

FUNDING RESILIENCE IN WISCONSIN SMALL & MID-SIZED CITIES

A guide to incentive approaches for advancing green
infrastructure projects on private property



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Introduction

Throughout 2021, the authors of this paper partnered with staff from the Cities of Sheboygan and Green Bay, Wisconsin with the goal of advancing our collective understanding of the incentives and financing options that could be appropriate to support green stormwater infrastructure (GSI) programs in mid-sized cities. The team of water policy and economic professionals at American Rivers, WaterNow Alliance, and Corona Environmental Consulting¹ reviewed regulatory and non-regulatory policies and explored existing programs in each municipality. The team then provided an analysis of financial resources and strategies that would support a suite of recommended incentive programs and financing options. This report grows out of that experience and is intended to provide an overview of GSI funding, financing, and incentive programs that are relevant to small and mid-sized municipalities in Wisconsin.

I. Incentivizing Green Stormwater Infrastructure on Private Property. Why??

Privately owned lands typically constitute a relatively large portion of impervious areas in urban and semi-urban settings. As stormwater programs continue to evolve, more municipalities are looking to increase the adoption of green stormwater infrastructure (GSI) on private lands. Green stormwater infrastructure (GSI) practices, such as green roofs, bioswales, cisterns, and permeable pavers mimic natural processes to infiltrate stormwater runoff and provide many important co-benefits to communities, including beautifying neighborhoods, reducing localized flooding, providing shade, promoting groundwater recharge, and/or reducing costs associated with traditional “gray” infrastructure stormwater management solutions, among others. Over the last decade, most municipalities have focused GSI investments on projects within the public right-of-way (ROW) and on other publicly owned properties.

Incentive programs can entice property owners to implement GSI solutions and contribute to addressing stormwater challenges in the watershed. To fully achieve these benefits, stormwater agencies will need to incentivize property owners to act because aside from a handful of self-motivated property owners most private property owners are unlikely to install GSI of their own volition. Tailored to meet specific community needs, incentive programs can target priority areas, engage private property owners in GSI implementation that can provide important educational benefits for local stormwater programs, and foster community-wide watershed advocacy.

Benefits of Incentives for Private Property GSI

Several municipalities have found it can be more cost-effective to support the implementation of GSI projects on private property instead of, or to complement, projects within the public ROW. Projects on private property can also reduce the need (and associated costs) for public stormwater infrastructure. It is important to understand the benefits and costs of private property retrofits to be able to fully integrate them into stormwater planning. Municipal staff can use these experiences to demonstrate the cost savings that can come from investing local budgets in GSI grants, rebates, or other private property incentive programs.

1. Project staff from Corona Environmental Consulting have since relocated to OneWater Economics

Findings from existing programs in Portland (OR), Montgomery County (MD), and Louisville (KY), Northeast Ohio confirm significant savings.² The staff at the Portland Bureau of Environmental Services (BES) examined the life cycle cost associated with private property implementation of GSI projects.

Table I: BES 100-year present value costs of stormwater facility storage volume

Facility type	Construction cost (\$/ft ³)	Maintenance cost (\$/ft ³)	Lifecycle total cost (\$/ft ³)
Public ROW planter	\$365	\$102	\$467
Public ROW curb extension	\$217	\$102	\$318
Private property planter/basin	\$153	\$9	\$162
Private property rain garden	\$79	\$3	\$79

In addition to cost-effectiveness and benefits for the municipality, projects on private property can result in significant community benefits, as well as benefits for the property owners.³ Understanding and demonstrating benefits for private property owners, developers, and other partners can increase incentive program participation and potentially leverage additional funding sources. Communities that enacted a stormwater utility may have sufficient revenue to fund incentive programs in the form of rebates or grants that help offset the cost of GSI implementation for private property owners. Examples of rebate and grant programs around the country demonstrate the efficiency of the private sector in implementing cost-effective GSI solutions. In but one instance, the Long Tom Watershed Council in Eugene, Oregon is implementing residential GSI projects that are 33% less expensive than the cost incurred by the City of Eugene.⁴

II. Structuring Effective Incentive Programs

The design of any incentive program should entice property owners or developers to implement GSI solutions that provide multiple benefits to the surrounding community. Incentive programs can be tailored to address community goals or to specifically target properties located in high-priority areas. Incentive programs can provide [direct financial support](#) (i.e., a rebate or grant programs) or provide [indirect benefits](#) (i.e., land use flexibility, awards, recognitions) to property owners or developers who implement GSI. Some incentives are more effective when targeted to residential property owners; others are more appropriate for commercial, industrial, or institutional properties. Building on the success of stormwater incentive programs across the country, the project team identified components for structuring an effective strategy.

