2.	2. What does your Business/Organization do?					
3.	3. Address of Business/Organization:					
4.	4. Name of Applicant point of contact:					
5.	5. Applicant phone number: Mobile	number:	Email address:			
6.	6. Name of NYS Licensed Design Professional (fin	rm and point of co	ntact):			
7.	7. Design Professional phone: Mobile	number:	Email address:			
0	9 Torres of Dusiness (Oussell at least on antitar (short on	->-				
8.	8. Type of Business/Organization entity (check one	e):				
	For-Profit Corporation					
	Non-Profit Corporation					
	Other (please describe):					
B. P	Property Information:					
1.	1. Proposed Green Infrastructure (GI) site street ad	ldress:				
2.	2. Site Tax ID Number:					
3.	3. Site Property Identification Number:					
	Information can be obtained online at www.map	host.com/syracuse-	onondaga			
4.		Is the Project within the GIF Program boundary? (check one):				
	Refer to GIF Program Boundary Map, which can www.savetherain.us/wp-content/uploads/2011/11/					
5	5. Does the Applicant currently own or lease the pr					
J.	Own	roperty: (eneck or	ic).			
	Lease					
	Other (Please Explain):					
	Note : If Applicant does not own the property, provide a copy of any existing lease or lease option contract, and Letter of Consent to construct Project from the Owner.					

Part II: Project Description

A.	A. Green Infrastructure (GI) Project Scope:					
	1. Complete the following table, indicating GI technologies proposed:					
	Note: Descriptions of acceptable GI technologies and minimum maintenance requirements are provided in the Application instructions.					
Gr	een Infrastructure Type	Unit	Size / Quantity of Proposed GI Technology	Impervious / Paved Area Tributary to GI (Square Feet)	Pervious / Unpaved Area Tributary to GI (Square Feet)	
	Rain Garden	Square Feet				
	Bioretention	Square Feet				
	Dry Well	Gallons				
	Underground Infiltration	Square Feet				
	Green Roof	Square Feet				
	Porous Pavement	Square Feet				
	Tree Planting	Each (Species/Caliper)				
\prod	Tree Trench	Square Feet				
	Planter Box	Square Feet				
	Cistern	Gallons				
	Added Green Space	Square Feet				
	Other (specify):					
В.	Green Infrastructure pr	oject Specifics:		, ,		
1. Provide the anticipated budget for GI portion of this Project: a. Engineering design of GI technologies: b. Construction (labor & materials) for installation of GI technologies: c. Field testing, if required, to confirm suitability of GI technologies (soil infiltration testing, etc.): d. Structural Analysis, if required, to confirm suitability of GI technologies (loading for green roof): e. Total amount of GIF funding requested for this Project: Note: WEP will not reimburse Applicant for costs associated with survey, permitting, periodic						
GI maintenance, construction contingency, or non-GI related construction. Applicant must include a detailed estimate outlining the specific line-item construction costs associated with the implementation of each Green Infrastructure technology utilized in the proposed project.						

2.	Proposed Project schedule (month/year):
	a. Anticipated engineering design completion date:
	b. Anticipated construction start date:
	c. Anticipated construction completion date:
3.	Has any other government financial assistance (grants, other funding vehicles, tax incentives, or other economic benefits) been provided to the applicant for the purposes of this Project? No Yes
	
	If Yes, describe the type and amount of assistance provided (Federal, State, other):
4.	Provide the following attachments to this Application:
	Existing site photos depicting the location of proposed GI technologies
	Post-construction site photos (if Applicant is requesting retroactive GIF funding)
	Project Narrative outlining the scope of proposed GI technologies and describing the existing drainage conditions that will be improved
	Conceptual rendering of site and proposed GI infrastructure improvements (after initial approval of Application by WEP, Applicant to provide design plans stamped by a New York State Licensed Design Professional)
	Site property survey and site plan, if available at time of application
	If property is owned by Applicant, provide Legal Description of property
	If property is leased by Applicant, provide description of leased premises, copy of existing lease or lease option contract, and Letter of Consent to construct Project from the Owner
	W-9 Form
	Detailed project budget related to proposed GI technologies (breakdown by engineering design, construction labor and materials, site testing, preparation of maintenance plan, etc.)

Part III: Maintenance Agreement

main	licant must enter into a long-term general maintenance agreement to receive GIF funding. A stenance plan must be prepared which identifies the extent and frequency of GI maintenance to be bormed at the site. Describe the maintenance plan for this project:
 Part	IV: Signatures
All A	Applicants must sign Part A below. Part B must be signed by the application preparer, if different.
Α.	Applicant Signature:
	I, the undersigned, certify that I am authorized to initiate the GIF funding application process on behalf of the project described, and that the Green Infrastructure project will be constructed, in its entirety, on property owned or leased by the Applicant. I have read and understood the requirements described in this application and program description.
	Applicant Signature:
	Print Name:
	Title:
	Date:
В.	Application Preparer Signature:
	I, the undersigned, affirm that the project descriptions, numerical and financial estimates, and all other information I have provided in this application are true and complete to the best of my knowledge. I have read and understood the requirements described in this application and program description.
	Application Preparer Signature:
	Print Name and Firm:
	Title:
	Date:
C.	Legal Disclaimer:
	Completion of this application does not entitle the Applicant to financial assistance. Any such assistance must be approved by WEP. Additional information may be requested to consider this

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application complete. Applicant must comply with all applicable federal, state, and local laws,

including environmental laws and permitting requirements.

D. Application with required attachments must be submitted to:

Onondaga County Department of Water Environment Protection ATTN: GIF Program 650 Hiawatha Boulevard West Syracuse, NY 13204

Questions may be referred to Paul Legnetto with the WEP GIF Program (315) 435-5402, Ext. 209