



# GREAT LAKES PILOT PROJECTS

## City Successes

Communities across the Great Lakes region are experiencing more frequent storms and rising temperatures. Cities are looking for ways to adapt to these changing conditions, but often lack the necessary information and resources. In 2017 with funding from the Urban Sustainability Directors Network (USDN), five Great Lakes cities collaborated with the Great Lakes Integrated Sciences and Assessments (GLISA), the Huron River Watershed Council, Headwaters Economics, and the City of Ann Arbor (MI) to develop a vulnerability assessment template to help cities incorporate climate and socioeconomic information into existing planning processes. Based on the success of this project, 12 additional Great Lakes cities joined a second pilot project with GLISA in 2018 with funding from the National Oceanic and Atmospheric Administration (NOAA) to adapt the template to stormwater management and explore different engagement methodologies to train and guide the cities through completing the vulnerability assessment.

The selected examples and quotes below demonstrate how these 17 cities benefited from the project and used the vulnerability assessment in a variety of contexts, ranging from grant applications to capital improvement planning.



## General outcomes

In several cities, the process of developing the stormwater vulnerability assessment helped city staff build capacity and increase confidence in communicating flood risk to the public.

### Evanston, IL

Engaged several municipal departments and used their vulnerability assessment as the foundation for their 2018 Climate Action and Resilience Plan. Used temperature and precipitation projections to engage residents in the resilience planning process. Recommended specific green infrastructure projects based on the vulnerability assessment.

### Indianapolis, IN

Adapted the vulnerability assessment methodology and climate data for their 2019 Thrive Indianapolis sustainability and resilience plan. Used the climate and socioeconomic data from the project as justification to prioritize equity in resilience planning.



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### Ferndale, MI

The Ferndale City Council adopted the city's assessment in July 2020. Used the vulnerability assessment in their capital improvement planning process. Plans to use the assessment to inform their climate adaptation and master land use planning processes. Will include a green infrastructure element in a roadway resurfacing project, and anticipates using assessment findings to support future grants for additional green infrastructure work in roadways and Complete Streets projects.

### Madison, WI

Completing the assessment helped staff capture the institutional knowledge of the stormwater department, build connections with other city departments, and network with other communities in the region. Will incorporate their vulnerability assessment findings into a broader citywide resilience planning effort. Plans to use socioeconomic data from the project in equity analyses for future stormwater projects.

### Toledo, OH

Used climate data from the project to support an environmental justice grant the city received in 2020. Working on the assessment helped city staff realize that they were missing key data about their stormwater system and initiated conversations about updating their data management practices. City departments formed cross-departmental connections and learned about each other's work and priorities over the course of the project.

## Testimonials from participating cities



### New and useful data

“It might help us better understand some of those environmental justice areas and neighborhoods that we can focus some of our future work on. And have some of that information readily available, so when funding comes up and it says you know we want you to work with communities that are more vulnerable or are disadvantaged, we have a tool to analyze where are these areas at, and what injustice or issues are they facing.”

- City of Toledo Environmental Services

“Pulling in the vulnerability and socioeconomic information really kind of changed the way I've viewed it in the past. I think that we kind of had an understanding of the increased rain events, and the increased large rain events...but I didn't really stop and think about how that might impact certain areas and populations of our city more than others. I think that was kind of new information, a new way to look at it.”

- City of Toledo Environmental Services

## Testimonials from participating cities

"I liked having the climate data all in one place from a reputable source that I don't have to go search for. I'm not a climate scientist so a lot of that I'm not sure about."

- City of Toledo Environmental Services

"I was surprised...I knew our precipitation had increased but I didn't realize how much."

- City of Toledo Environmental Services

"Some of the primary benefits I've seen from it have been that it has essentially eliminated the conversations and the amount of time we had to spend on data source and data collection methodology. It really provided the information in a way that a lot of people were able to digest it, which was really helpful, but then we didn't spend 5 months trying to nail down a methodology or criteria for what data we were going to collect, how it was going to be compiled, how it would be analyzed, and then what we would pull out of that."

- City of Evanston Chief Sustainability and Resilience Officer

## Testimonials from participating cities

“If our goal is to change our sizing process for stormwater pipes, why do we need to do that and what’s the justification for it? Well, here’s this climate data, and if we’re saying we want to invest more in mobility infrastructure in this neighborhood or that neighborhood - why did we pick those? It’s because the index shows those are super vulnerable populations that don’t have cars and we have not built infrastructure in them yet.”

- City of Indianapolis Office of Sustainability

“Coming from the stormwater side of things, when I was [thinking of] vulnerable communities and vulnerable parts of the city, I was thinking of just older infrastructure, or those combined sewer areas where we have a lot of problems or infrastructure problems.... But I didn’t really think about the populations there or the fact that there are other areas outside of those obvious older parts of the city. So it was a different way to look at it.”

- City of Toledo Environmental Services

“In the first few years we used a lot of national level data, and stuff from IPCC and other data sources, but it’s not of interest to decision makers. We need local data, at least Indiana scale, but preferably central Indiana, to even get further along in the conversation.”

- City of Indianapolis Office of Sustainability

## Testimonials from participating cities

### Support for funding



“We have taken climate change and integrated it when we’re thinking of new projects. We’ve been working on some grants and we’ve been trying to incorporate some of the information from the vulnerability assessment into those projects.”

- City of Toledo Environmental Services

“Our main way of incorporating this information will be to integrate it into future grant projects and even just using it as part of our justification for needing some of these grant dollars, and implementing some of the grant projects.”

- City of Toledo Environmental Services

### Interdepartmental collaboration



“I think the cross-departmental retreats that we had and talking about this assessment, the tool, how do we engage residents, how do we improve systems internally, externally...listening to my colleagues in different departments was very impactful for me.”

- City of Dayton

## Testimonials from participating cities

“It got a lot of our different divisions in the room together and discussing these things and seeing how climate change might impact something that Engineering Services is doing, but also sewers and streets. It was just really interesting to have all of us in the same room talking about these things.”

- City of Toledo Environmental Services

## Use in future planning



“I looked at this project as being sort of like a vehicle to move those conversations forward, considering we didn’t have a lot of resources to hire a resiliency officer or hire a firm to do any sort of broad resilience planning.”

- City of Madison Sustainability Department

“We don’t have a Climate Action Plan right now or anything, we were planning to conduct that in the next year and a half and start working on that. So I think that this is another piece of the puzzle that will kind of fit nicely into that.”

- City of Ferndale Environmental Planner