1. Start Small, Learn, and Grow

Pilot programs can provide the municipality and the participating community an opportunity to learn a great deal about effective management, targeting, and structure of an incentive program. Funded at a manageable level and open to a limited number of participants, pilots provide opportunities to prioritize areas, build support through community outreach, leverage local partnerships for support in design, implementation, and maintenance, and seek additional funding sources. After evaluating the City of Green Bay's needs and financial capabilities, the project team suggested that the city consider a grant program funded at \$100,000 / year.

2. RainScapes Reward Rebates, Department of Environmental Protection, Montgomery County, MD; Percent for Green Grants, City of Portland OR; Green Infrastructure Program, Louisville/Jefferson County Metropolitan Sewer District; Green Infrastructure Grant Program, Northeast Ohio Regional Sewer District

3. Clements, J., J. Henderson, R. Raucher, R. Sands, and S. Sommer. 2018. Incentives for Green Infrastructure Implementation on Private Property: Lessons Learned. The Water Research Foundation Project No. 4684.

4. Sarah Whitney, Long Tom Watershed Council, personal correspondence with the authors, 2021.

A pilot project at this level could lead to the installation of 33 GSI projects sufficient to manage 4 or more impervious acres per year. After a pilot period, the incentive program could be revisited, and adjusted to reflect lessons learned, evolving needs/priorities, and budgets. Many municipalities have also found success targeting smaller properties (e.g., residential/small commercial) and focusing on smaller, easy-to-implement (and less costly) projects, such as downspout disconnections, rain barrels, rain gardens, planter boxes, and/or trees to mitigate implementation hurdles.

- ◆ **Include a (relatively) small set of GSI practices**
- ◆ **Focus on residential and smaller commercial properties**
- ◆ **Target high priority neighborhoods**

Starting with a pilot program can allow time for experimentation, improve delivery and flexibility to connect with community organizations, and adapt program structure over time. Starting small also provides the opportunity for concerted engagement to engage with the developer community to address concerns related to effectiveness, feasibility, maintenance, and benefits associated with GSI practices during the planning process. Additional program components could include developing standardized design templates, working with local contractors, conducting site assessments, working with community organizations. [Table 2](#) outlines a variety of incentives options.

2. Grants and Rebates

The most common [direct financial incentives](#) are grants or rebates; both reduce the cost for residents, businesses, and/or nonprofit organizations who implement GSI practices. Grants typically cover the full cost of the project with payments made after the project is completed and passes inspection, or upon completion of key project milestones. Grants can be awarded to individual property owners and developers or be directed to fund nonprofit organizations that implement relatively large projects to meet specified water quality, volume reduction, or community goals. NGOs or similar community organizations may be able to aggregate multiple GSI projects under one grant proposal, thereby broadening the reach and effectiveness of a single grant award. Because most public agency grant programs work on a reimbursement basis, iterative disbursements of a grant award at stages in the implementation process can also reduce the up-front costs that participants must carry and increase equitable participation in the program.

While similar to grants, rebates provide financial assistance to help cover a portion of the project cost and typically are limited to a set amount of money for residents, businesses, and/or nonprofit organizations to implement GSI practices. Municipalities can provide payments to property owners based on a set dollar amount per project, percentage of the project cost (up to a set amount) or area or amount of GSI installed (e.g., \$/square foot of permeable pavement, gallons of stormwater reduced). Property owners willing to invest in GSI are reimbursed a portion of project costs. In fact, many municipalities have found it is important for property owners to pay for some of the installation, so they have some “skin in the game.” Establishing an easy and transparent payment structure is an important element in making it attractive for property owners and developers to participate in the program.

