



Detroit

QUICK FACTS

WHO

City of Detroit General Services Department

STAFF

More than 20 staff members

CANOPY

22.5 percent canopy cover; an inventory is underway to determine exact tree count

PARTNERS

The Greening of Detroit, Southeast Michigan Council of Governments, Michigan Department of Natural Resources, U.S. Forest Service, Detroit Water and Sewerage Department, Michigan Department of Environmental Quality





KEY TOPICS

- Neighborhood Improvement Projects
- Public-Private Partnership
- Public-Public Partnership
- Regional Cooperative Effort
- Stormwater and Watershed Management
- Tree Giveaways
- Tree-care Training Program

IN the late-19th and early 20th centuries, Detroit was honored as a “city of trees.”¹ But in the mid-20th century, Detroit’s urban canopy suffered a tremendous blow that urban forest advocates have been struggling to overcome ever since. Elms once dominated the city, but after Dutch elm disease reached Detroit around 1950, the city began losing trees at an alarming rate. Between 1950 and 1980, about 500,000 trees succumbed to the disease, urban expansion or neglect.² Economic constraints prevented the city from replacing those trees, and Detroit’s urban forest languished in a state of limbo for decades. Adding insult to injury, a new invasive pest, emerald ash borer, arrived in Detroit in 2002 and has since decimated the city’s ash trees — many of which were planted to replace the lost elm trees.

Deep budget cuts have also taken a toll on the city’s forestry program, which is overseen by Detroit’s General Services Department. Associate Forester Todd Mistor says that during the city’s halcyon days in the 1960s and 70s, it employed about 400 individuals, but today, there are only 22. “Certainly our budget is constricted more and more every year,” he says. “Part of the result is that as people retire, we don’t fill those positions again.”

“Land cover, greenways, green infrastructure, stormwater management — all of that plays into the greening of Detroit.”

KEVIN SAYERS

Urban and Community Forester
Michigan Department of
Natural Resources

The lack of resources means the forestry team has to focus on “the worst of the worst,” he says. “We’re out looking for dead trees every day. We have thousands of standing dead ash and still a lot of dead elm.”

The ambitious efforts of nonprofit organizations, federal and state agencies and volunteers have helped fill the urban forestry gap created by Detroit’s thin municipal budgets. The recovery of Detroit’s urban forest, though, requires much more than just planting trees to replace those lost to disease and infestation. “Land cover, greenways, green infrastructure, stormwater management — all of that plays into the greening of Detroit,” says Kevin Sayers, urban and community forester for the Michigan Department of Natural Resources.

A 2005 Urban Ecosystem Analysis conducted by American Forests reported a canopy of 31 percent in Detroit, but by the time a 2008 survey was completed, that number had dropped to 22.5 percent. While some of this difference may be the result of the differing types of tools and analysis being used, it is a stark example of the toll emerald ash borer has taken. The 2008 study did contain good news, though: There is a lot of available space for trees, which means the canopy could be much greater. “We have a lot of vacant land in the city,” says Dean Hay, director of green infrastructure for the nonprofit The Greening of Detroit.

The U.S. Forest Service is funding the first-ever inventory of the city’s street trees, which is being conducted by Ohio-based Davey Research Group, (DRG) a division of The Davey Tree Expert Company, which specializes in green infrastructure assessments. DRG’s foresters have inventoried about three-quarters of the city so far, but additional funding will need to be secured to complete the project, says Sayers. Michigan Department of Natural Resources is overseeing the project.

The Forest Service, Michigan Department of Natural Resources, Southeast Michigan Council of Governments (SEMCOG), the city of Detroit and The Greening of Detroit plan to use the data to prioritize tree planting efforts, maximize the use of vegetation to absorb stormwater runoff and track disease and pest outbreaks. Finding a problem early could save many trees and a lot of money, Sayers notes.

The inventory has also had the added benefit of fostering cooperation among many of the different entities, both public and private, working on urban forest-related issues, Sayers adds. “It has helped in strengthening the partnerships between The Greening of Detroit, SEMCOG, Davey Trees and the city,” he says.

