

Great Lakes Climate Adaptation Resource Guide

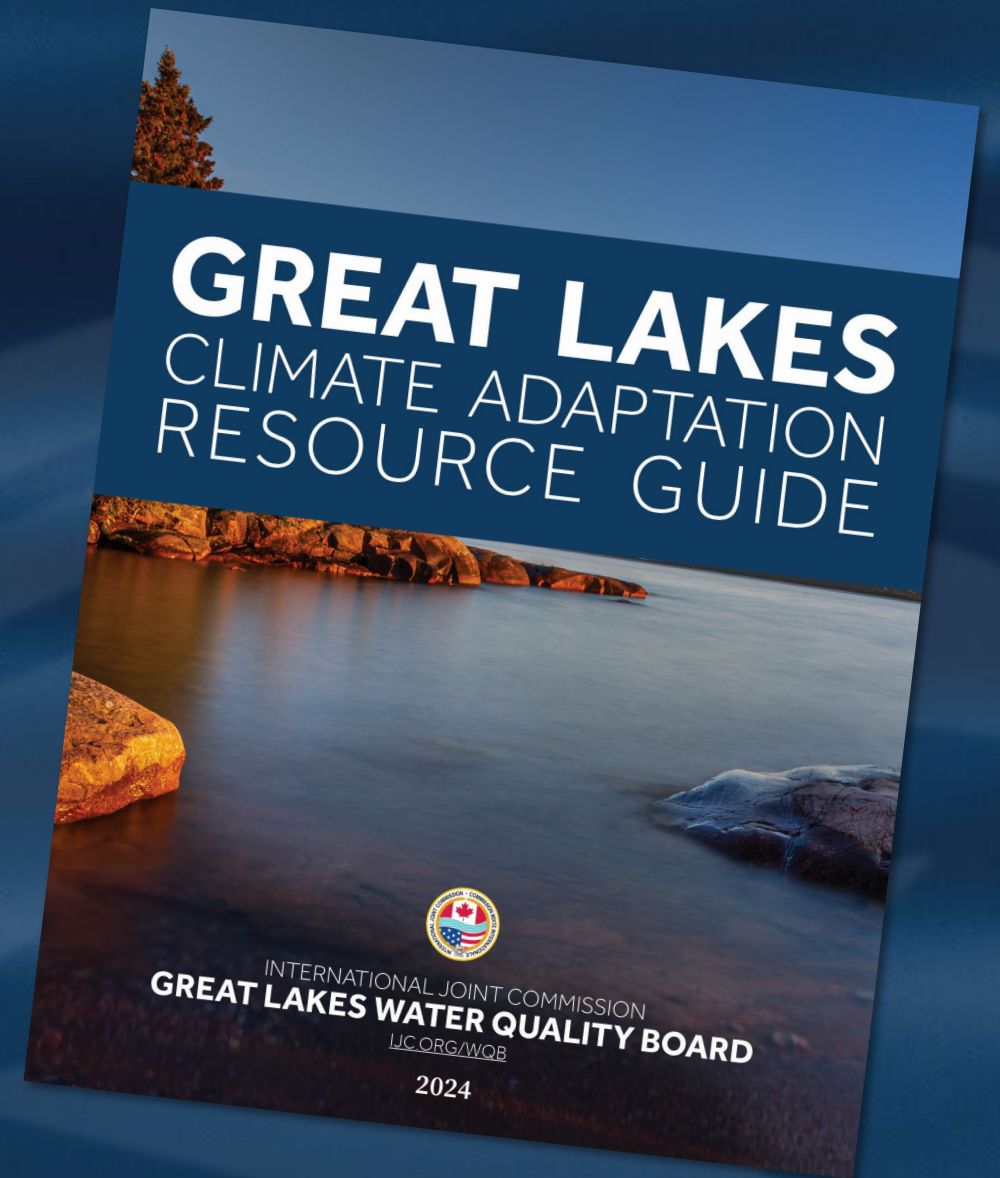
Public Webinar

International Joint Commission
Great Lakes Water Quality Board

September 23, 2025

More than a century of cooperation protecting shared waters

IJC.org





Agenda

- Opening Remarks
- Presentation
- Q and A

Resource guide available at:



bit.ly/GL-Adaptation-Guide

Opening Remarks



bit.ly/GL-Adaptation-Guide



Chris McLaughlin

Great Lakes Water Quality Board

Canadian Co-chair

Executive Director, Bay Area Restoration Council

Project Team Acknowledgments



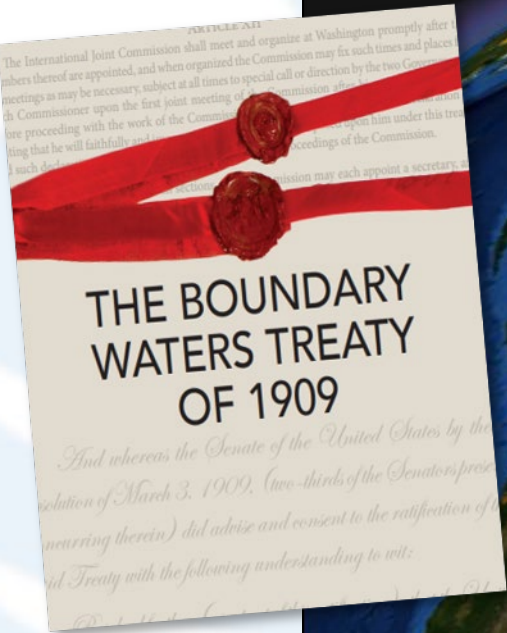
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- Liz Kirkwood, Flow Water Advocates, work group US co-chair
 - Niharika Bandaru, Climate Risk Institute, work group Canadian co-chair
 - Jon Allan, University of Michigan (formerly WQB US co-chair)
 - Bridget Brown, Great Lakes-St. Lawrence Cities Initiative
 - Melissa Dick, ESRI Canada
 - Matthew Doss, Great Lakes-St. Lawrence Cities Initiative
 - George Elmaraghy, Ohio River Valley water Sanitation Commission
 - Frank Ettawageshik, United Tribes of Michigan
 - Mark Fisher, (formerly) Council for the Great Lakes Region
 - Bonnie Fox, Conservation Ontario
 - Carolyn Johns, Toronto Metropolitan University
 - Jamie Lavine, Assembly of First Nations
 - Kelsey Leonard, Shinnecock Indian Nation and University of Waterloo
 - Jérôme Marty, International Association for Great Lakes Research
 - Chris McLaughlin, WQB Canadian Co-chair, Bay Area Restoration Council
 - Eileen Murphy, (retired) New York State Department of Environmental Conservation
 - Joe Tomandl III, Dairy Grazing Apprenticeship
 - Cari Vanderperk, City of Hamilton, ON
- Contractor Team**
- Dawn Schilling, Potomac-Hudson Engineering
 - Samir Qadir, Potomac-Hudson Engineering
 - John Bratton, LimnoTech
 - Craig Taylor, LimnoTech
 - Elizabeth Bradford, Michael Baker International
 - Sarah Halle, Michael Baker International
 - Michael Yaffe, Michael Baker International
- IJC Staff**

International Joint Commission (IJC)



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“...to protect, restore and enhance water quality of the Waters of the Great Lakes.”

IJC Great Lakes Water Quality Board



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- Principal advisor to the IJC on Great Lakes issues and Agreement implementation



Members of the Great Lakes Water Quality Board and IJC staff at the board's April 2025 meeting

Presenters



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Liz Kirkwood

IJC Great Lakes Water Quality Board Member

Project work group US co-chair

Executive Director, Flow Water Advocates



Jérôme Marty

IJC Great Lakes Science Advisory Board Member

Project work group member

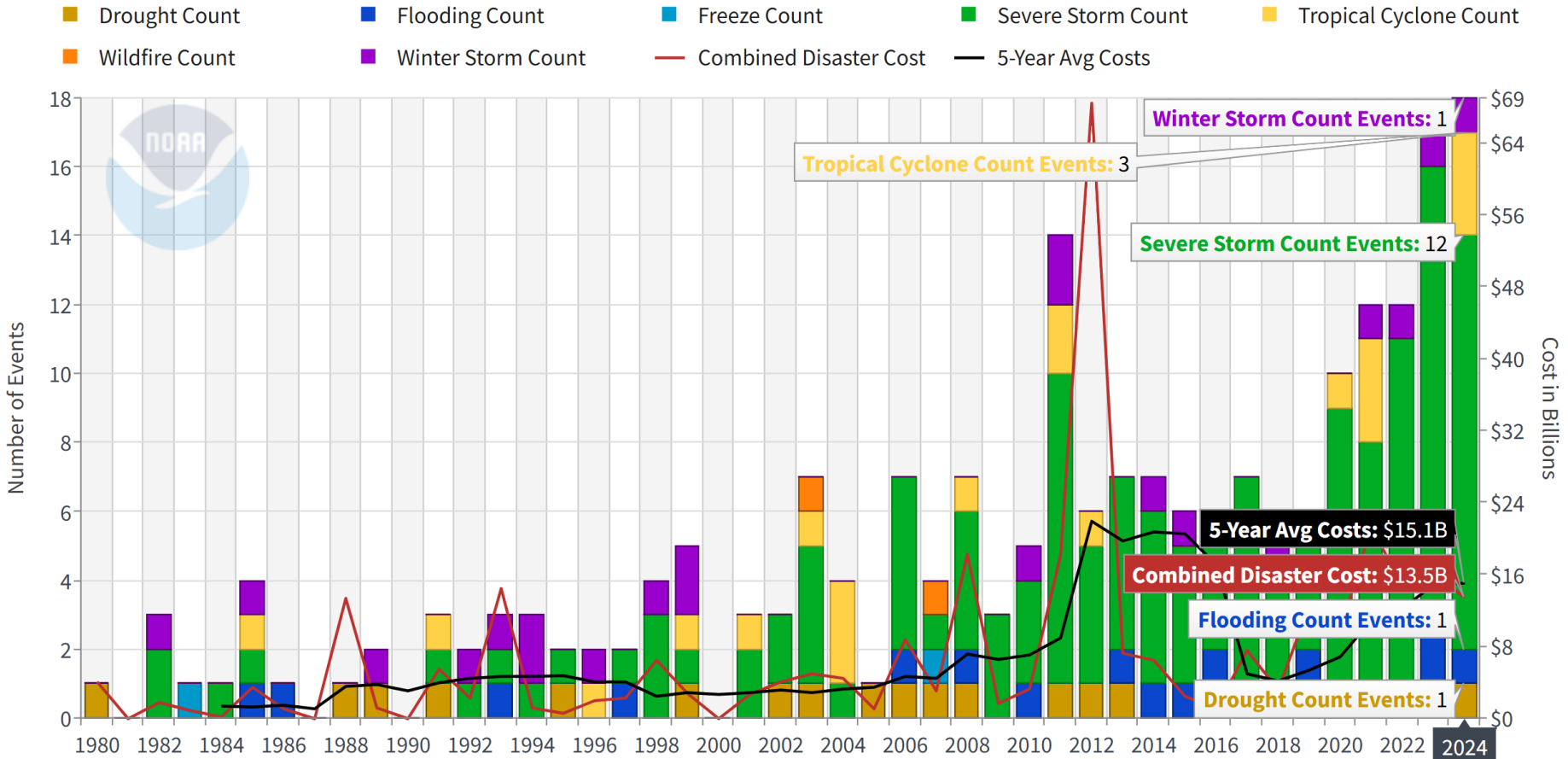
Executive Director, International Association for Great Lakes Research (IAGLR)