Table 2: Incentive Approaches for Wisconsin Communities

Pathway to Approach	Incentive for GSI	Economic Driver for GSI implementation on Private Property	
Leverage Existing Programs	Tax-Incremental Financing Districts (TIFs)	Revenues applied for GSI in District OR GSI included as criteria for project eligibility	
	Business Improvement Districts (BIDs)	Collectively implement GSI to increase tourism/advocacy	
	Revolving Loan Program	Gap-financing to implement GSI	
	Economic Development Loans	GSI included as criteria for project eligibility	
	Opportunity Zones	Tax incentives for long-term investments in low-income communities	
	Community Development Block Grant Program	Affordable housing initiatives can include GSI	
	Brownfield Redevelopment Authority	Financial assistance provided for improving contaminated sites can require GSI	
	Façade Improvement Grants	Expand to include GSI; green roofs, live walls/ green walls, planter boxes, rain barrels/cisterns	
Develop Incentive Programs	Incentive for GSI	Economic Driver for GSI	Community Examples
	Rebate Program	Portion of cost covered for GSI retrofits	Madison, WI, Green Infrastructure Pilot Program
	Grant Program	100% cost of GSI project provided to residential or commercial properties	Onondaga County, NY Green Improvement Fund (GIF)
	GSI Design Grant Program	Free technical assistance for GSI project planning/design	Milwaukee, WI, The Green Infrastructure Grant
Non-Financial Incentives	<ul style="list-style-type: none"> Density bonuses Reduced permit fees Expedited plan review process Awards & recognition 		Chicago's Neighborhood Opportunity Bonus program Seattle Green Factor Program Lake Champlain, VT, BLUE

A key consideration is striking the balance of providing a sufficient level of incentive to encourage property owners to participate in the rebate program while maintaining cost-effectiveness relative to public projects. Starting with a flat rate for selected GSI practices (rain barrels, street trees) would ease administrative burdens but more robust programs based on \$/square feet of runoff controlled (up to a certain percentage of total project costs) could help inform decision making around cost-effectiveness across a wider range of GSI practices. [Table 3](#) provides examples of the payment structure for several GSI rebate programs throughout the country.

Table 3: GSI Rebate Program Payment Options

Entity/Program	Payment Structure
RainScapes Rewards Rebates (Montgomery County DEP, MD)	Provides up to set amount per parcel (\$7,500 for residential; \$20,000 for multi-family/ commercial). Property owners pay small percentage of project cost (and amount beyond ceiling rebate amount).
Rainwater Rewards (Raleigh, NC)	Reimbursement of 75% or 90% of actual project cost (up to a pre-approved maximum) for design and construction. Reimbursement percentage depends on location in watershed.
RiverSmart Homes (Washington, DC DOEE)	<p>Homeowners make a co-payment for each of the following RiverSmart Homes features installed on their properties (DOEE subsidizes the rest of the cost). Co-payments are:</p> <ul style="list-style-type: none"> • Rain barrels = \$50 or \$70 per rain barrel, depending on rain barrel type • Shade trees = \$50 per shade tree (no limit) • Rain gardens = \$75 per 50 sq. ft. of rain garden • BayScaping = \$100 per 120 sq. ft. of BayScaping <p>DOEE provides \$10/sq. ft. rebate for removing and replacing impervious surface with permeable pavement and/or a \$5/sq. ft. rebate for removing and replacing impervious surface with vegetation.</p>
RainWise Rebates (Seattle Public Utilities, WA)	up to \$4/ft ² of rooftop runoff controlled for rain gardens; tiered percentage for cisterns based on modeled efficiency

3. Indirect Incentives

Many municipalities opt for non-financial incentives to encourage GSI at new development and redevelopment sites. These can complement financial incentives or be stand-alone options. One avenue for non-financial incentives can be through the city's existing land use permitting process.

Often, the development permit review process provides an opportunity for discussions between staff and project developers. These discussions can provide an opportunity for the City to explore or provide incentives such as:

- Density bonuses to reward developers for reducing impervious areas
- Reduced permit fees
- Expedited plan review process to reduce project timeline and other constraints
- Awards and recognition to property owners that implement GSI.

Expedited plan review and reduced permit fees can be meaningful reductions in project costs, and density bonuses (or other related zoning/code relief) can make projects more profitable or affordable. Awards and other programs with recognition values increase the social capital of developers and help to build reputations for leadership and environmental stewardship, which in turn can increase their competitiveness.

4. Equitable Participation

The expected impacts of a changing climate are likely to increase the frequency and severity of rain and snowstorms. The impacts of these events may fall more dramatically on economically disadvantaged residents. As a result, it can be important to understand environmental justice implications of stormwater management and investments in GSI solutions. In designing a program, particular attention should be paid to ease participation by smaller and economically disadvantaged property owners. Municipal program managers and their partners should consider approaches that minimize the degree of design/engineering expertise, administrative burdens, and in some cases, extensive site evaluation (e.g., geotechnical assessment) needed prior to a grant award.

