SAVE THE RAIN

Suburban Green Infrastructure Program
$1,200,000 in Available Funds

2017 Program Description and Application

Onondaga County
Department of Water Environment Protection
Joanne M. Mahoney, County Executive
Tom Rhoads, P.E., Commissioner

Deadline: June 15, 2017 3:00 PM

1. Background

Onondaga County's Save the Rain Program and the Department of Water Environment Protection (WEP) are sponsoring the Suburban Green Infrastructure Program (SGIP), a grant program to provide financial incentives for the installation of green and innovative infrastructure projects. Projects must be located within the Onondaga County sanitary sewer district. Many parts of the consolidated sanitary district are severely constrained by extraneous flows, using up capacity which could be better used for economic growth. This SGIP grant program supplements the highly successful Save the Rain program investments already underway in the City of Syracuse, with programming focused on projects outside the combined sewer service area to control stormwater runoff and inflow and infiltration into the sanitary sewer system. Previous SGIP funding has been awarded in 2012-2015.

Green infrastructure projects may include, but are not limited to, bioswales, cisterns, green roofs, planter boxes, porous pavement, rain gardens, tree trenches, and underground infiltration systems. Municipal properties in the Meadowbrook service area, as well as municipally-owned properties outside the City of Syracuse but within the Consolidated Sanitary District (CSD) are eligible for funding. While other innovative methods of repairing sewer infrastructure such as sewer lining, manhole repair with epoxy grout, and removal of cross-connected storm sewers are permissible as part of projects proposed, wherever possible the most desirous proposal(s) will **emphasize and maximize green infrastructure applications**. Please refer to Section 10 "Green and Innovative Infrastructure Technology Definitions" for further eligible technologies.

2. Eligibility

An eligible municipality within the Onondaga County CSD or in the Meadowbrook service area of the City of Syracuse proposing to undertake a project to reduce inflow and infiltration to the sanitary sewer system can apply for a SGIP grant. An "owner" is defined as any town, village, or the City of Syracuse, that can provide evidence to Onondaga County of a fee-simple title to the public property to be improved. Because funding for the projects will be sourced from the Consolidated Sanitary District, and not appropriated from the general fund, all eligible projects must be on municipally owned property specifically located within the Onondaga County CSD and provide inflow and infiltration removal benefits to the District. The municipality must also have an executed Intermunicipal Agreement (IMA) for sewer maintenance and planning.

3. Eligible Project Reimbursement Costs for a SGIP Grant

Eligible reimbursement expenses include:

- Design and engineering costs, as furnished by a New York State licensed design professional (architect, landscape architect, or professional engineer) for specific green and innovative infrastructure measures for the property.

- Labor and material construction costs to modify the site and install green and innovative infrastructure for the purpose of inflow and infiltration reduction.

All projects funded through this program shall comply with any and all environmental laws and applicable permits. The owner applicant is responsible for SEQRA, permitting, design, construction, and operation. All work must be done on public property. Onondaga County will review and approve all plans and specifications to verify that the proposed incorporation of green infrastructure will reduce stormwater inflow to the Consolidated Sanitary District above and beyond all regulatory requirements. Review of the construction documents is required prior to construction in order for the project to remain eligible for reimbursement. No funding is

guaranteed prior to full review and approval by the County, including specific project approval by the Onondaga County Legislature.

4. Application Process

The SGIP application process will be administered in rounds of funding with application submissions due by 3:00 P.M. June 15, 2017. A project owner seeking SGIP funds must complete a 2017 SGIP application form and submit all required documents, to:

ATTN: SGIP Application
c/o Madison Quinn
Save the Rain Program
Onondaga County Dept. of Water Environment Protection
650 Hiawatha Blvd West
Syracuse, NY 13204

5. Available Funding

Eligible applicants can receive up to 100 percent of eligible costs associated with the implementation of the green infrastructure components for projects. However, an applicant's ability to provide some matching funds will also be considered in prioritizing projects for funding. The minimum single project assistance from Onondaga County will be determined by the County Legislature – historically projects grants ranged from a minimum of $75,000, to a maximum project assistance of $250,000. Overall funding for the entire 2017 program is limited to $1,200,000.