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Climate Impacts and Rising Costs

Great Lakes States Billion-Dollar Disaster Events 1980-2024 (CPI-Adjusted)



Updated: January 10, 2025

Powered by ZingChart

US NOAA National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters, 2025

ncei.noaa.gov/access/billions/state-summary/GLS

IJC Focus on Climate Adaptation



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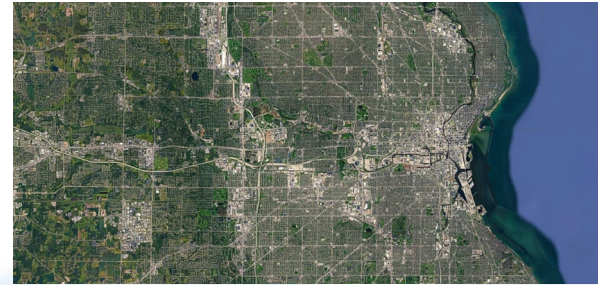


Focusing on Small and Medium Communities

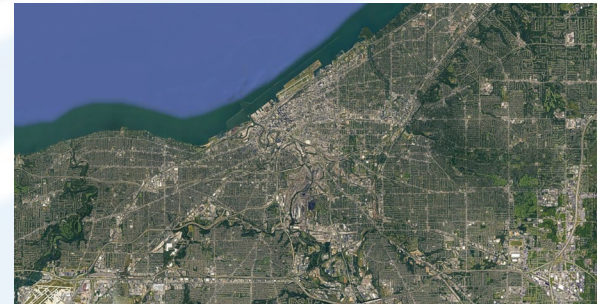


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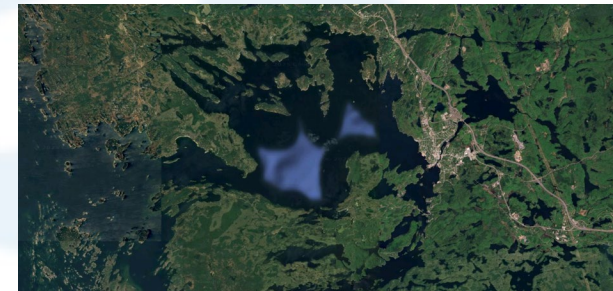
- **Large:**
 - Toronto, ON
 - Milwaukee, WI
- **Medium:**
 - Windsor, ON
 - Cleveland, OH
- **Small:**
 - Parry Sound, ON
 - Houghton, MI



Milwaukee, WI via Google Maps



Cleveland, OH via Google Maps



Parry Sound, ON via Google Maps

Common Challenges for Small and Medium Communities



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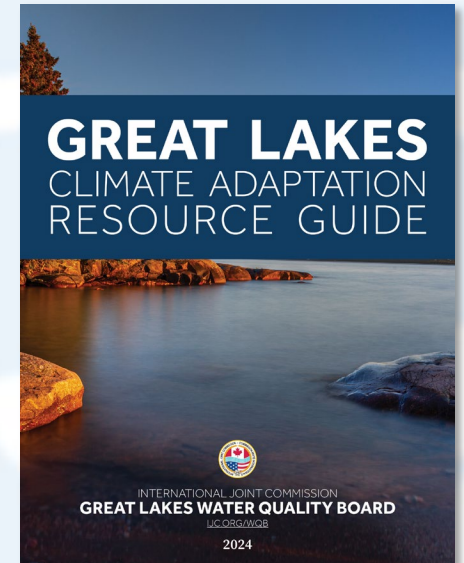
- Financial assets, human resource capacity
- Technical assistance
- Competitive funding/grants
- Lenders and insurers needing community climate plans
- Complex future decision-making
- Access shared tools and resources

Project Goals



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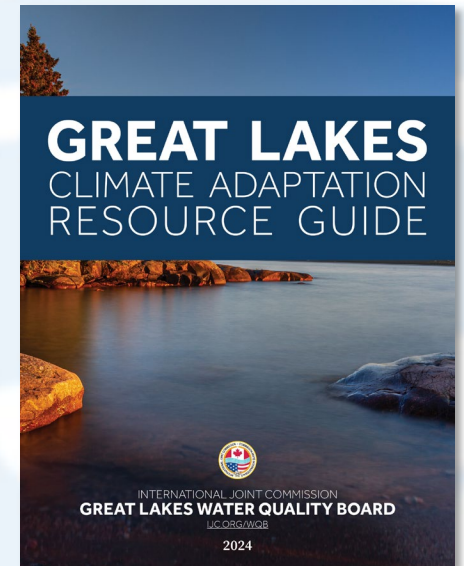
- **Create a collection** of adaptation and resilience strategies, tools, approaches and implementation actions
- **Engage and consult end users** to identify resources, successes
- Create **peer-to-peer network opportunities** to connect practitioners and funding sources