Additionally, assessing the impacts of existing stormwater challenges can help local programs prioritize improvements in the areas that need the most investment and increase the capacity and resiliency of overall stormwater infrastructure. Maps can illustrate existing land use and flood risk to help identify neighborhoods where incentives programs could drive GSI implementation as part of potential redevelopment projects. Identifying and mapping priority areas using the Social Vulnerability Index (SVI) and Flood Risk (FEMA/USGS) are useful in advocating for investment and coordinating across departments, agencies, and community partners. The [EPA's Environmental Justice](#) resource page provides grants and tools to assist in coordinating strategic planning and community outreach to reduce environmental justice challenges.





5. Choosing the Right Approach

Each community has unique challenges, distinctive stormwater priority projects, and motivational drivers that are key in implementing a successful program. In the development of new or existing incentive GSI strategies, Water Research Foundation examined “cross-cutting themes” for a successful program that will resonate with the intended audience to motivate participation.⁵

- Identify program goals and articulate clear objectives
- Incorporate existing policies or program
- Consider target audience (property types and owners) to reduce barriers
- Collaborate across agencies and with the private sector and non-profits
- Demonstrate and communicate the cost-effectiveness of GSI on private property

The case studies summarize the pathway of two Wisconsin communities and different recommended approaches to developing a GSI incentive program.

CASE STUDY: CITY A

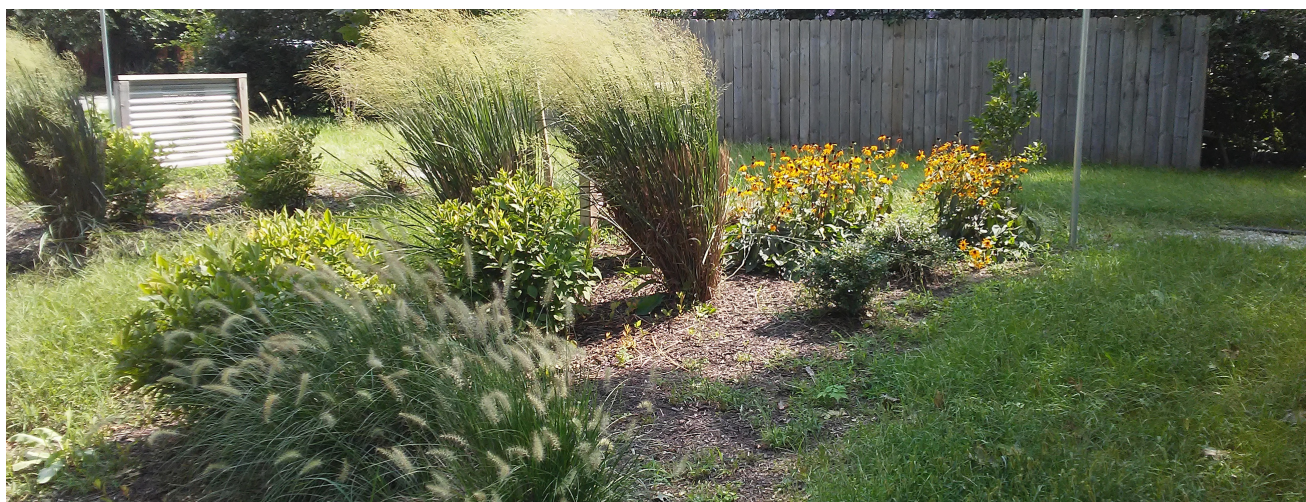
Without a dedicated stormwater utility, City A lacks the funding needed to maintain existing stormwater infrastructure and implement and maintain sustainable solutions (such as GSI) that will help to safeguard the city against more extreme rainfall events. Regulatory requirements in the municipal separate storm sewer system (MS4) permit requires the city to mandate that certain new development and redevelopment projects incorporate a suite of DNR-approved stormwater management practices. The permit requirements present an opportunity to align stormwater goals with existing economic development programs and/or policy objectives. For example, GSI projects financed through the Tax-Incremental Financing (TIF) Districts will increase the property’s initial assessment value, generating revenue to the municipal tax base. A grant or rebate incentive program could leverage TIF-derived revenue directly to construct GSI projects associated with planned developments within the TIF District or require TIF-supported projects to implement GSI or meet resiliency metrics. A parallel technical assistance grant can assist property owners with design challenges, expedited permit process for GSI projects or project recognition are non-financial incentives but increase social capital for the private sector as environmental stewards.

