

2021 CATF Year-End Report



Membership and Organizational Summary

- Dwight Brady & Jenn Hill were selected to join CATF by the Membership Committee.
- Zoom meetings continued through 2021 as a Covid-19 precaution.
- Bylaws Committee formed to draft bylaws for CATF which were unanimously approved.
- Unlimited 3 year membership terms enacted to maintain active participation.
- CATF unanimously approved an update to its mission statement which reads:

"Our mission is to help prepare local leaders and Marquette County stakeholders to develop mitigation and adaptation strategies that will make the Upper Peninsula more resilient and effective when dealing with the consequences of climate change and extreme weather events."

2021 CATF Members:

- | | | |
|----------------------|-----------------|-----------------|
| • Karen Alholm | • Bob Kulisheck | • Dave Stensaas |
| • Dwight Brady | • Emily Leach | • Ryan Stock |
| • Zosia Eppensteiner | • Jerry Messana | • Jes Thompson |
| • Scott Erbisch | • Brad Neumann | • Tom Tourville |
| • Martha Gerig | • Tyler Penrod | |
| • Jenn Hill | • Greg Seppanen | |

2021 Steering Committee Members:

- | | | |
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| • Zosia Eppensteiner | • Emily Leach – Chair | • Greg Seppanen |
| • Scott Erbisch | • Brad Neumann | • Jes Thompson |
| • Bob Kulisheck | • Tyler Penrod – Coordinator | |

2021 Membership Committee Members:

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| • Emily Leach | • Brad Neumann | • Jes Thompson |
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2021 CATF Supported Accomplishments Overview

- City of Marquette adopted a Climate Resolution declaring a climate emergency
- City of Marquette committed to carbon neutrality by 2050
- Inaugural Community Foundation of Marquette County Clean Energy Grant Cycle
- Marquette County 2040 Master Plan adopted
- Marquette County Interactive Hazard Mitigation Map published
- Michigan State University Extension released "Planning and Zoning for Solar Energy Systems"
- Marquette Area Climate and Health Adaptation Project successfully implemented projects in the City of Negaunee and Marquette Township
- Michigan State University Extension & Sea Grant hosted webinars on environment and climate
- Northern Climate Network hosted 10 hybrid Climate@Noon presentations
- Northern Michigan University committed to carbon neutrality by 2050
- Northern Michigan University SHINE launched
- Superior Watershed Partnership's Great Lakes Climate Corps had a successful 2021 season
- Superior Watershed Partnership launched the 100,000 Tree Initiative
- Superior Watershed Partnership expanded the Community Buoy Program

2021 Project Summaries

5 Lakes Energy

5 Lakes Energy is a Michigan-based policy consulting firm dedicated to advancing policies and programs that promote clean energy and sound water policy for a resilient environment. Jenn Hill offered to contribute 8 of her working hours each month to CATF as part of the firm's Certified B Corporation designation. CATF identified the need for a data and grant opportunities resource targeting climate health overlaps. Her work will be shared on the CATF website to distribute the information to a broad local and regional stakeholder audience.

5 Lakes Energy Website: <https://5lakesenergy.com/>

City of Marquette Climate Resolution

CATF members Ryan Stock and Tyler Penrod collaborated with NMU students to draft a climate resolution for the Marquette City Commission to consider for adoption. The draft was revised, workshopped, and adopted by the Marquette City Commission unanimously. After declaring a climate emergency, the resolution goes on to address climate change adaptation and mitigation by committing to eliminate the City's greenhouse gas emissions by 2050, develop a Climate Action Work Plan, update the current Climate Adaptation Plan during the upcoming Master Plan update, and seek funding to implement these plans and commitments. In addition to the Climate Resolution, the City of Marquette approved a two year strategic plan (2021-2023) which requires the development of a climate based emergency action plan, sustainable tourism plan, public transportation infrastructure improvement plan, and winter city planning which will help lead Marquette toward a climate resilient future.

