The Climate-Ready Infrastructure and Strategic Sites Protocol (CRISSP)

Partnership Snapshot

- **What is CRISSP?** A simplified municipal adaptation tool to help small and mid-sized cities understand and prepare for infrastructure vulnerability due to climate change.
- **Research Partners:** Great Lakes and St. Lawrence Cities Initiative (GLSCI), AECOM, and Gary, IN.
- **Numbers Engaged:** Two boundary organizations (GLSCI; AECOM) and three cities (Gary, IN; Evanston, IL; Traverse City, MI).
- C**ontinuing Impact:** After development and piloting of CRISPP in Gary, the Cities Initiative shared the protocol with 110+ municipalities through training workshops, webinars, and outreach.

More frequent extreme weather events have left Great Lakes municipalities looking for a way to identify and secure vulnerable infrastructure, such as water treatment plants and electricity transformers. Limited municipal resources and a lack of reliable data on anticipated weather changes due to climate change have complicated these efforts. To support municipal planning, Great Lakes Integrated Sciences and Assessments (GLISA) collaborated with the Great Lakes and St. Lawrence Cities Initiative (GLSCI) and other partners to develop an adaptation tool for small and mid-sized cities, CRISSP: the *Climate-Ready Infrastructure and Strategic Sites Protocol*.

The protocol gives municipalities a tool to plan for climate extremes by accessing vetted climate information (such as projected increases in rainfall, storm severity, and the number of extreme heat days) and providing a step-by-step guide to assess vulnerabilities and identify adaptation actions. This guide includes instructions for assembling a CRISSP team across municipal departments, conducting a self-assessment, and taking steps to safeguard critical infrastructure, facilities, and sites. The process was developed to be a quick and low-cost adaptation tool, combining climate data with municipal staff's own knowledge of their assets and existing city planning services.

In addition to supporting the project with a small grant, GLISA accessed and provided customized climate and weather information, coordinated research through state and federal agencies, and worked with project partners to develop the CRISSP technical guide and supporting materials. CRISSP was first piloted with the City of Gary, Indiana. As a result, Gary's annual capital investment planning now includes improvements to infrastructure identified as vulnerable to extreme precipitation.

"The CRISSP puts municipal staff in the driver's seat, helping them to understand how extreme weather could affect the operations of their facility or infrastructure.

By drawing directly on staff knowledge and experience, the CRISSP helped me secure staff buy-in and build a shared sense of responsibility to be prepared for the next storm."

Brenda Scott Henry
Director/MS4 Coordinator
City of Gary, Indiana Green Urbanism/Environmental Affairs

GLISA and partners shared the protocol and lessons learned from the pilot in Gary with GLSCI's 110+ member cities through training workshops, webinars, and outreach. Traverse City, MI, and Evanston, IL, have since implemented CRISSP. GLISA continues to promote CRISSP to small and mid-sized cities in the United States and Canada, through partnerships with the Urban Sustainability Director's Network (USDN) and the Ontario Centre for Climate Impacts and Adaptation Resources (OCCIAR). The CRISSP project continues to generate interest and attention. It was featured in a NOAA Vulnerability Assessment webinar in September 2017 and the protocol was recently updated to provide a more user-friendly format. The GLISA and GLSCI teams will continue to promote the tool in the future.