5. Clements, et. al, [Incentives for Green Infrastructure Implementation On Private Property: Lessons Learned](#), Water Research Federation [2018]

CASE STUDY: CITY B

City B collects revenue from stormwater fees and payments received from the City's in-lieu fee for post-construction stormwater requirements, but limited funding has not kept pace with current and future stormwater management needs. Collaborative coordination in planning or policies between departments and agencies can align the GSI potential within the community resilience goals and where allowed, funding sources may be leveraged to provide resources for incentives. A post-industrial city aims to encourage property owners to implement GSI solutions in retrofit opportunities. As a compliment to municipal investments in public GSI projects, recommendations included funding a GSI rebate or cost-share program that focuses on smaller, easy-to-implement (and less costly) projects. Rebates would provide a set or limited amount of money to residents, businesses, and/or nonprofit organizations to implement specific GSI practices. The program should strike the balance of providing a sufficient level of incentive to encourage property owners to participate while maintaining cost-effectiveness relative to public projects. Programs can be tailored to target high-priority neighborhoods and reimbursement structures that reduce financial barriers to increase participation in economically disadvantaged areas.

For broad-scale GSI implementation, a grant program could foster collaboration with community partners and non-profits that are well-suited for aggregating multiple projects across the watershed. With additional funding sources, a grant program can distribute awards to optimize public benefits and broaden the effectiveness of a single award. Coordinating with local contractors to provide training or design templates can ensure successful project delivery and help market the program to encourage participation. A debt-financing option can be pursued to finance the GSI incentive program to alleviate impacts on the capital budget.



III. Paying for Incentive Programs

A successful GSI incentive program will require a dedicated funding source. Municipalities can support a GSI incentive program through traditional city approaches or dedicated stormwater revenues. To fully leverage these revenue streams, the [Compendium of Debt-Financing Options for Scaled Investments in Distributed Green Stormwater Infrastructure](#) describes financing approaches to pay for GSI incentive programs at scale. As detailed in the Compendium, Wisconsin, public finance rules are likely flexible enough to allow municipalities to use public capital, like municipal bond proceeds to pay for GSI rebate programs.

Other strategies include using tax increment financing (TIF) revenues and eligibility requirements to spur GSI integration into TIF-supported private development. Finally, municipalities may be able to leverage other, non-stormwater funding sources, including existing economic development funding and financing programs where opportunities for the integration of GSI exist.

1. Leverage Existing Funding sources to Advance GSI on private property

Our conversations with municipal partners emphasized the need to advance GSI implementation on private properties as a complement to the public projects. Given funding constraints, municipalities should review existing development grant and loan programs that could provide the opportunity to integrate GSI solutions. [Community Development Block Grant Program \(CDBG\)](#) funded by the Department of Housing and Urban Development provides support for local community projects that provide a benefit to low-income populations or prevent deterioration in vulnerable neighborhoods. Through collaborative community planning, GSI practices can lead to solutions that address environmental justice challenges. [Opportunity Zones](#) created in the Tax Cuts and Jobs Act of 2017 supports long-term investment in low-income communities by providing tax incentives to promote re-investment. Opportunity Zones can spur revitalization creating housing, amenities, and job growth in neighborhoods. Encouraging GSI with community planning as a part of development strategies can drive benefits directly to existing residents.

At the local level, cities seeking to attract new investment and retain existing industries may provide economic development loan and grant programs often attract business opportunities and promote job growth. Eligible projects are scored based on criteria that align with the program goals.

Defining GSI solutions as a criterion for project eligibility can leverage financing to address stormwater management challenges. [Brownfield redevelopment programs](#), [energy efficiency](#), and [façade grants](#) are additional opportunities to include GSI approaches in retrofits to improve deteriorated properties and provide additional public benefits. [Business Improvement Districts \(BIDs\)](#) enable collaboration to collectively address specific needs for community members and businesses in the district. BID activities can be targeted to include resiliency projects that improve water quality, reduce erosion and flood risk.

The aesthetic amenities provided by GSI solutions result in positive returns on investment for the community and improved property values. Therefore, GSI projects financed through [Tax-Incremental Financing \(TIF\) Districts](#) can increase the property's initial assessment value, generating revenue to the municipal tax base. For example, four TIFs invested \$1.8 Million in GSI for a redevelopment project in Milwaukee that included brownfield cleanup, green roofs, and a 3-acre stormwater park. The University of Wisconsin-Milwaukee reported the project added an assessed \$1.56 million to the city tax base. TIF-funded projects can provide public benefits by requiring or incentivizing the inclusion of GSI and other community-benefit amenities as part of a TIF subsidy package. Municipalities can also apply TIF revenues directly toward implementing resiliency measures using GSI solutions to provide public benefits such as parks, and trees. Funding stormwater infrastructure with TIFs can provide critical water infrastructure to reduce flooding and improve water quality and support development by reducing infrastructure costs for property owners. Typically, projects funded by TIF include public benefits that provide flexibility for municipal staff to require or incentivize the inclusion of GSI and other community-benefit amenities as part of a TIF subsidy package.