Climate Resolution: <https://superiorwatersheds.org/wp-content/uploads/2021/07/City-of-Marquette-Climate-Resolution.pdf>

Community Foundation of Marquette County (CFMC)

Community Foundation funding was prioritized to assist Marquette County residents and businesses weather the Covid-19 pandemic. Despite the pandemic, CFMC continued offering over \$185,000 in scholarships to 71 Marquette County students, was the fiscal agent to replace all AEDs for the Marquette County Law Enforcement Administrators Association, and is raising funds for the Kids Cove 2 "Playground for All." In 2021 CFMC distributed a total of over 1 million in grants and scholarships. CFMC supported local environmental and climate work in 2021 by awarding Lake Superior Hospice \$5,000 from the Range Bank Clean Energy Fund to improve insulation to reduce energy use and bills while extending the Community Environmental Monitoring Program (CEMP) work plan agreement through 2025 in cooperation with Eagle Mine, Keweenaw Bay Indian Community, & Superior Watershed Partnership.

CFMC Clean Energy Fund: <https://cfofmc.org/2021/06/25/clean-energy/>

CEMP Website: <https://swpcemp.org/>

EcoReps

EcoReps is a student sustainability peer-to-peer education program designed to give students the resources and knowledge to solve environmental, economic and social sustainability issues. EcoReps participated in Sustainability Week, hosted skill builder workshops, supported campus

sustainability initiatives, and funded Green Fund projects aimed to make NMU a more sustainable campus. Project submissions ranged widely from student awareness programs and behavior-changing campaigns to infrastructure upgrades and installations.

EcoReps Website: <https://nmu.edu/sustainablenu/ecoreps>

EcoReps Facebook: <https://www.facebook.com/NMUEcoReps/>

Marquette County 2040 Master Plan

Marquette County's 2040 Master Plan was adopted first by the Planning Commission and finally the County Board in 2021. An interactive data dashboard was developed as a public tool for future planning activities providing insights on housing, employment, and demographics specific to each of Marquette County's four regions. The dashboard will be updated as new data is made available. The Marquette County Planning Department will guide the rest of County government on implementation of the Master Plan, including the section on climate.

Master Plan Website: <https://www.mqtcoplan.org/>

Marquette County Hazard Mitigation Plan

Marquette County's Hazard Mitigation Plan was updated in 2020 with participation from municipalities and county wide stakeholders including CATF. It was adopted by FEMA in January 2021 opening the doors to FEMA grant funding for local units of government to implement hazard mitigation projects. The 5-year update includes the creation of a web-based interactive hazards map and other resources that are available on the Marquette County Planning website.

Hazard Mitigation Website: <https://www.mqtcoplan.org/copy-of-hazard-mitigation-plan>

Marquette County Health Department (MCHD) Covid-19 Response

The Marquette County Health Department continued to address the Covid-19 pandemic in 2021 as new variants emerged and as vaccines and treatments became available. Through a continuous effort the MCHD led the community through administration and community education of testing logistics, vaccine distribution logistics, administered quarantine locations for vulnerable populations, and communicated mitigation strategies to manage and reduce transmission of the virus. Their website continues to provide information and guidance for individuals, schools and businesses including state and local pandemic data, vaccination and testing locations, and other resources for the community.

MCHD Covid-19 Resources:

https://www.co.marquette.mi.us/departments/health_department/covid_19.php

Michigan State University (MSU) Extension

Brad Neumann, in partnership with other experts at MSU and the University of Michigan, wrote and released *Planning & Zoning for Solar Energy Systems: A Guide for Michigan Local Governments*. This resource will help Michigan communities meet the challenge of becoming solar-ready by offering best practice guidance for addressing solar energy systems within their planning policies and zoning regulations. Stakeholder and government engagement is ongoing.