Detroit’s New Center



A NONPROFIT FORCE

The Greening of Detroit has become well-known in the city as one of the primary forces behind the urban forest restoration and green infrastructure push of recent years. The organization formed in 1989 when founder Elizabeth Gordon Sachs brought together key Detroit residents, business people and industry professionals to reforest the city. At the time, Detroit, like many U.S. cities, was losing an average of four trees for every one planted.³

The organization's original mission was to plant trees. Hay says that the group has planted about 70,000 trees throughout the city since 1989. Over the years, though, The Greening of Detroit has expanded — thanks partly to such partnerships as with the Forest Service's Great Lakes Restoration Initiative — to include educational programs, urban agriculture, open space reclamation, green infrastructure initiatives, green workforce development, advocacy and community building. The nonprofit often partners with federal, state and local agencies; corporations; and foundations to assist neighborhood groups, churches and schools with tree planting and green infrastructure projects.

The Greening of Detroit teamed up with police officers, local police precincts and community residents a few years ago on an innovative project to build community and trust by working together to plant trees in Detroit neighborhoods. The program, called Green Connections, resulted not only in greener, cooler neighborhoods, but also better relations between residents and their local patrol officers — participants observed that people in the neighborhood felt more comfortable walking past the precinct and talking with police officers after a Green Connections event.

Given Detroit's economic situation, The Greening of Detroit has expanded into green jobs training, too. The program initially catered

to youth, employing Detroit high school students to help water and maintain trees around the city. An adult workforce program was added to provide unemployed and under-employed Detroiters with training in green industry skills.

Detroit GreenWorks Solutions is taking advantage of The Greening of Detroit's training background to provide formal training in agriculture, forestry, weatherization and other green jobs to disadvantaged residents. Led by Southwest Housing Solutions with training by the Detroit Regional Workforce Fund, The Greening of Detroit, Henry Ford Community College and the WARM Training Center, the three-year-old program began through a \$4 million, two-year "Pathways Out of Poverty" grant from the U.S. Department of Labor as a way to help with the city's unemployment issues.⁴



KEY POINT

The Greening of Detroit has teamed with local police and residents on tree planting projects to help build community and trust in neighborhoods.

70,000

trees planted in the city by The Greening of Detroit since 1989

Tree planting efforts in Detroit



THERESA POLAND/US FOREST SERVICE/NORTHEAST RESEARCH STATION

1,370

vacant lots were replanted in a year to turn marks of urban blight into green oases.

Green infrastructure projects also bring much-needed aesthetic benefits to the city. In targeting vacant lots, for example, Greening of Detroit transforms a mark of urban blight into a green oasis. The organization replanted 1,370 vacant lots in 2009 with wildflowers, trees or shrubs,⁵ and in 2011, it helped plant more than 1,400 community vegetable gardens throughout the city and provided environmental education instruction to more than 5,000 school-age students. Overall, The Greening of Detroit has helped install 77 school-yard habitats, educated more than 30,000 youth and trained 1,900 educators to foster Detroit's next generation of environmental stewards.

