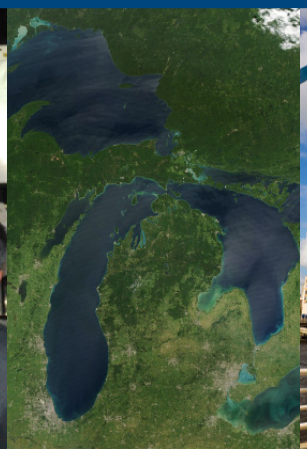
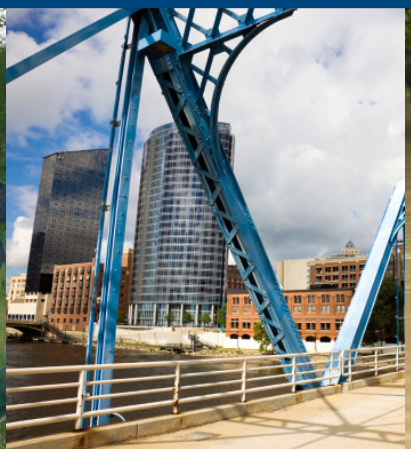
Great Lakes Adaptation Assessment for Cities





Satellite image from NOAA, Great Lakes Environmental Research Laboratories

With support from the Kresge Foundation and the Graham Environmental Sustainability Institute, this Integrated Assessment (IA) will strengthen the science and decision making necessary for more effective urban climate adaptation in the Great Lakes region (both Canada and the U.S.). The IA is led by several University of Michigan (U-M) faculty research teams in coordination with partners across the region and with support from the Great Lakes Regional Integrated Sciences and Assessment center (GLISA). Details at www.glisa.umich.edu.

BACKGROUND

Effective adaptation to climate change is nowhere more critical than in cities because most people now live in urban environments. The Great Lakes watershed accounts for one-fifth of the world's fresh water and houses approximately 10% of the US and 25% of Canadian populations (40 million people total).

Climate change impacts in the Great Lakes region are anticipated to worsen risks of flooding, reduce water availability and quality, increase problems related to heat stress, and negatively impact economies in cities dependent on tourism and recreation. Despite these anticipated risks and their substantial adverse impacts on populations in the Great Lakes region, many urban decision makers highlight the need for place-based climate science and options for responding to impacts.

The Great Lakes Adaptation Assessment for Cities will work closely with regional partners and urban decision makers to identify adaptation needs, opportunities for action, and relative costs of different response options.

EXPECTED OUTCOMES

For cities to develop and implement effective climate adaptation policies, they require a wide range of scientific, social, and policy information. This project will engage experts from diverse fields to:

- Work with city staff and decision makers from six representative Great Lakes cities to develop climate adapation plans or strategies. The plans will provide implementation steps for the cities and will serve as case studies for similiarly situated cities in the region.
- Integrate social and climate science data for a collection of: 1) city-level adaptation plans, activities, and spatial data; 2) web-based surveys of local government officials; 3) information about existing and future infrastructure investments; and 4) a website with adaptation reports on approximately 15 key Great Lakes cities.
- Create a Cities Impacts and Adaptation Tool that can be used by stakeholders to synthesize, communicate, and apply climate-relevant knowledge for urban resilience under different climate scenarios.
- Establish an Urban Council on Sustainability and Adaptation to create greater awareness about the likely urban impacts of climate change and the need for targeted actions to respond to these impacts.

GLAA-C
Great Lakes Adaptation Assessment for Cities

U-M FACULTY LEADS

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PROJECT WEBSITE

Please visit us on the Graham Insitute website at www.graham.umich.edu/glaac

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