

Sustainable Stormwater Management

Developing alternative stormwater management markets and to test the business model

Project/Challenge

Stormwater is traditionally managed by centralized governance, despite the inherently distributed nature of rainfall and the parceled management of our landscapes. As a result, our public agencies have developed regional gray infrastructure solutions. This project is about developing markets to encourage property owners to participate and value the management of stormwater. Specifically we examine whether and how organizations with stormwater management responsibility will pay for third party distributed stormwater services.

Solution

Three market models for distributed stormwater solutions were developed:

- Retrofitting stormwater management facilities (cisterns, detention ponds, etc.) with existing smart technology to enable the control the release of water depending upon the value of the capacity at that point in time.
- Conversion of underutilized urban brownfield sites into large-scale green infrastructure investments that provide inflow reductions.
- Engagement of communities (e.g. residents, villages, insurance) to monetize avoided future flood costs by making landscape management choices that lowers flooding risk.

In addition, the project plans to develop an on-line information database for market engagement that allows users to assess stormwater service values of green infrastructure alternatives.

Results

To date, we have identified buyers, sellers and capital for piloting market-based transactions in Chicago and Milwaukee. In addition, in each of the cities approached (Detroit, Chicago, Milwaukee) we have been able to advance the discussion of distributed and sustainable stormwater solutions. Pilot projects are being further defined to test each of the business models.



Why Greenleaf Advisors

Greenleaf Advisors was asked to participate in this grant for its financial market acumen combined with its deep stormwater and green infrastructure experience within the Greenleaf Intelligent Infrastructure Discipline. Greenleaf Advisors also was able to access networks within each city to identify leaders who would be likely participants in testing new markets.

Partners / Sponsors

We would like to thank the Great Lakes Protection Fund for their generous support of this project.