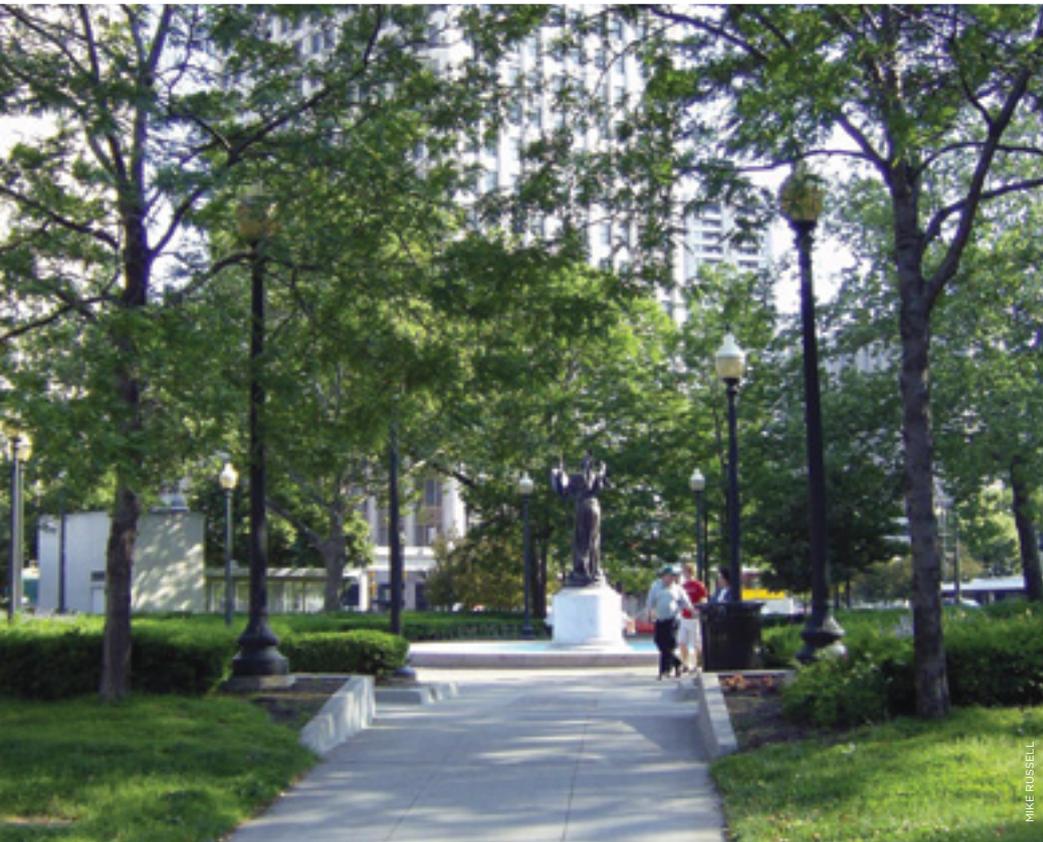
In terms of its tree planting projects, The Greening of Detroit works closely with the city's General Services Department — and sometimes the Water and Sewerage and Recreation Departments — to determine where to place trees. “The city actually relies on us to do tree planting,” Hay says. “Whenever an area opens up or a neighborhood wants to do planting, we get involved.”

Rebecca Salminen Witt, The Greening of Detroit's president, notes that once a community starts planting trees, residents often become interested in developing other projects with The Greening of Detroit, such as urban gardens. The tree plantings have helped build community by bringing people out of their homes to meet and interact with their neighbors, she says.

With so much to do to restore the city's urban forest, the organization has found it helpful to prioritize its work, Hay adds. “Because there's so much planting to do, our main focus in the forestry arena and our funding for trees goes toward neighborhood-based tree planting and then maintenance for three years afterwards,” he says.

The organization is focusing its planting efforts on places where re-establishing trees would bring the greatest benefits for the ecosystem as a whole, either in helping to reclaim brownfields, absorb stormwater runoff or filter pollution.

Grand Circus Park



MIKE RUSSELL

“Because there's so much planting to do, our main focus in the forestry arena and our funding for trees goes toward neighborhood-based tree planting and then maintenance for three years afterwards.”

DEAN HAY
Green Infrastructure Director
The Greening of Detroit



U.S. FISH AND WILDLIFE SERVICE MICHIGAN REGION

William G. Milliken State Park stormwater treatment system along the Detroit RiverWalk

GREENING FOR STORMWATER

Stormwater management is one of Detroit's biggest challenges, and several efforts are underway to use green infrastructure to help address the problem. The Southeast Michigan Council of Governments (SEMCOG), which represents more than 150 local governments in Southeast Michigan, is working to expand green infrastructure and maximize its benefits in the region. It has collaborated with the city and The Greening of Detroit to identify where trees and other types of green infrastructure can be planted and constructed to slow down and absorb stormwater runoff, which contributes to the pollution of the Great Lakes.

