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A Closer Look at Environmental Impact Bonds.

How Are They Affecting Green Infrastructure?

Across the nation, countless cities with antiquated sewer and stormwater systems are under orders from the U.S. Environmental Protection Agency (EPA) to reduce stormwater runoff to decrease the amount of pollution entering local waterways. When Washington, D.C., faced this problem, city officials decided to experiment with green infrastructure rather than investing in expensive new pumps and pipes. Since green infrastructure had never been implemented on such a large scale, however, the city faced a huge challenge when it came to financing the project.

For the city, the solution was to launch the country's first Environmental Impact Bond, or EIB. Considered a "pay for success" strategy, an EIB allows cities to share both the risks and the rewards of solving problems through innovative strategies with investors. They make it possible for governments, investors and other participants to focus on overall outcomes rather than specific activities, and they are proving successful.

What are EIBs, how do they work and how exactly are they affecting green infrastructure? Let's take a closer look.

EIBs and How They Work

EIBs are instruments for financing large projects that pay returns based on outcomes. Like Green Bonds, they are commonly used to raise funding for environmentally sustainable projects, such as green infrastructure. Unlike Green Bonds, however, the financial return of the investment is tied directly to the success of the project. In other words, investors can only collect a return on their investment if the project proves to be successful. In the case of financing green infrastructure projects using an EIB, investors see a financial return when a demonstrable difference to the environment is achieved.

The current generation of investors cares about environmental and social returns as much as it cares about financial gain. Known as "impact investors," these individuals and organizations are seeking environmental, social and financial returns when making investments. When a municipality decides to fund a green infrastructure project using EIBs, it seeks investors who want to help pay for environmental capital projects.

Once bonds have been issued, the issuer uses the obtained funds to pay for their planned green infrastructure solutions. The principal amount of the bonds and interest must be remitted on scheduled payment dates. Following an evaluation period, the issuer pays the investors an outcome profit when there is demonstrable proof that the project has performed better than expected. If it underperforms, however, the investor must pay the municipality a "risk-sharing" payment. This usually means that the investor receives little or no interest.

RELATED — Sharing the Risks and Rewards: Examining the 'Pay for Success' Model of Environmental Impact Bonds

What Is Green Infrastructure?

Green infrastructure, also sometimes referred to as GI, is an innovative approach to managing stormwater runoff. It utilizes natural processes, such as evapotranspiration and infiltration, to slow down stormwater to prevent it from overwhelming municipal sewer systems and polluting waterways.

Green infrastructure also harnesses the power of these natural processes to clean and sometimes reuse stormwater. There are several types of green infrastructure, but the overall goal is to replicate natural environments and make it possible to deal with rainwater and snowmelt runoff as naturally as possible.

Green infrastructure includes things like permeable pavements, bioretention and roof-top collection processes. Porous asphalt, pervious concrete, rain gardens, bioswales and tree boxes can all be used in green infrastructure processes as a means of allowing water to be absorbed naturally into the ground. Green roofs, rain barrels and cisterns serve as options for collecting or reusing rainwater and reducing runoff. Man-made wetlands are also common solutions for dealing with stormwater in urban and suburban areas.

Benefits of Environmental Impact Bonds for Green Infrastructure

Because green infrastructure solutions are relatively new and have not been tested in the long term, obtaining financing is often a major challenge for municipalities. Environmental Impact Bonds provide access to funding for projects that are normally difficult to finance. They may also make it possible to obtain financing faster by engaging new investors.

Green infrastructure projects are sometimes risky. Financing them through EIBs means that the risk is shared by municipalities and investors. This, of course, makes it easier for municipalities to embrace green strategies since they are not carrying the entire burden if a project fails.

How EIBs Are Affecting Green Infrastructure

There are more than 700 communities throughout the United States with combined sewer systems. This means that stormwater and raw sewage flow through the same system before reaching a treatment facility. When these systems are overwhelmed, the combined sewage and stormwater ends up polluting local waterways. EIBs make it possible for municipalities facing this type of problem to fund environmentally friendly projects as solutions.

In the case of Washington, D.C., the original plan was a $2.6 billion tunnel system to keep overflow out of local rivers. Partway through the project, however, planners realized that green infrastructure initiatives would cost less ($25 million) while helping the city solve its wastewater problem. The country’s first EIB made it possible to move ahead with this innovative project that may have otherwise been impossible to finance.

EIBs are having a huge impact on green infrastructure because they enable municipalities of virtually all sizes to embrace solutions like permeable pavement, green roofs and rain gardens. Financing such projects through traditional means is often challenging due to the unique risks involved with green infrastructure, but organizations are coming up with creative ways to implement greener infrastructure. For example, Atlanta won the first EIB Challenge supported by the Rockefeller Foundation and will be provided with $12.9 million worth of green infrastructure. With the help of creative financing, EIBs make it possible for municipalities to embrace these innovative, environmentally friendly and cost-effective alternatives to traditional stormwater management

infrastructure.

A Unique Funding Option

The impact of paving over forests, meadows and wetlands has been seen on a massive scale across the nation. Through green infrastructure projects, however, many cities and communities are creating natural methods of dealing with stormwater runoff. Environmental Impact Bonds can provide a unique means of funding these projects, as they allow municipalities to share the risk with investors who are interested in environmental, social and financial returns on their investments.

Atlanta DWM completes first publicly-issued Environmental Impact Bond

Quantified Ventures, an impact investment firm, and Neighborly, a mission-oriented broker dealer, recently announced the issuance of the first impact bond to be offered on the public markets. The $14 million Environmental Impact Bond (EIB) gives the City of Atlanta Department of Watershed Management (DWM), access to funding for innovative green infrastructure projects that will address critical flooding and water quality issues, reduce stormwater runoff and enhance the quality of life of Westside neighborhoods that are in the Proctor Creek watershed.

The Atlanta EIB builds on the success of previous impact bond offerings in several ways. As a publicly issued bond, it has all the hallmarks of a traditional public municipal bond offering, such as a designated CUSIP number providing wide distribution and access to the secondary market, and has been highly rated by Moody’s (Aa3) and S&P (A+). It is also designed to be priced competitively with other municipal bond offerings.

The Atlanta EIB is the second impact bond to be structured by Quantified Ventures as an actual municipal bond, the first of which, with the DC Water and Sewer Authority, was sold in a private placement. In its role in the Atlanta offering, Quantified Ventures brought expertise in evaluating all aspects of EIBs, which require an ability to translate desired outcomes into financial value that can be priced into a security and develop a rigorous evaluation process.

WATER FINANCING & MANAGEMENT

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