Applicants should strive to be as cost-effective as possible in the development of the project. The SGIP committee will consider cost-effectiveness as a criterion in determining grant awards; however, this will not be the only consideration. Grant funding will only cover costs for the installation of green and innovative infrastructure solutions above and beyond traditional construction practices, including design and engineering costs and construction costs. Final award determination will be based upon criteria outlined in Section 6 below.

All grants shall be reimbursements, awarded after the green infrastructure has been installed and as-built documentation has been submitted and verified by WEP.

Projects shall have a minimum total stormwater reduction of at least 100,000 gallons captured annually (based on 39.5" of rainfall annually) to be eligible for funding, and said stormwater reduction will reduce inflow and infiltration into the Onondaga County sanitary sewer system. Please fill out page 11 with the type(s) of green infrastructure technology, size/quantity of each, and the drainage areas to be implemented.

6. Selection Criteria for Projects

Project decisions and the level of funding for selected SGIP projects rest solely with the Onondaga County Department of Water Environment Protection. Upon evaluation by the department, each project must be specifically approved by the Onondaga County Legislature. Onondaga County will select projects that meet SGIP program goals based on the following criteria and considerations:

- Successful proposals should preferably emphasize and maximize green infrastructure practices
- Completeness and accuracy of the application; all applications must be complete and submitted for consideration by 3:00 pm June 15, 2017
- Location, extent, and/or size of the project

- Potential volume and effectiveness of reducing runoff and inflow and infiltration, including engineer's estimate of I&I reduction
- Amount of surface area managed by green/innovative infrastructure
- Overall cost effectiveness of the project
- Matching funds or other sources of funding to support the project; the utilization of this grant to leverage a larger project via additional resources
- Location and visibility of the project for educational purposes
- Inclusion of an effective maintenance plan
- Ability to complete the project within 15 months of grant award

Recommendations on awards will likely be made in the Fall of 2017. Green/innovative infrastructure portion of awarded projects must be constructed **by November 30, 2018.**

7. Construction and Monitoring Requirements

Applicants shall comply with all state and local laws. Grantees must allow WEP and its representatives access to the site to monitor volume capture pursuant to the life of the contract between the County and SGIP project owner. 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 website. The owner shall provide qualified inspection and professional certification for the installation of all green infrastructure components.

8. Other Requirements for Receiving SGIP Funding

A. Cost

Each applicant must complete and sign a detailed statement which outlines specific costs of green infrastructure or innovative infrastructure rehabilitation improvements. Projects that include additional infrastructure construction work beyond green/innovative infrastructure improvements should demonstrate how the green/innovative infrastructure portion of the project relates to the overall scope of work.

B. Inflow and Infiltration (I & I) Relationship to Sanitary Sewer

In addition, the applicant shall provide a detailed contour/topographic drainage plan depicting the existing surface area tributary to the sewer system as it relates to the applicant's parcel and the inflow/infiltration identified. The applicant shall also provide a proposed drainage plan (via conceptual diagram or map) indicating how much of the existing inflow and infiltration—once tributary to the sanitary sewer—will be removed and diverted to the proposed green infrastructure.

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

The volumetric capacity of each proposed green infrastructure or extraneous flow removal system must be provided.

9. Project Completion and Reimbursement Procedures

Upon completion, the owner must contact WEP to schedule a final walk-through to ensure the project has been installed in accordance with all requirements of the SGIP and owner's approved application. If WEP determines that the project has been completed successfully, WEP will issue a Certificate of Completion, and the grantee shall have sixty (60) calendar days to submit a

completed reimbursement application requesting payment. Funding awarded under the SGIP will be disbursed in a one-time, lump sum payment to the grantee. All applicants must demonstrate that they have a long-term general maintenance agreement/plan with the County for all projects.

To schedule final procedures and a walk-through, grantees can contact:

ATTN: Adam Woodburn
Onondaga County Dept. of Water Environment Protection
7120 Henry Clay Blvd.
Liverpool, New York 13088
315-435-5402 Ext. 219

10. Green and Innovative Infrastructure Technology Definitions

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). **Infiltration manholes** are a similar eligible technology.