One of the efforts SEMCOG is involved in is helping identify locations for green infrastructure to help restore and protect the Rouge River watershed, which covers 48 different communities in three counties. In the 1980s, the Rouge River was designated an Area of Concern by the International Joint Commission because of the impact the watershed has on the Great Lakes. Since then, many efforts have been undertaken to address myriad problems — combined sewage overflow (CSO), pollution, erosion and more — facing the Rouge River. While groups like the Alliance of Rouge Communities have found some

success with rain gardens, rain barrels and basin disconnect programs, CSO and stormwater runoff are issues still impacting the watershed. In the 1990s and 2000s, the Detroit Water and Sewerage Department was focused on gray infrastructure solutions to its CSO problems, but when financial crisis hit Detroit in the late 2000s, the city could no longer ask, nor rely on, its citizens to foot the bill for expensive gray infrastructure projects. The department revised its plans and began including green infrastructure as a solution, which is when SEMCOG became involved.⁶



KEY POINT

SEMCOG and partners are working to use green infrastructure as a solution to problems facing the local watershed.



Detroit
Eastern Market



“The difference in Michigan compared to other places is that Michigan’s water-quality standards do not allow for any untreated discharges into waters of the state.”

AMY MANGUS
Manager of Plan Implementation
Southeast Michigan Council of
Governments

“We’re working with the Detroit Water and Sewerage Department on how they can put in green infrastructure to achieve a 20 percent reduction of stormwater inflow into the system” to meet permit requirements, says Amy Mangus, SEMCOG’s manager of plan implementation. This work will help “a small portion of the watershed on the west side of the city.”

Some of the types of green infrastructure that will be used under the initiative include tree planting, which is being done by The Greening of Detroit; replacing pavement with greenery in vacant lots; and installing shrubs, trees and other plants along roadways and on municipal lands, Mangus says. The funding for the projects comes from the sewer rates paid to the city, she adds.

Green infrastructure may also be used in a separate effort to control overflows on the east side of Detroit. “We are just finalizing a grant agreement with the state of Michigan to partner again with the utility to develop a green infrastructure plan for the east side of Detroit,” she says. “There are nine uncontrolled combined

sewer overflows there — nine direct outflows. And there’s so much opportunity there with all the vacant land.”

But because of Michigan’s strict water-quality rules, conventional gray infrastructure also will need to be used in both initiatives, Mangus adds. “This is unlike some other states that follow EPA guidance that allows some untreated overflows. The difference in Michigan compared to other places is that Michigan’s water-quality standards do not allow for any untreated discharges into waters of the state,” she explains. “So there needs to be a mechanism in place for gray infrastructure.”

SEMCOG is also working on a big-picture plan for green infrastructure in southeast Michigan. “We’re mapping land cover for the whole region, and we’ll be doing various types of analysis of that data to develop a vision of green infrastructure,” Mangus says. The project, funded by a grant from U.S. Department of Housing and Urban Development’s regional sustainability planning program, will be completed in about a year.

CREATING A HEALTHY, CONNECTED CITY

Another effort that SEMCOG supported was the regional GreenWays Initiative. From 2001 to 2006, the Community Foundation for Southeast Michigan initiative aimed to connect communities in southeast Michigan through greenways by providing funding and support for green infrastructure projects.⁷ While the grant-making portion of the initiative has ended, its influence can still be felt. In fact, there is an effort currently underway to ensure that the greenways remain well maintained and utilized. This effort and planning for long-term sustainability of the greenways network is being led by The Greening of Detroit and staffed by Detroiters trained in its workforce development program.

In 2012, The Villages Community Development Corporation released its “A Vision of Greenways for the Greater Riverfront East District of Detroit,” which offers a plan for 16 miles of greenways along the Detroit River. Similar to the Greenways Initiative, this vision presents “a realistic plan for creating a network of greenways on Detroit’s Greater Riverfront East District. ... This plan serves as a catalyst for economic development, as a tool for bringing communities together and as a way of defining a new future for Detroit’s greater riverfront east.” This plan was developed by the Greater Riverfront East Environment Network (GREEN) Task Force comprised of community residents, neighborhood and business associations and other collaborators — plus, the plan received input from the city of Detroit, Michigan Department of Transportation and others.⁸

A similar city-sponsored project is underway nearby. In July 2012, the city of Detroit was awarded a \$10 million Transportation Investment Generating Economic Recovery (TIGER) grant from the U.S. Department of Transportation for a project to promote walking and biking near downtown Detroit.⁹ As part of Link Detroit — a multi-modal enhancement plan designed by the city — this project will connect important commercial and business areas, such as the Detroit RiverWalk, Eastern Market, Midtown and Hamtramck destinations.

