

Why green stormwater infrastructure is smart policy and smart business

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Stormwater management is a critical challenge in Philadelphia, especially this time of year. It is fortunate then, that a nature-based approach known as green stormwater infrastructure (GSI), is an economic powerhouse with tremendous benefits that include lower crime rates and reduced health costs for communities and the city as a whole.

In fact, new research commissioned by SBN finds that Philadelphia's Green City, Clean Waters (GCCW) stormwater management plan will produce \$4 billion in total economic impact for Philadelphia, including supporting an average of 1,160 jobs annually. This is truly an instructive case for how a green approach can advance a triple bottom line economy in which people, planet, and profit all thrive.

Green City, Clean Waters is the City of Philadelphia's 25-year plan for managing stormwater. Led by the Philadelphia Water Department, the comprehensive effort aims to avoid overburdening the already stressed city sewer infrastructure. Solutions are found across both public and private properties throughout the city, and include vegetation such as green roofs and tree trenches and technology such as porous pavement. Philadelphia is the national leader among large cities for this intentional and impactful effort to use green stormwater infrastructure.

The Sustainable Business Network of Greater Philadelphia commissioned Econsult to do an update on research we first issued in 2016 evaluating the local economic, social, and environmental impacts of GSI and GCCW. At the 5-year anniversary of the plan, the research proved what SBN already knew: GCCW was producing a strong economic benefit, with initial data demonstrating that the impact of GCCW on Philadelphia would be \$3.2 billion over 25 years. A few years later, we wanted to reevaluate. Econsult's recent evaluation indicates the total projected economic impact of GCCW for Philadelphia has risen to an impressive \$4 billion.

In other exciting findings, the research shows that new and improved open spaces resulting from GSI reduced crime by 8.7 percent and saved the city \$50 million annually in avoided health-related costs. Typically, green spaces encourage more people to spend time outside and engage in physical activity. Community use and active maintenance increase the number of eyes and ears observing and makes



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Green roofs at the University of Pennsylvania's College House.

criminal activity riskier. The health and safety benefits of GSI are particularly impactful in low and moderate-income communities, where 65% of public GSI projects are or will be located.

Not only has GCCW helped to make Philadelphia a safer and more sustainable city in which to live, but it has also spawned a thriving local green stormwater management industry. SBN proudly supports a strong network of 70+ local businesses in the five-county region that perform design, construction, and maintenance work for GSI projects as well as supply materials.

This group of SBN members is the foundation for our GSI Partners initiative, the region's only business-informed effort focused on maximizing green approaches to stormwater management and ensuring the public and private investment on these projects is directed to local firms. Econsult found the economic impact of SBN's GSI Partners in Philadelphia to be \$89 million in 2018.

Mt. Airy based landscape architecture firm, Roofmeadow, is one of SBN's founding GSI Partners. It opened its doors in 1997 but rarely worked in Philadelphia until GCCW was launched in 2011. Since then, over 400,000 square feet of Roofmeadow's living roofs now grace the city's skyline. The woman-owned firm is conducting about 60% of its business within the city, and it has launched a local green roof contracting company which hires returning citizens and others with barriers to employment.

Roofmeadow relies on the GSI Partners tuition reimbursement program and SBN's Best Practice Forums to train its staff and develop key leadership skills. GSI Partners' various forums are creating high impact opportunities for Roofmeadow and other GSI Partner firms to collaborate with each other and with regulators to keep innovating novel strategies for more rainwater-managing green spaces throughout the city.

On May 23, SBN convened the region's robust GSI industry to celebrate our 4th Annual Excellence in GSI Awards. We recognized the region's leading firms and their clients for the innovative public and private projects and technologies that are providing important environmental, social, and economic benefits to our city and region.

The awards are also a good time to reflect on infrastructure priorities and how we can choose investments that ensure the greatest return for people and our planet. In Philadelphia, the case is clear that investing in GSI through Green Cities, Clean Waters is a winning choice.

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