Guide Website: <http://extension.msu.edu/solarzoning>

The Marquette Area Climate and Health Adaptation Project (MACHAP) pilot program to build adaptive capacity at the local level by integrating public health considerations into existing

community and climate adaptation planning was successfully implemented in the City of Negaunee and Marquette Township. A series of workshops involving stakeholders in each community created three guidebooks to address climate and health adaptation priorities. City of Negaunee and Marquette Township successfully received implementation funding from MDHHS for climate adaptation projects. Master gardeners and other volunteers followed through on a MACHAP plan at Pete's Pass that included planting native plants and laying gravel on the snowmobile trail to stabilize the site's sandy soil thanks to \$5,000 in funding. The City of Negaunee will use its MDHHS funding to plant numerous trees along the east shore of Teal Lake to help shade and cool nearshore waters, while slowing and filtering runoff from area roadways before entering the lake.

MACHAP Resources: https://www.canr.msu.edu/climate-change/educational_materials

Matha Gerig is investigating Manistique shoreline erosion as a coastal drone citizen scientist through the CoPe project. She is working to translate the collected data into digestible language for the public. She's working to develop an interactive map and storyboard for the public with the help of CATF partners.

MSU Extension & Michigan Sea Grant hosted the virtual four-part Upper Peninsula Spring Seminar Series. Presentations featured experts in the fields of lake-effect snow modeling, UP tourism, PFAS contamination, and sustainable agriculture. Additionally, MSU hosted a six-part Resiliency Planning Webinar Series in collaboration with MSU Extension Government & Community Vitality Team, the MSU School of Planning, Design and Construction, and the MSU Center for Community and Economic Development.

View the Resiliency Planning Webinar Series: <https://youtu.be/ZMLdQv08w5Q>

Brad Neumann serves as a member of the Michigan Association of Planning - Government Relations Committee and is drafting a set of climate change adaptation and mitigation policies for Michigan communities to supplement the American Planning Association's (APA) Climate Change Policy Guide.

APA Climate Change Policy Guide: <https://www.planning.org/publications/document/9210766/>

Northern Climate Network (NCN)

Northern Climate Network created a new website and YouTube channel to better promote Climate@Noon events and broaden their reach. NCN hosted 10 Climate@Noon events in 2021 utilizing a hybrid (virtual and in-person) format opening the door for presenters with national and international perspectives with local relevance. Presentation topics included local food systems, UN sustainability development goals, indigenous food sovereignty, environmental justice, and more. NCN also hosted a United Nations Sustainability Seminar to offer an opportunity for students to receive a UN Sustainability Certificate for their participation.

NCN Website: <https://nmu.edu/northernclimatenetwork/>

NCN Facebook: <https://www.facebook.com/groups/188899098115459/>

NCN YouTube Channel: <https://www.youtube.com/channel/UCES8i7AnzWqL8yd2TVs5wnw>

Northern Michigan University (NMU)

CATF member Ryan Stock gathered 1,000+ signatures from individuals and support from 25+ organizations and institutions including CATF asking NMU to consider committing to carbon neutrality. NMU responded by committing to carbon neutrality by 2050 and created the Carbon

Neutrality Task Force which includes CATF member Jes Thompson. The Carbon Neutrality Task Force meets weekly and is in the beginning stages planning and creating measurable and achievable goals. The process to achieving carbon neutrality will engage students, student groups, faculty, and staff.

In the News: <https://thenorthwindonline.com/3886857/opinion/open-letter-nmu-commit-to-carbon-neutrality/>

In the News: https://www.ehextra.com/opinion/nmu-ahead-of-curve-on-key-issue-of-carbon-neutrality/article_aec9afe8-1a1e-5a2d-80be-114269d0d5b7.html

Divestment Club formed at NMU to engage NMU administrators and encourage the Board of Directors to divest the University's endowment from fossil fuel companies and other major polluters. The group has met with NMU's VP of Finance Gavin Leach and is poised to continue making headway in 2022.

