U.S. Geological Survey's Midwest Climate Adaptation Science Center 2022 Annual Report Highlights

YEAR 1: BUILDING THE MIDWEST CASC COMMUNITY

About Us

Our mission is to provide science to help fish, wildlife, water, land, and people adapt to a changing climate.

Launched in September 2021, the Midwest Climate Adaptation Science Center (MW CASC) is a partnership between the U.S. Geological Survey (USGS) and a consortium of institutions throughout the region, including the University of Minnesota (host); University of Wisconsin-Madison; Michigan State University; University of Illinois Urbana-Champaign; Indiana University; College of Menominee Nation; Great Lakes Indian Fish and Wildlife Commission; and The Nature Conservancy.

The MW CASC is part of the national USGS Climate Adaptation Science Center network.

In Year 1, we worked to establish the processes by which we will execute our mission and main objectives: **partnerships, capacity building, science, and communications.**

8 Consortium Member Institutions
12 Advisory Committee Members
16 Leadership Team Members



A Visit From Secretary Haaland

In May 2022, US Secretary of the Interior Deb Haaland visited the University of Minnesota to celebrate the launch of the MW CASC and discuss the importance of Indigenous knowledge in climate adaptation research. She was joined by several state and university leaders.



The MW CASC is developing science that can be directly applied to climate adaptation decisions, and we can only accomplish that through close, respectful engagement with partners. Guidance from our Advisory Committee, made up of resource managers and experts in the region, ensures our work is relevant to needs in the Midwest.

In Year 1, we focused on establishing our community, building working partnerships, and fostering trust both internally and externally.







Capacity Building

The MW CASC facilitates capacity building activities for students, stakeholders, and academic

leaders. In these activities, we emphasize the full adaptation cycle and the importance of cultural and social values, including cultural sensitivity, knowledge co-production, and environmental justice.

In Year 1, we engaged approximately **60** graduate students and postdoctoral fellows. College of Menominee Nation also hosted the first cohort of participants in our Tribal Research Experience for Undergraduates (REU).



Manoomin Knowledge Exchange Workshop

A MW CASC-funded project led by Dan Larkin, University of Minnesota, is investigating the impacts of climate change on vegetation, ecohydrology, and management of manoomin (wild rice) watersheds. Project partners gathered for a knowledge exchange workshop on the Lac du Flambeau reservation in August 2022. Participants included community members, staff, and researchers from several partner organizations. Hands-on demonstrations included sediment coring, aquatic plant identification, hydrological monitoring, carving knocking sticks, and preparing deer hides.



Our First Annual Gathering

100+ members of the MW CASC community gathered in person for the first time in August 2022 at the University of Wisconsin-Madison. We used this time together to focus our goals and activities, share research, and strengthen relationships across our network.



Actionable Science

In 2022, the MW CASC worked with **27 active projects** producing

climate adaptation science relevant to key management challenges in the region:

- Heavy precipitation events and drought
- Loss of winter
- Altered hydrological regimes
- Novel terrestrial ecosystems
- Barriers to and opportunities for adaptation

Learn more at <u>CASCProjects.org</u>

Project Theme Count

8 Fish
2 Forests
2 Hydrology
1 Lakes
2 Wetlands

2 Non-Local Beings 2 Planning 2 Societal 6 Wildlife







Communications & Outreach

In Year 1, the MW CASC established several key communication platforms, including monthly science seminars; a newsletter; Twitter, LinkedIn, and Youtube channels; and two temporary mini websites as we developed our full website.

We built a cohesive identity through branding that conveys collaboration, shared values, regional relevance, and science-to-action.

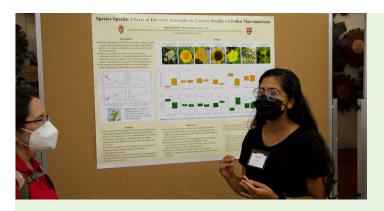
340+ Twitter Followers
600+ Newsletter Subscribers



Assistant Secretary Trujillo Tours MW CASC Project

In August 2022, US Department of Interior Assistant Secretary for Water and Science Tanya Trujillo and USGS Associate Director for Natural Hazards Dave Applegate visited the site of a MW CASC-funded project in Duluth, Minn.

The project, called "Climate, Storms, and the Drivers of Cyanobacteria Blooms in Lake Superior," investigates the climate threat posed by Harmful Algal Blooms (HABs) to Lake Superior.



Monthly Science Seminars

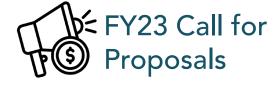
In January 2022, the MW CASC began hosting virtual Science Seminars as a space to introduce our network, highlight key aspects of our work, and share ways to get involved. We hosted a total of 8 seminars in 2022 and engaged hundreds of attendees from throughout the region.



In Year 1, the MW CASC hired a Program Manager, Elissa Welch, and Communications Manager, Jess Del Fiacco, to serve as dedicated administrative staff.

MW CASC leads Olivia LeDee, Sara Smith, and Heidi Roop joined the authors team of the Midwest Chapter of the <u>Fifth National Climate</u> Assessment.

Midwest Tribal Resilience Liaison Sara Smith was honored with the <u>Minnesota Climate Adaptation</u>
Partnership Individual Adaptation Award.



The MW CASC **received 46 statements of interest** in response to our FY23 call for proposals in June, requesting nearly \$16 million. Eleven were invited to submit full proposals, with selection decisions to be made in 2023.

Submissions were received from universities (29), the USGS (14), NGOs (2), and a Tribal agency (1).