2. Developing Funding Strategies

In 2021, federal legislation approved historic spending to address water-related challenges and specifically invest in green stormwater infrastructure solutions. The once-in-a-generation opportunity offers local municipalities the ability to re-examine capital investments and explore collaborative strategies that will implement comprehensive stormwater programs and boost environmental adaptability. The emerging funding strategies are identified below:

Coronavirus State and Local Fiscal Recovery Funds (SLFRF):

ARPA provided \$350 billion to state, local and tribal governments through the State and Local Fiscal Recovery Funds (SLFRF) to support recovery from the COVID-19 pandemic. This included funding for necessary investment to support vital water and stormwater infrastructure. Effective April 1, 2022, the Final Rule, released by the U.S. Treasury, provided greater flexibility for using the SLFRF, including for projects eligible for funding under the Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF). GSI and other related stormwater infrastructure projects must follow Uniform Guidance for compliance and be deemed "necessary," meaning they are responsive to an identified need to achieve the minimum level of service and a cost-effective solution.⁶

The Final Rule aims to streamlining the funding process by removing the requirement to obtain pre-approval from the U.S. Treasury to use SRF funds for eligible water and wastewater projects.⁷

6. [Coronavirus State and Local Fiscal Recovery Funds: Overview of the Final Rule](#) (2022)

7. [ARPA Final Rule Flexibility for Water, Wastewater, and Stormwater Projects](#), UNC Chapel Hill Environmental Finance Center (2022)

Additionally, ARPA funding can also be applied for park or river cleanups and GSI maintenance that improves outdoor spaces in Qualified Census Tracts (QCT's), as well as public parks that suffered deterioration from increased use during the pandemic.⁸ Collaborative planning can lead to creative opportunities like Jefferson County's (MT) approach to allocate a portion of funding toward matching grants for brownfield remediation projects that seek to expand affordable housing and tourism opportunities.⁹

Debt-Financing and Other Funding Options:

Like other infrastructure investments, GSI solutions are intended to provide long-term stormwater management and related benefits. As such, it is appropriate to consider financing the cost of publicly funded GSI projects and incentive programs as long-term capital projects. For example, a new grant program could be supported by borrowing funds sufficient to administer a grant program by issuing either revenue-backed or general obligation municipal bonds. There are viable approaches to [debt-finance](#) a grant or rebate program to alleviate the impact of providing incentives on the stormwater program's annual operational budget.

Infrastructure Investment & Jobs Act (IIJA):

The single largest investment for water infrastructure in history, the IIJA will provide significant funding for drinking water, wastewater, and stormwater infrastructure. The IIJA authorized the EPA to provide funding to address emerging containment, combined sewer overflow, replace lead pipes, and provide subsidies for projects eligible under the Clean Water State Revolving Loan Fund (CWSRF). The funding provides local municipalities the ability to replace outdated infrastructure, modernize flood management, restore watersheds, and invest in climate-resilient strategies.

The Great Lakes Restoration Initiative will receive \$1.0 billion over the next five years to fund nature-based solutions for treating and controlling stormwater runoff and addressing shoreline erosion. Federal agencies are in the process of finalizing guidance on how to apply funding allocations appropriated in the IIJA.

Funding for advancing GSI implementation are also included in allocations to the Healthy Streets Program, which can fund porous pavement on street improvements, support for GSI implementation in Department of Transportation (DOT) projects, and neighborhood park improvements. The IIJA provides opportunities to plan and implement projects that restore coastlines and habitats (NOAA), watershed restoration programs (NRCS), mitigate flood risk, and foster climate-adaptive communities (FEMA/BRIC).¹⁰

IIJA Allocations for the Stormwater sector include:

Stormwater infrastructure grants

Sewer Overflow & Stormwater Reuse
Municipal Grant Program

Clean Water Infrastructure Resiliency
and Sustainability Grant Program

SMART Water and Energy Efficiency
Grants

Water Infrastructure and Workforce
Investment Grant Program

Water Infrastructure Finance and
Innovation Act Loans(WIFIA)

Centers of Excellence for Stormwater
Control Infrastructure Technologies
(CESCITs)

Small and Disadvantaged Communities
Grant Program

Brownfield Remediation Program
Expansion

8. [American Rescue Plan Act Coronavirus State and Local Fiscal Recovery Fund FAQs](#), National Association of Counties (2022)

