Green Infrastructure Projects In Detroit's Lower East Side and Recovery Park

Detroit, Michigan

Detroit Skyline Source: U.S. EPA National Exposure Research Laboratory

EPA Region 5 and EPA's Office of Brownfields and Land Revitalization are working with other federal agencies to support the City of Detroit's blight elimination and land use and infrastructure efforts. EPA is providing assistance to help the city accelerate brownfield redevelopment, train staff to monitor environmental conditions, and work with local officials to reclaim vacant land and conduct greener demolitions.

As part of this effort, EPA is helping Detroit reuse vacant properties for green infrastructure projects. In 2014, Detroit received a one million dollar Shoreline Cities Green Infrastructure Grant through EPA's Great Lakes Restoration Initiative. This funding is supporting major green infrastructure projects in Detroit's Near East Side. One project will transform vacant lots into greenspace consisting of meadows, trees and other vegetation. It is estimated this project will reduce the discharge of untreated stormwater into the city's combined sewer system by approximately 100,000 gallons during significant storms.

The second project involves installing green infrastructure in the Recovery Park neighborhood to reduce the discharge of untreated stormwater to the sewer system by approximately one million gallons during significant storms. The EPA grant can be used to fund up to 50 percent of the cost of green infrastructure projects on public property. Two Detroit-based foundations are contributing funds to match the EPA grant. The green infrastructure projects will be constructed on vacant land and are expected to create models for future vacant-lot treatments. (For more information, see http://www.epa.gov/greatlakes/fund/shoreline/).

EPA also awarded $200,000 to the State of Michigan through its Brownfield section 128(a) grant program for environmental site assessments of brownfields and vacant properties in Detroit. These funds were targeted for parcels where green infrastructure will be implemented. This was the first time that EPA provided brownfields assessment funding specifically for sites that would be used for green infrastructure.

Implementing green infrastructure on vacant parcels is a major opportunity in Detroit, a means of helping to reduce CSOs and helping to foster neighborhood stabilization. EPA and the Michigan DEQ have sparked green infrastructure implementation in two areas of the city via requirements in the National Pollutant Discharge Elimination System (NPDES) permit for the Detroit Water and Sewer Department (DWSD). One provision in the permit requires DWSD to invest $3 million annually in green infrastructure stormwater projects in one part of the sewer service area.

To demonstrate the feasibility and aesthetics of green infrastructure on vacant parcels, the nonprofit organization, Greening of Detroit, collaborated with residents and community groups in the Cody-Rouge neighbor-

Community members planting trees

hood to transform 10 vacant residential lots owned by the Michigan Land into natural, low-maintenance spaces that will become neighborhood assets. Community residents were engaged in the process of selecting one of four low-maintenance treatment plans for each location: a low-growth prairie grass; a perennial wildflower mix; a rye grass and wildflower combination; and tree planting. Each treatment is designed to stabilize and beautify the areas, increase the tree canopy, and reduce stormwater runoff. The community voted on plans for each of the 10 properties.

Many vacant parcels in Detroit have abandoned buildings that are in poor condition and present safety risks. Major efforts are underway to demolish dilapidated structures. EPA's Land Revitalization Program is working closely with the state and local stakeholders to plan and conduct demolitions in ways that will be protective of the environment and citizens, and which will facilitate green infrastructure implementation on these parcels. (See box below.)

EPA Land Revitalization Team Provides Assistance for Better Demolition Practices to Improve Urban Soils

Detroit plans to demolish up to 80,000 unsalvageable residential structures in the next five years, according to an ambitious blight elimination plan announced in February 2014. EPA Region 5 assisted Detroit's Blight Task Force by providing technical assistance with environmentally sensitive activities of residential demolition—from pre-planning to site rehabilitation.

Using environmentally beneficial residential demolition practices can set the stage for constructing green infrastructure and revitalizing vacant lots. This often includes properly removing and recycling demolition debris, minimizing soil compaction, restricting the types and amounts of fill that can be used, and preparing surface soil more carefully for vegetation.

Region 5 convened a U.S. EPA Demolition Best Practices Workshop on March 4, 2014. Local experts discussed ways to reasonably incorporate materials management, health, and workforce development strategies in planned residential demolitions.

The information from the workshop was intended for use by Detroit's Blight Task Force for development of the task force's report, and by the Detroit Land Bank for future implementation. Solution-oriented breakout sessions focused on six key issues related to residential demolition: public health, economic development, job training, communications, deconstruction, and recycling. For more information on the Demolition Best Practices Workshop, please visit: http://detroitfuturecity.com/wp-content/uploads/2014/03/dfc-demo-best-practice-20140228.pdf