Project Accomplishments



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Value of the Resource Guide



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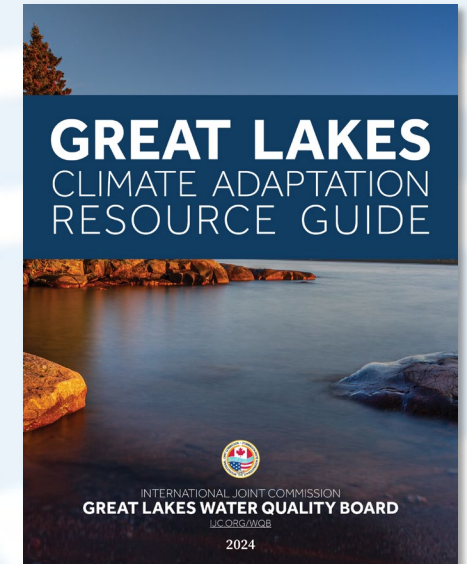
“Valuable resource for communities, will help our efforts not start at ‘square one’”

“Section dedicated to Action.” “Immediate actionable items.”

“Funding sources and case studies.”

“Framework for a process that’s tied to the tools”

“A non-linear way into understanding what can or should be done. **Not a cookbook but a set of guides and insights.**”



Steps Toward Resilience



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**U.S. Climate
Resilience Toolkit**



I. Guide: Simplified Framework



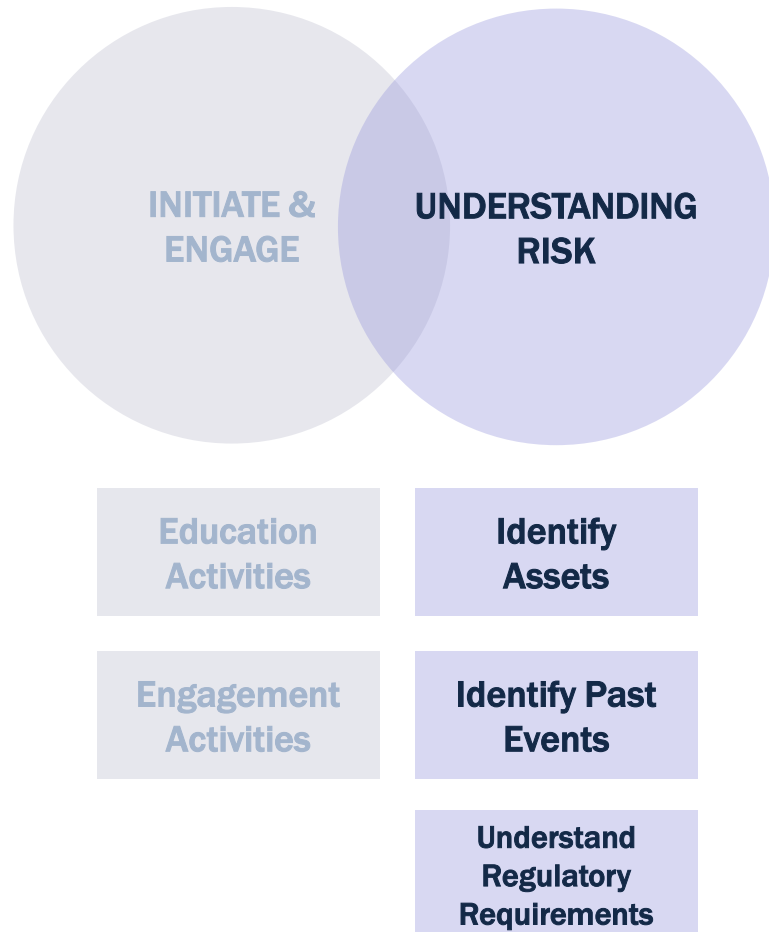
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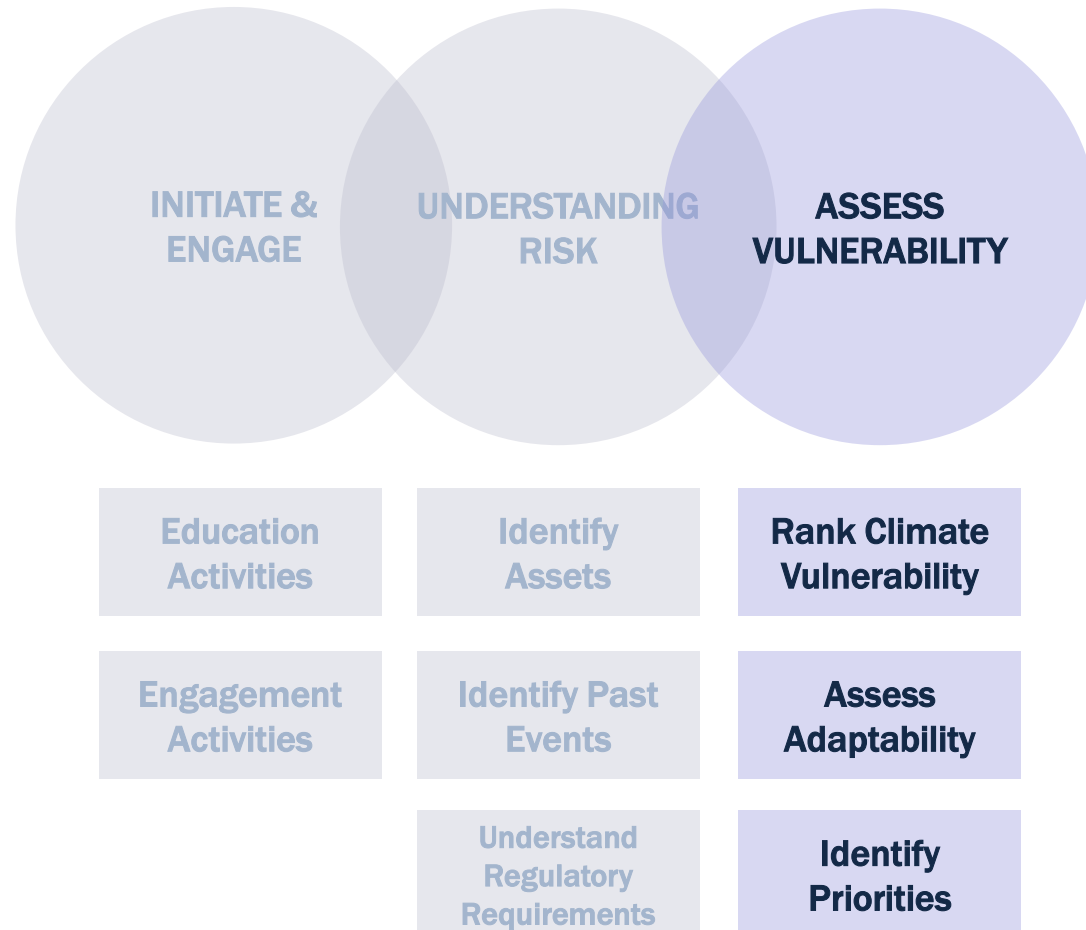
I. Guide: Simplified Framework