9. [American Rescue Plan Act Meeting June 2nd: What You Need to Know](#), Whitehall Ledger, Jefferson County Montana (2021)

10. [Building A Better America, A Guidebook to the Bipartisan Infrastructure for State, Local, Tribal and Territorial Governments, and Partners](#)

Several programs in the Bill aim to support water utilities in implementing sustainable infrastructure and climate-resilient strategies. Additionally, the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act (2021) aims to protect against natural disasters by providing grants to states and tribal entities to establish revolving loans funds to assist local governments with hazard mitigation projects for communities and small business developments.¹¹

Clean Water State Revolving Loan Fund (CWSRF):

The majority of funding appropriated in the IIJA for water infrastructure will be available through the state revolving loan (SRF) programs (\$23.4 billion). Of the \$11.7 billion appropriated to the CWSRFs by the IIJA, **49 percent** must be provided as grants and forgivable loans to communities that meet their state's affordability criteria or certain project types, consistent with the Clean Water Act.¹² The Green Project Reserve requires all Clean Water SRF programs to use at least 10 percent of capitalization funds for green infrastructure, water, and energy efficiency projects, or other environmentally innovative activities. More information about the IIJA implementation can be found in [EPA's Bipartisan Infrastructure Law SRF Implementation Memorandum \(March 2022\)](#). In Wisconsin, the SRF funding supports the Clean Water Fund Program (CWFP) to provide financial assistance to municipalities for wastewater and stormwater infrastructure projects. CWFP funding can be applied to planning, design, and construction of eligible projects including area-side specific wide stormwater projects that are required by a WPDES stormwater permit or other approved plans for managing stormwater runoff. Wisconsin's Department of Natural Resources (DNR) and Department of Administration (DOA) administered the SRF to eligible qualifying municipalities.

WaterNow examined legal and accounting analysis of Wisconsin state public finance laws governing capital investments to provide a basis for debt-financing investments in distributed GSI in the [Compendium of Debt-Financing Options for Scaled Investments in Distributed Green Stormwater](#).

Municipal bonds, general obligation bonds, state revolving loans (SRFs) and even environmental impact bonds are debt-financing approaches that can be leveraged to develop incentive programs that advance GSI solutions across the watershed.¹³ [Appendix A](#) provides an overview of innovative funding, financing, and incentives for GSI illustrates various debt-financing approaches that align with the goals of incentive programs.

Conclusion:

The report is intended to provide an overview of local GSI incentive programs, possible design and administration of suitable incentives, and potential approaches for funding and/or financing the budgetary needs associated with an effective incentive program. Collectively, the goals of these strategies are to create a favorable appreciation for GSI among local developers and engineers and to increase the resiliency benefits that GSI provides to the community. In the initial stages, it will be important to work with private property owners and other partners to continuously obtain feedback on all aspects of the program. Identifying performance metrics and collecting systematic data related to program success helps to continuously manage and improve it over time. To provide additional context on incentive programs and explore valuable strategies, a summary of existing incentive programs from across the country are highlighted in [Appendix B](#). By taking affirmative steps, through financing incentives that encourage private developers to implement GSI on their projects, municipalities can realize the benefits at a reduced cost to the public compared to city-constructed projects.

























11. [Safeguarding Tomorrow through Ongoing Risk Mitigation \(STORM\) Act](#) (2021)

12. [Bipartisan Infrastructure Law: State Revolving Funds Implementation Memorandum](#), March 2022

13. [Compendium of Debt-Financing Options for Scaled Investments in Distributed Green Stormwater Infrastructure](#), WaterNow (2021).

There may also be tax implications of using municipal bond proceeds to pay for distributed GSI investments. Those tax questions are beyond the scope of the compendium.

Appendix A: Overview of Innovative Funding, Financing, and Incentives for GSI

		Appropriate Incentive Programs				
Debt-Financing Options		Revolving Loan Fund	GSI Rebates	GSI Grants	GSI Design Grants	Resource Links
Municipal Bonds	Municipal Revenue Bonds					Seattle Public Utility Comprehensive Water Efficiency & RainWise Programs
	General Obligation (GO) Bonds					Tap into Resilience Toolkit
	Pooled (Revenue) Bonds					Public Finance Authority Water & Wastewater Pooled Bonds Program Sustainable Development Goals
	Environmental Impact Bonds					Buffalo Sewer Authority Green Infrastructure environmental impact bond
	WI Clean Water State Revolving Funds					Department of Natural Resource's SRF Reference Guide
Loans	WI DNR Small Loans Program					Small Loans Program
	Public Purpose Project Loans (Board of Commissioners)					BCPL Loan Program Overview
	HUD Section 108 Loan Guarantee Program					Tap into Resilience Toolkit: Section 108 Loans

