



Geographic Location	Western Basin of Lake Erie
Population	287,208
Government Structure	Council-Mayor
Per Capita Income	\$18,758

City Fact Sheet: Toledo, Ohio

Located in Northwest Ohio on the shores of Lake Erie, the City of Toledo identifies climate change as a matter of environmental, economic, and health concern. The city has a total population of 287,208 spread over 84 sq. miles. The city is built over a wetland area and ground saturation and stormwater overflow pose major threats to city infrastructure and health. Deteriorating water infrastructure is a major issue throughout the city and region. However, strong leadership by city staff has resulted in progressive action to improve water systems and increase public awareness across the region.

CLIMATE IMPACT

- 3.2°F** Increase in Annual Temperatures (from 1951-2012)
- 41.1%** Increase in the Heaviest 1% of Precipitation Events (from 1951-2010)
- 29** Fewer Days Below 32°F (from 1951-2012)
- 35** More days in the Growing Season (from 1951-2012)

UNIQUE FACTS

- The city is partnering with General Motors and Teledyne to increase green infrastructure in flood-prone neighborhoods.
- Toledo is one of two cities studied by the National Oceanic and Atmospheric Administration's Coastal Service Center for an economic assessment of green infrastructure strategies.
- Toledo updated its stormwater credit program in 2015 to prioritize areas of the city that are most vulnerable to stormwater issues.

OPPORTUNITIES

- City staff are innovative and often successful in finding unique opportunities to support and fund adaptation-related projects and initiatives, including receiving funding from the EPA, partnering with the local Green Jobs Corps, and more.
- Recent work with NOAA and the EPA have helped the city better understand the costs and benefits of green infrastructure as a means for alleviating major stormwater challenges.

CHALLENGES

- Water quality issues are an ongoing issue and have recently garnered national attention.
- In August 2014, Toledo temporarily placed a ban on tap water due to an algae toxin outbreak near the city's intake pipe.
- Toledo's population and tax base have been declining since the 1960's, making funding for adaptation efforts an on going challenge.



ADAPTATION PROJECT: ENGAGING THE PRIVATE SECTOR

The City of Toledo has recently been focused on an area of concern on the north side of the city that frequently experiences standing water after small and large interval storms, leading to property damage within and adjacent to the flood plain. Public utilities staff worked with two private companies to encourage implementation of green infrastructure on their properties and lessen the burden on stormwater infrastructure in highly vulnerable areas. Both properties have completed assessments to determine green infrastructure opportunities that are best suited for their needs and finances. Several easy fixes were identified, such as converting unused parking lots into permeable surfaces, while other strategies are more expensive and require further analysis.

1,100

Miles of Sewer Serve the City of Toledo

20%

Of the Existing System is Still a Combined Sewer and Stormwater System

ADAPTATION WORKSHOP

The City of Toledo held a two-day workshop titled “Coastal Climate Adaptation and Resiliency Workshop: Supporting Climate and Coastal Resilience Planning in the Western Lake Erie Basin.” Sessions throughout the day included an overview of climate change in Toledo, identifying threats and impacts to the city, discussing opportunities for adaptation, and prioritizing next steps moving forward on June 19-20, 2013.

The goals of the workshop were:

- Identify key climate impact threats
- Develop strategic opportunities for the City of Toledo to move forward with adaptation efforts.

For more information visit:

graham.umich.edu/climate/adaptation/urban/toledo

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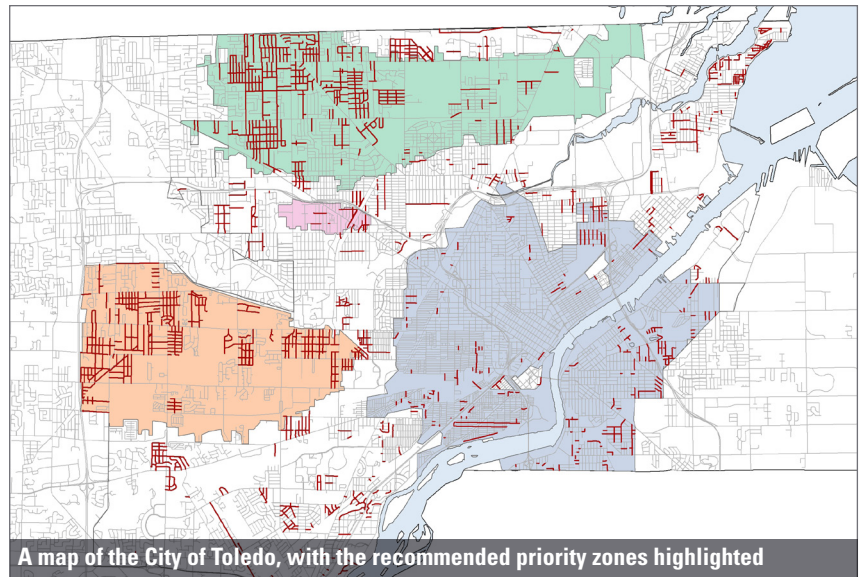
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STORMWATER SOLUTIONS: REVISING TOLEDO’S STORMWATER CREDIT PROGRAM

In the fall of 2013, a team of eight University of Michigan urban planning graduate students worked with the City of Toledo, Ohio to update their existing stormwater credit program. In addition to analyzing the existing credit program, the student project resulted in several key recommendations that are described below. Following City Council approval, Toledo’s Public Utilities Department released the updated stormwater credit program in April of 2015.

KEY RECOMMENDATIONS:

- **Priority Zones:** Properties in highly vulnerable areas should be eligible for more credit. Priority Zones were identified based on past flooding, unimproved streets, and the boundaries of the city’s combined sewer system.
- **Streamlined Credit:** To simplify which practices are eligible for credits, the credit program should focus on how well each practice could reduce the burden the property places on the overall system, either through reducing the quantity of run-off or improving the quality of the water leaving the property.
- **Fixed Fees v. Property Fees:** To alleviate concerns about loss of revenue for the stormwater utility if the credit program became very successful, the utility should charge a fixed fee for administrative costs and a property fee that the credit could be applied to.



A map of the City of Toledo, with the recommended priority zones highlighted



The Great Lakes Adaptation Assessment for Cities increased understanding about the challenges and opportunities municipalities face when adapting to climate change. This effort was supported by the Kresge Foundation and the University of Michigan’s Graham Sustainability Institute, which fosters sustainability through knowledge, learning, and leadership. For more information on the project, see: www.graham.umich.edu/climate.