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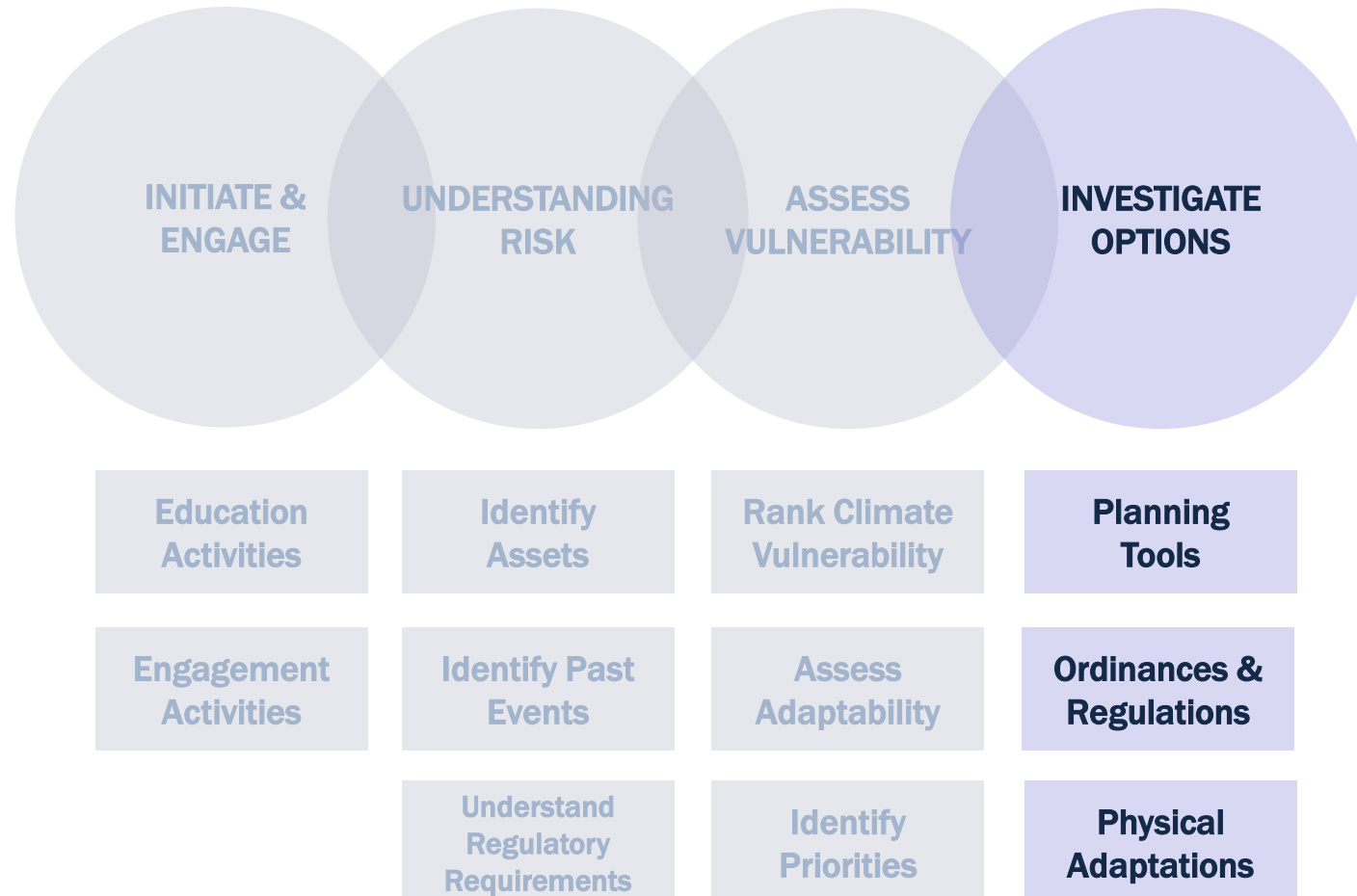
I. Guide: Simplified Framework