Appendix B: Examples of GSI Incentive Programs

GSI Grant Programs

[Onondaga County, NY Green Improvement Fund \(GIF\)](#) provides funding for a variety of GSI practices on private property. Grants are awarded based on design criteria to treat stormwater runoff to reduce peak combined sewer overflow events. To date the grant program funded 98 projects capturing more than 48.5 million gallons of runoff annually. To date, GIF has awarded over \$11.6 million in funding to GSI projects.

[Northeast Ohio Regional Sewer District](#) dedicates \$1-\$2 million for a Green Infrastructure Grant Program for community partners, NGO's, member agencies, and municipalities with funding for retrofits on non-residential property. Since 2015, the District contributed \$4.53 million in grant funds for 26 projects.

[Milwaukee, \(WI\)](#) provides GSI grants for commercial properties to improve water quality by capturing runoff and reducing the amount of impervious surfaces in the city. The Green Infrastructure Grant provides funding for up to 50% of the total project costs at a maximum of \$25,000. Funding provides assistance with project design and/or implementation.

GSI Rebate Program

[Madison's \(WI\)](#) rebate program reimburses private property owners for implementing GSI practices that reduce stormwater runoff volume. Eligible private properties within a pilot neighborhood were selected for GSI in the adjacent right-of-way. In coordination with scheduled street improvements, property owners that select upgraded GSI options for additional infiltration and reduced mowing are reimbursed up to 80% of project expenses (up to \$1,000).

New/Redevelopment Incentives

[Chicago's Neighborhood Opportunity Bonus Program](#) allows developers to pay a fee to increase the floor area ratio (FAR). The cost per square foot of floor area = 80% x median cost of land per buildable square foot. Payments for the FAR increases are then allocated into three different community development funds (which could include GSI).

[Seattle Green Factor Program](#) incentivizes GSI at new/redevelopment sites by creating a scorecard to evaluate new and redevelopment projects. Projects are required to provide a certain percentage of vegetation with embedded incentives to reduce landscape footprint in exchange for higher-performing GSI.

[Chicago's Green Permit](#) program is a new/redevelopment incentive that allows property owners who incorporate green roofs or other GSI strategies to receive an expedited permit (within 30 days). Developers that display a "high level" of GSI strategies may have review fees waived altogether. Property owners may also receive technical assistance on GSI solutions. The projects must also include USGBC's LEED® certifications.

[Philadelphia Developer ROW Incentive Program](#) is a new/redevelopment incentive that provides funding to property owners/developers who are able to direct drainage area from the right-of-way (ROW) into their post construction stormwater management practices.

Appendix B: Example of GSI Incentive Programs continued

Stormwater fee Discounts

[The City of LaCrosse](#) offers a discount on stormwater fees up to 80% for providing water quality and quantity improvements through selected GSI practices. Stormwater discounts can provide substantial discounts to large properties and coupled with other incentive programs can cover the up-front capital cost of GSI projects or future ongoing maintenance; attractive for increasing GSI implementation.

Tax Credits as Incentives

[Anne Arundel County, Maryland](#) offers a stormwater management tax credit to residential and commercial property owners implementing qualifying GSI practices. Participants can receive accredit up to 10% of cost for materials and implementation. Property owners can select from a list of fifteen project types to obtain an annual allowable credit with a maximum payout of \$10,000 over five years.

GSI Awards & Recognition Program

[U.S. Green Building Council](#) hosts various award and recognition programs including education opportunities, project examples, and case studies.

GSI Design Incentives

[Rainscaping](#), a landscaping certification and free technical design program designed to increase the use of GSI provides on-site assessments for residential properties and small businesses. The Lower Grand River Organization of Watersheds (LGROW) provides personalized assessments with follow-up recommendations of practices, project design samples, and connections to local certified contractors. Participating businesses discover GSI-related benefits like amenities to guests and neighbors, increased visibility that results in higher customer retention.

[Lake Champlain, VT](#) partnership with SeaGrant and BLUE, a local stormwater mitigation program that offers certification and design assistance, provides free home evaluations for applicability to reduce runoff. BLUE certifies residential and commercial properties as “water-friendly” for actively managing stormwater onsite implementing GSI.



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