Divestment Club Instagram: https://www.instagram.com/divest_nmu/

In the News: <https://thenorthwindonline.com/3890725/entertainment/student-led-petition-aims-to-divest-nmu-from-fossil-fuels/>

Superior Watershed Partnership (SWP)

The GLCC program rebranded in 2021 from the Great Lakes Conservation Corps to the Great Lakes Climate Corps to demonstrate that the focus of their work is on climate mitigation and resilience. GLCC will continue to build upon its 20 year legacy with a continued and strengthened focus on climate change projects. GLCC deployed 9 crews in 2021 employing nearly 40 seasonal staff to accomplish a variety of conservation, restoration, and recreation projects in the Lake Superior, Michigan, and Huron watersheds. 2021 deliverables include 5,455 trees planted, 18,736 native plugs planted, over 1,100 acres of habitat improved, over 152 tons of waste collected and recycled, 97 miles of trail build or maintained, 24 erosion sites addressed, 51 locations monitored for environmental quality, and 8 e-waste and volunteer events hosted. The crews followed Covid-19 protocols to avoid any confirmed cases for the second consecutive field season.

GLCC Website & Video: <https://superiorwatersheds.org/projects/great-lakes-conservation-corps>

GLCC absorbed the former Energy Conservation Corps program which employs four year-round energy technicians who work with thousands of low-income Upper Peninsula clients annually. These GLCC energy technicians provide home energy assessments and weatherization services to hundreds of U.P. residents and installed solar for six households in 2021 all free of charge to lower energy consumption and bills. With Covid-19 infection rates high in the Upper Peninsula for much of 2021, energy technicians performed virtual assessments when entering private residences wasn't safe and SWP's MEAP program continued to provide emergency utility bill assistance during this time of struggle for so many families.

SWP Energy Program Website: <https://superiorwatersheds.org/energy-conservation>

SWP launched the 100,000 tree initiative in 2021 aimed at reforesting degraded areas of the Upper Peninsula while improving wildlife habitat and acting on climate change. This initiative began with the distribution of free trees to community members and groups and will continue over the next few years to engage the community on increasing tree abundance and diversity in the places they love.

Great Lakes Observing System (GLOS) awarded SWP funding to upgrade and expand its Community Buoy Program which broadcasts wave and temperature data in real time. Data from these buoys are used to inform boaters in Marquette, Munising, and Grand Marais of current maritime conditions and data is utilized for international climate research. This funding will also allow SWP to upgrade their solar and wind power generation systems for the climate instruments located at Stannard Rock Lighthouse – International Climate Research Station.

Link to Video: <https://youtu.be/zXXILzVAMmA>

SWP expanded its solar energy K-12 curriculum using portable solar demonstration units provided with funding from the United Way. Two demonstration units were gifted to local area schools and another was retained by SWP to take on the road for future solar demonstrations.

With Lakeshore Boulevard now relocated 300 feet back from Lake Superior, planning is underway to restore the dune swale coastal ecosystem and provide public access to one mile of living shoreline which is currently impeded by piles of rock and concrete debris. SWP and the City of Marquette will continue work on this project beginning in the spring of 2022.

Lakeshore Boulevard Website: <https://www.marquettemi.gov/lakeshore/>

Sustainability Hub for Innovation & Environment (SHINE) at NMU

NMU Sustainability Hub for Innovation & Environment (SHINE) launched in 2021 to serve and advance sustainability within the NMU campus and throughout the community through the embodiment of two of NMU's core values: Innovation and the Environment. Services are free to local businesses. SHINE serves as an incubator for sustainable local business development while promoting NMU sustainability initiatives, fostering student opportunities, and providing actionable insight based on sound research.

SHINE Website: <https://nmu.edu/shine/>

UP Energy Task Force (UPETF)

The final report featuring recommendations on propane and energy supply were submitted to Michigan Governor Gretchen Whitmer completing the UPETF's assigned duties which included assessing the UP's energy needs and how they're currently met, formulating alternative solutions for meeting the UP's energy needs, and identifying potential disruptions to UP energy supply and subsequent environmental and economic impacts. CATF members including Jenn Hill and Superior Watershed Partnership's Tonya Swenor were appointed to the UPETF by the governor and were instrumental in the final report's development.

UPETF Website: https://www.michigan.gov/egle/0,9429,7-135-3306_88771_93973---.00.html