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. **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.

f. **Tree Plantings** are beneficial to stormwater management and may be eligible elements of a project; this item is intended to include simple tree plantings – including container balled and burlapped or bare root tree plantings. Applicants must identify caliper and species to allow evaluation for reimbursement.

g. **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.

h. **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.

i. **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 fifty gallons to thousands of gallons.

j. **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.

Innovative Infrastructure Technology Definitions:

a. **Pipe replacement by pipe bursting** - minimal disruption by excavation - a larger diameter pipe is pulled through the old pipe by cutting and bursting the old. The new pipe will have equal or greater conveyance capacity.

b. **Cured in place pipe (CIPP)** - little or no excavation required - restores pipe to near new capacity - system has a 50-100 year service life.

c. **Spot joint repair -** small spot repairs will be conducted to stop water from infiltrating into bad pipe joints. This can be accomplished with grout injection or pipe lining.

d. **Slip lining** - a new pipe (typically plastic) is pulled through an existing pipe. The new pipe may have less capacity than the existing.

e. **Manhole rehabilitation** - grout injection would be performed to stop infiltration into manhole structures. This process does not require excavation.

11. Minimum Green Infrastructure Maintenance Requirements

As part of acceptance of the SGIP grant, the grantee/owner will be responsible for proper maintenance of the green infrastructure installed. The grantee/owner 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 SGIP award has been provided.

a. **Rain garden/bioretention** maintenance practices:

- Clear debris (1-2 times per year)
- Clear catch basin/sump/fore-bay and properly dispose of waste (annually)
- General landscaping such as weeding, infill planting, irrigation, etc. (as needed)
- Replacement of mulch as needed (every 2-3 years)
- The first 2–3 years may require enhanced maintenance until the vegetation is established.

b. **Dry well** maintenance practices:
   - Clear debris (1-2 times per year)
   - Observe infiltration rate in comparison to normal infiltration rate presented in maintenance plan (annually). If infiltration rate exceeds normal rate, appropriate measures shall be taken to maintain proper functioning of structure.

c. **Underground infiltration system** maintenance practices:
   - Mow and remove debris (as needed)
   - Stabilize eroded banks (as needed)
   - Dethatch and remove sediment from bottom of structure (annually).

d. **Porous pavement** maintenance practices:
   - Vacuum sweep (2-4 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.

e. **Tree planting/tree trench** maintenance practices:
   - Prune, landscape, and weed (1-2 times per year)
   - Water (during dry periods)
   - Remove trash and debris
   - Maintain grate or other ground cover (as needed).

f. **Planter box** maintenance practices:
   - Weed and landscape (general) (1-2 times per year)
   - Water (during dry periods)
   - Replace soils, plants, and mulch (as needed)
   - Remove of trash and debris.

g. **Cistern** maintenance practices:
   - Regularly inspect 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 the unit (1-2 times per year)
   - Document the frequency and rate water is removed from the unit.

12. Application, Approval, Construction, and Reimbursement Process

Step One: Application Process

A SGIP application is considered **complete** when the applicant submits:

___ Signed application form
___ Existing site photos depicting the location of proposed GI technologies
___ Basis of engineering design and project narrative, including engineering estimate of I&I reduction
___ Survey or site plan, to include a detailed drainage plan
___ Green infrastructure enhancement plan and specifications
___ Legal description of property involved
___ Permits required and/or applied for
___Detailed project budget related to proposed GI technologies (breakdown by engineering design, construction labor and materials, site testing, preparation of maintenance plan, etc.)

Note: Project applicant must supply copies of deed, title policy, purchase option or contract, or some other proof of documented municipal ownership of the property.

Onondaga County WEP will review the application and after further determination by the Office of the County Executive, and following action by the County Legislature, the County Executive will enter into a grant reimbursement agreement for any project to be funded and the amount of SGIP assistance approved. **Please include one digital copy, plus three hard copies of each application.** Details included in the application for approved projects may be posted on the Save the Rain website (www.savetherain.us) at the discretion of Onondaga County WEP.