The many interconnected efforts to green Detroit and its environs, from tree planting to workforce training to green infrastructure development, are crucial not only for the ecological health of the city, but also for its economic recovery.

“Improving the economic vitality and non-motorized connectivity in Detroit are key components to the city’s long-term sustainability and viability,” according to Link Detroit’s TIGER grant application.¹⁰

“I think the quality of the vegetation is directly correlated with the quality of life, the appearance, the appeal of a community,” adds Sayers of the Michigan Department of Natural Resources. “A well-maintained urban forest yields many benefits, including a greater desire to invest in the city — whether with new residents or new businesses. Healthy and well-maintained public trees establish community appeal and a sense of vibrancy that leads to healthier communities as well.”

With the work and cooperation of so many groups, a healthy urban forest, healthy citizenry and healthy Detroit may very well emerge in Michigan in the years to come.

“I think we’re doing a good job in improving the quality of life for people,” Associate Forester Mistor says. “We need to do it one step at a time, one block at a time.”



KEY POINT

The many interconnected efforts to green Detroit are crucial not only for the ecological health of the city, but also for its economic recovery.

SPECIAL THANKS TO:

Dean Hay, green infrastructure director, The Greening of Detroit

Amy Mangus, manager of plan implementation, Southeast Michigan Council of Governments

Todd Mistor, associate forester, City of Detroit General Services Department

Kevin Sayers, urban and community forester, Michigan Department of Natural Resources

Rebecca Salminen Witt, president, The Greening of Detroit

References

1. MGM Grand Detroit. Local Press Releases. MGM Grand Detroit, The Greening of Detroit and Local Community Leaders Break Ground for \$1 Million Urban Greenhouse and Garden. <http://www.mgmgranddetroit.com/press-room/press-releases-template.aspx?ID=1020> (accessed Sept. 17, 2012).
2. The Greening of Detroit. Who We Are. <http://greeningofdetroit.com/who-we-are/> (accessed Sept. 2, 2012).
3. The Greening of Detroit. Who We Are. <http://greeningofdetroit.com/who-we-are/> (accessed Sept. 2, 2012).
4. Southwest Housing Solutions. Green Jobs Training Program Gets \$858,000 in Federal Funds to Continue Its Exemplary Work. http://www.swsol.org/articles/JFF_grant (accessed Sept. 11, 2012).
5. Anstett, P. Greening of Detroit “We Like to Say We Plant Peas to Trees.” Detroit Free Press [Online] 2010. <http://www.freep.com/article/20100418/GREEN01/4180448/Greening-of-Detroit> (accessed Sept. 17, 2012).
6. Natural Resources Defense Council. Water. Rooftops to Rivers II. <http://www.nrdc.org/water/pollution/rooftopsii/files/rooftopstoriversII.pdf> (accessed Sept. 17, 2012).
7. Southeast Michigan Council of Governments. Green Infrastructure. <http://www.semco.org/GreenInfrastructure.aspx> (accessed Sept. 10, 2012).
8. Community Foundation for Southeast Michigan. Greenways Initiative. A Vision of Greenways for the Greater Riverfront East District of Detroit. http://cfsem.org/sites/cfsem.org/files/5d-detroit-greenwaysplan_east_detroit-2012.pdf (accessed Sept. 17, 2012).
9. Spangler, T. Link Detroit Project Gets \$10 Million to Improve Routes for Bicyclists, Pedestrians. Detroit Free Press [Online] 2012. <http://www.freep.com/article/20120622/NEWS05/120622028/Link-Detroit-Project-awarded-10-million-to-improve-roadways-for-bicyclists-pedestrians> (accessed Sept. 17, 2012).
10. City of Detroit. Department of Public Works. Link Detroit: A Multi-Modal Enhancement Plan TIGER Discretionary Grant Application. <http://www.detroitmi.gov/Portals/0/docs/publicworks/Tiger%20Grant/Link%20Detroit%202012%20Grant%20Application.pdf> (accessed Sept. 17, 2012).



AMERICAN FORESTS

SOURCE: Urban Forests Case Studies: Challenges, Potential and Success in a Dozen Cities. American Forests, 2012. pp. 92–99.

Copyright © 2012 American Forests.