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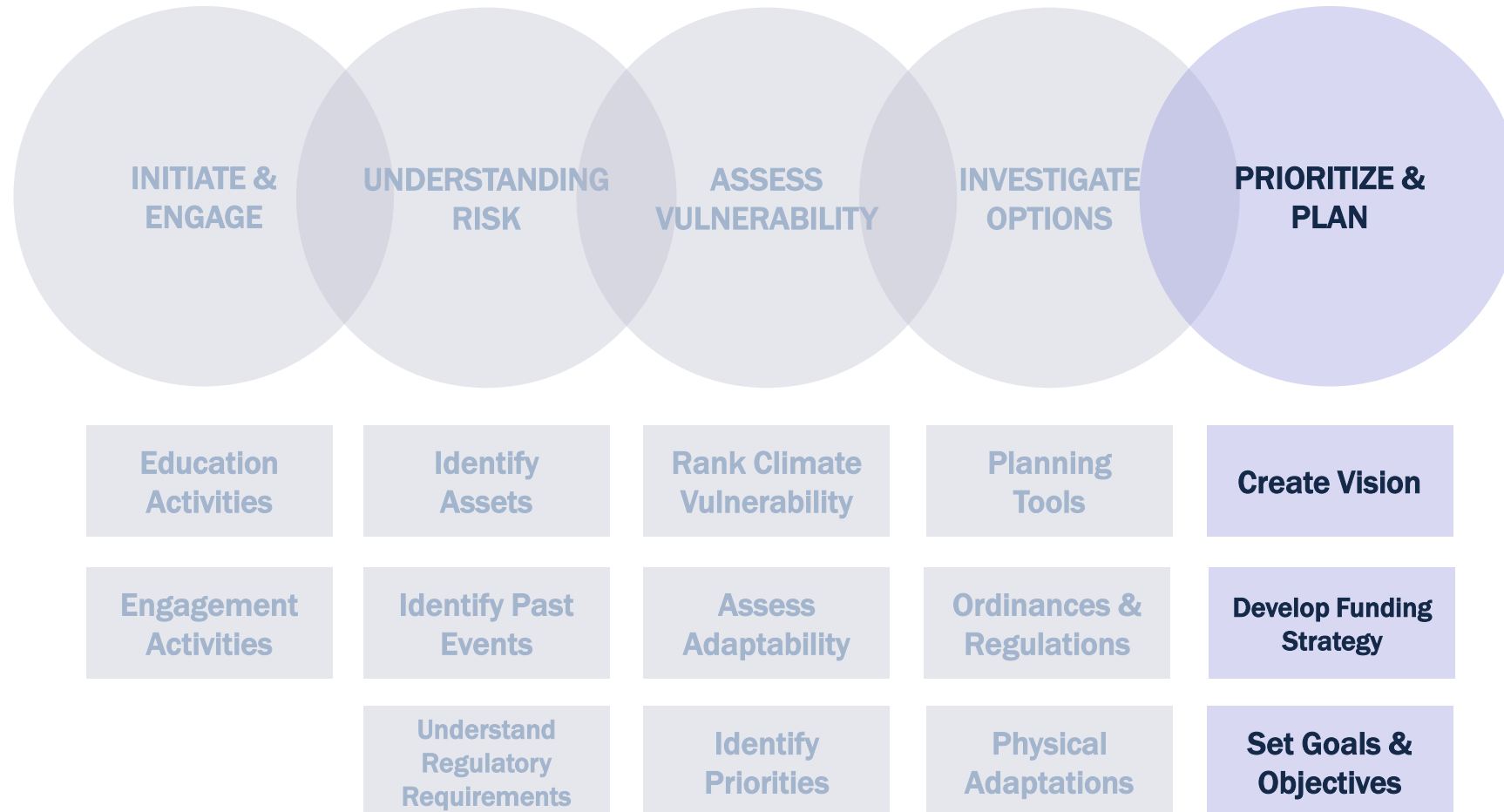
I. Guide: Simplified Framework





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I. Guide: Simplified Framework