Step Two: Approval Process

If the project is recommended by Onondaga County WEP, and then approved by Resolution of the Onondaga County Legislature, a contract agreement will be prepared between the County and the applicant. The applicant must provide the following prior to approval of the agreement:

___ Proof of financial capacity and official approval of the town or village to enter into an agreement with the County

___ Detailed project budget and final estimate related to proposed GI technologies (breakdown by engineering design, construction labor and materials, site testing, preparation of maintenance plan, etc.)

___ 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/plan for project

___ Other legal documents as required by Onondaga County WEP, including proof of county acceptance of design.

- Executed Intermuncipal Agreement with the County for sewer maintenance.

Step Three: Construction

Prior to commencing construction:

___ Grantee must notify representative for Onondaga County WEP (Adam Woodburn) prior to commencement and upon completion of project.

During Construction:

___ Grantee will maintain construction records and photograph progress. Onondaga County WEP has the right to inspect construction progress and photograph the project. Copies of all records and photos to be submitted to Onondaga County WEP (Adam Woodburn)

After Construction:

___ Once construction is completed and proof of certified completion has been provided, WEP will conduct a final walk-through of the project and issue a Certificate of Completion.

___ As-builts shall be submitted and monitoring data, if applicable.

___ Maintenance records must be kept and submitted as requested.

Step Four: Reimbursement

The grantee must provide:

___ A signed copy of the Certificate of Completion

___ A completed reimbursement application form to WEP (provided by WEP) within 60 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

___ Copy of an approved maintenance agreement.

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.

13. Maintenance Agreement

Applicant must enter into a long-term general maintenance agreement to receive SGIP funding. A maintenance plan must be prepared which identifies the extent and frequency of green infrastructure maintenance to be performed at the site. Describe the maintenance plan for this project:

14. Signatures

All applicants must sign Part A below. Part B must be signed by the application preparer, if different.

A. Applicant Signature:
I, the undersigned, certify that I am authorized to initiate the Save the Rain SGIP funding application process on behalf of the project described and that the green infrastructure project will be constructed, in its entirety, on property owned by the municipality of _____. I have read and understand the requirements described in this application and program description.

Applicant Signature: _____

Print Name: _____

Title: _____ Date: _____

B. 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 understand the requirements described in this application and program description.

Applicant Signature: _____

Print Name: _____Firm: _____

Title: _____ Date: _____

Phone: _____ Email: _____

C. Legal Disclaimer:
Completion of this application does not entitle the applicant to financial assistance. Any such assistance must be approved by WEP, specifically authorized by resolution of the Onondaga County Legislature, and then contractually committed by an agreement executed by the County Executive. Additional information may be requested to consider this 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:

Madison Quinn
Save the Rain Program
Onondaga County WEP
650 Hiawatha Blvd West
Syracuse, NY 13204

Questions may be referred to Madison Quinn, Onondaga County WEP SGIP at (315) 435-2260, ext. 325, or MadisonQuinn@ongov.net.

Green & Innovative Infrastructure Project Scope:

1. Complete the following table, indicating technologies proposed:
   Note: Descriptions of technologies are provided above in Section 10.

Green 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	Each			
☐ Underground Infiltration	Square Feet			
☐ Green Roof	Square Feet			
☐ Porous Pavement	Square Feet			
☐ Tree Trench/Planter Box	Each			
☐ Cistern	Gallons			
☐ Added Green Space	Square Feet			
☐ Other (please specify): _____				

2. Provide the *existing* drainage areas within the property that are tributary to the Combined Sewer System:
   a. Impervious (Paved) Area: _____ square feet
   b. Pervious (Unpaved) Area: _____ square feet

3. Provide the *proposed* drainage areas within the property that are tributary to the Combined Sewer System:
   a. Impervious (Paved) Area: _____ square feet
   b. Pervious (Unpaved) Area: _____ square feet

4. Does the proposed project remove *at least* 100,000 gallons of extraneous flow per year?
   ☐ No ☐ Yes

5. Is the use of GI technologies in this project part of a larger construction project?
   ☐ No ☐ Yes
   If Yes, describe the overall project scope:
   _____
   _____
   _____

6. Describe the scope of the project specific to the proposed Green and Innovative technologies:
   _____
   _____
   _____