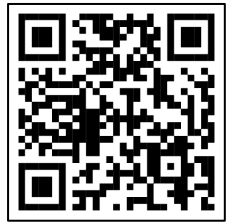




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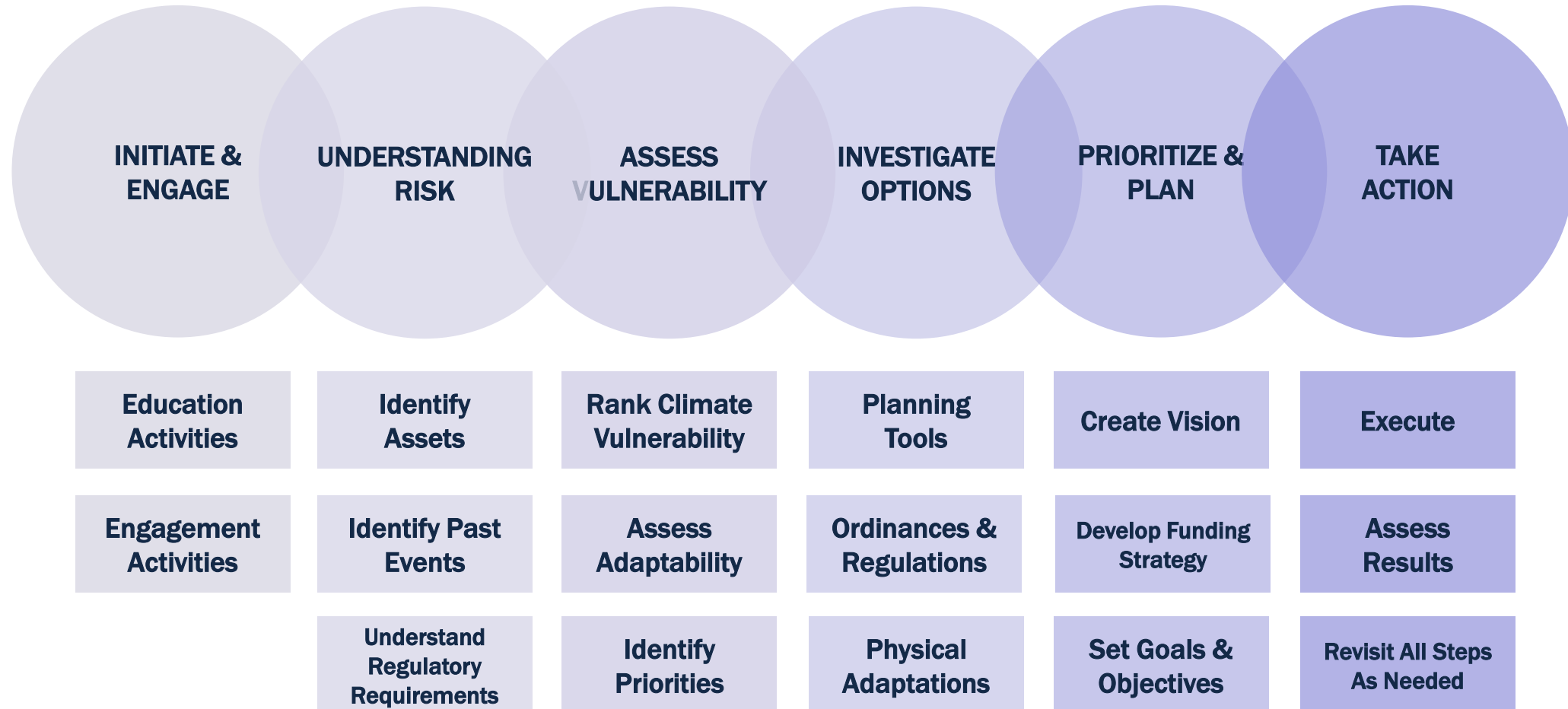
I. Guide: Simplified Framework





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I. Guide: Simplified Framework





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II. Resources: Tools, Cases, Examples

RESOURCE LEGEND

TYPE OF TOOL



Data tool



Tool Helpers (guides, training)



Case Studies



Decision-maker Support Tools



Economic Tools



Funding (including grant writing)



Technical Support

GEOGRAPHY (COLOR CODE)



United States (US)



US Indigenous



Canada (CA)



CA Indigenous



Any Geography

- Nearly 100 tools
- Organized by the six framework steps
- Icons for type of tool
- Color-coded by geography

II. Resources

1. INITIATE AND ENGAGE

1.1 GLISA GREAT LAKES FACT SHEET



GLISA (Great Lakes Integrated Sciences and Assessments) has developed extensive information on climate change effects in the Great Lakes region. Their two-page fact sheet provides a thorough overview of the climate changes affecting the Great Lakes region.

STRATEGY:	Education
TYPE OF TOOL:	Tool Helper (Fact Sheet)
HAZARD(S) ADDRESSED:	Algal Blooms; Droughts; Erosion; Extreme Weather; Flooding; Frost; Lake Level Fluctuation; Rainfall; Snow, Ice Cover & Lake Temperature; Temperature; Water Availability
GEOGRAPHIC SCALE:	Regional
COST TO USE:	Free
MORE INFORMATION:	GLISA (originally the Great Lakes Integrated Sciences and Assessments) is one of 12 Climate Adaptation Partnerships (CAP, formerly known as the Regional Integrated Sciences and Assessments or RISA) supported by the National Oceanic and Atmospheric Administration (NOAA).
LINK	glisa.umich.edu/wp-content/uploads/2021/04/GLISA-2-Page.pdf

RESOURCE LEGEND

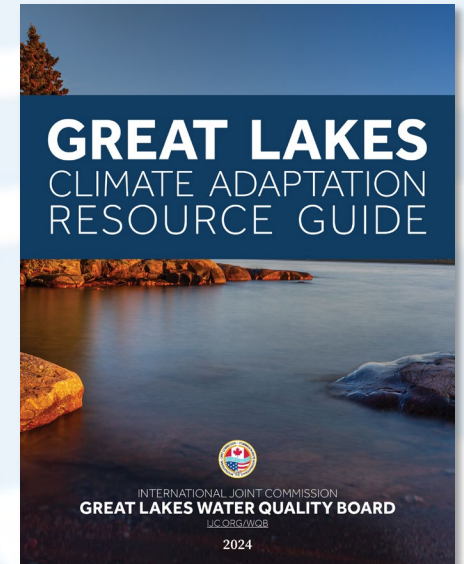
TYPE OF TOOL	GEOGRAPHY (COLOR CODE)
Data tool	United States (US)
Tool Helpers (guides, training)	US Indigenous
Case Studies	Canada (CA)
Decision-maker Support Tools	CA Indigenous
Economic Tools	Any Geography
Funding (including grant writing)	
Technical Support	

Reflections



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- + Navigate an abundance of resources
- Static document
- Gaps in content
- + Facilitate network opportunities

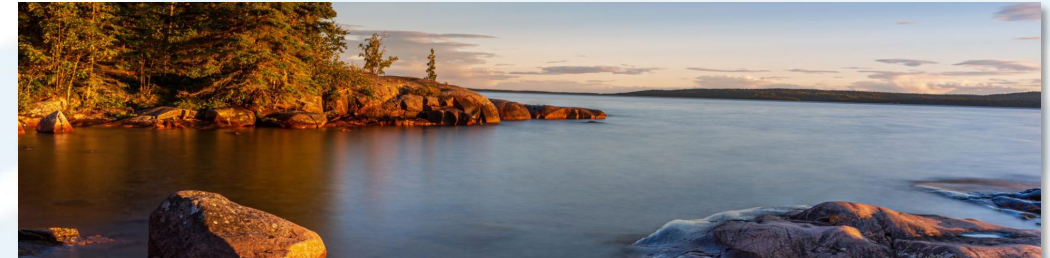


Reflections and Future Goals



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- + Navigate an abundance of resources
 - Static document
 - Gaps in content
- + Facilitate network opportunities
 - Use case feedback to show impact
 - Toward a living document
 - Invite collaborators



Great Lakes Climate Adaptation Resource Guide



September 11, 2025

The IJC's Great Lakes Water Quality Board created this [Great Lakes Climate Adaptation Resource Guide](#) with materials to help small and medium-sized Great Lakes communities integrate Great Lakes water topics into their climate adaptation and resilience strategies. The resource guide is intended to help Great Lakes communities use a common framework to create their own climate change adaptation and resilience strategies. The guide lists tools, strategies, materials, and training resources.

A brief overview of the project is available in this [one-pager document](#).

The board is hosting a **one-hour public webinar** about the resource guide at **12 p.m. (ET) Tuesday, September 23, 2025**. Advanced registration is required for this free public webinar via bit.ly/WQB-Great-Lakes-Adaptation-Guide-Webinar or https://us06web.zoom.us/webinar/register/WN_7STHYuBERU2WQA5Yxhh8NQ.

If you use (or intend to use) the resource guide, please let us know via this short feedback form.



Q and A

- Please use the Zoom Q&A function



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Great Lakes Resiliency



Realizing Resilience: Coordinating efforts from across the Great Lakes basin (Webinar 3 of 3)



Details

This is the final webinar of a three-part series from the Great Lakes Commission (GLC): *Realizing Resilience: Coordinating efforts from across the Great Lakes basin*. The webinar series is offered in advance of the [Midwest Climate Resilience Conference](#), scheduled for October 20-22 in Milwaukee, Wisconsin.

In this webinar, participants will hear from agencies and organizations that participate with the GLC's [Standing Committee on Climate Resilience](#) and operate across the basin. An audience Q&A will follow the presentations.

Webinar speakers will share examples of resilience implementation efforts throughout the region, referring to the goals of the [Action Plan for a Resilient Great Lakes Basin](#). This Action Plan helps to prioritize basin-wide efforts and forms a roadmap to advance climate resilience in the region. We're thrilled to welcome the following agencies/organizations and speakers:

- [Great Lakes-St. Lawrence Legislative Caucus](#)
 - Senator Laura Ellman, Illinois State Senator
- [Detroit Wayne County Port Authority](#) and [American Great Lakes Ports Association](#)
 - Mark Shrupp, Executive Director
 - Taylor Mitchell, Sustainability Manager
- [International Joint Commission Great Lakes Regional Office](#)
 - Raj Bejankiwar, Physical Scientist
 - Mark Burrows, Acting Director

GLC is presenting this three-part webinar series to help achieve a common baseline understanding of Great Lakes resilience efforts prior to the conference.

Details

- 📅 Tue, Sep 23
- 🕒 3:00 PM - 4:00 PM EDT
- 📍 Online event

Register

Today @ 3

Great Lakes Commission

Realizing Resilience Webinar part 3





Thank You

For other questions,
please email:

mark.burrows@ijc.org

[research.net/r/WQB-
webinar-feedback-9-23](https://research.net/r/WQB-webinar-feedback-9-23)



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