

MARQUETTE 2049 LEARNING CIRCLE SERIES



2024

Summary Report



MARQUETTE COUNTY
CLIMATE ADAPTATION
TASK FORCE

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INTRODUCTION



The Marquette County Climate Adaptation Task Force (CATF) hosted a community engagement series for local leaders and Marquette County stakeholders to discuss mitigation and adaptation strategies that will make the Upper Peninsula more resilient when dealing with the consequences of climate change and extreme weather events.

These Learning Circles began with two kickoff events hosted at Northern Michigan University (NMU) in late January 2024. More than 100 people attended the events, including elected officials; nonprofit and non-governmental managers; students; community members; and local, regional, and state authorities. The goal for the kickoff events were two-fold: (1) share information about current climate adaptation and mitigation initiatives in our community, and (2) find out what climate-related issues stakeholders were most concerned about for Marquette County's future.

A long list of concerns emerged from this meeting; everything from agriculture and water quality to natural resources protection and housing (see page 44 of the appendix for the full list). These topics demonstrate the wide range of stakeholder concerns about climate change impacts facing our community. Stakeholder input was organized and synthesized by the CATF Outreach Committee, which became known as the Marquette 2049 Learning Circle Planning Committee. The committee used the stakeholder input to design the format and function of the Learning Circle Series. The goal of the series was to share key resources and facilitate stakeholder conversations about a variety of climate-related topics in a community-wide setting.

In total, there were six Learning Circle events hosted at NMU between May and December of 2024. The topics explored included Food Systems; Trash & Recycling; Healthcare, Housing, Transportation, & Public Services; Economic Development & Diversification; Energy & Power, and Water & Land Use.

TOPIC	DATE	PARTICIPANTS
Food Systems	May 8, 2024	40
Trash & Recycling	June 12, 2024	23

TOPIC	DATE	PARTICIPANTS
Healthcare, Housing, Transportation, & Public Services	September 11, 2024	56
Economic Development & Diversification	October 9, 2024	41
Energy & Power	November 6, 2024	33
Water & Land Use	December 4, 2024	37

OVERVIEW



The primary goal of the Marquette 2049 Learning Circle Series was to gather stakeholders from across the county to learn about their climate change-related concerns, discuss issues related to the most prevalent concerns, share resources, and build the CATF network to extend its reach.

These Learning Circles brought community members together, shared resources, and connected individuals, organizations, and our community to resources that will help in future planning and preparation for climate change.

Throughout the course of the Learning Circles, despite the variation in topics discussed, similar themes emerged. Participants shared an overall desire to work at ensuring our economy and systematic practices (whether food, transportation, energy, housing, etc.) are independent from a larger national or global system. Several stakeholders asked how can we create a local and regional supply chain to help retain independence amidst shortages in food, energy, water, and more. Governance over such efforts must include communication, collaboration, education, and community input.

Although the Learning Circles series has wrapped-up, the conversations have not ended. After each Learning Circle, detailed summaries of table conversations were compiled and published on the CATF website. The Marquette 2049 planning team worked to ensure that the information gathered throughout the Learning Circles was shared and used in other arenas (e.g., grant applications, conversations guiding governance, policy, and other local climate action planning efforts).

As CATF moves forward, it is necessary to continue gathering community input, getting a variety of perspectives, and sharing educational information about the work being done across our County.

FOOD SYSTEMS

May 8, 2024



Climate change will continue to impact agriculture sending shocks throughout the food system and revealing vulnerabilities to food access and security. The Upper Peninsula seems particularly vulnerable with relatively little food production compared to other regions, and our geographic isolation from primary areas of food production. Primary concerns include access to and availability of food, as well as economic losses due to climate change impacts that harm regional food exports that do exist and result in even greater reliance on food imports from other regions. How might our community develop a more resilient food system with greater food security amidst impacts of climate change?

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [Community Food Systems](#)
- [Climate Change Impacts on MI Agriculture](#)
- [Michigan Good Food Charter](#)

THE IDEAL VISION FOR OUR REGIONAL FOOD SYSTEM FUTURE

Participants shared their ideal vision for a local food system future (the next 10-25 years), with a shared focus on creating thriving farms that boost production while providing easier access to diverse, healthy foods without depleting land resources. These visions emphasized sustainable growth by protecting current mid-sized farms, preserving farmland, improving soil quality, and supporting regenerative agricultural practices. Key themes included:

Exploration of Non-Traditional Food Production: Supporting methods such as indoor growing, aquaculture, foraging, and container gardening. Emphasizing resilient growing techniques like hydroponics, season extension, and advanced technology to reduce fossil fuel dependency and ensure food storage and USDA processing facilities.

Regional Distribution Network: Establishing a regional commercial co-op or corporate distributor to wholesale locally-grown foods; consider mimicking historical models like the Cohodas Bros. cold storage warehouse in Ishpeming. This network would

strengthen regional food system integration, creating demand and supporting local growers. The less miles food travels, the better.

Midwest Connections and Unified Vision: Strengthening ties across the Midwest to develop a unified purpose and organizational structures for long-term sustainability; building cohesive relationships among food systems workers, communities, and institutions, such as farm-to-school programs.

Education and Engagement: Engaging children and families through educational initiatives like school, community, and neighborhood gardens. Promoting cooking, healthy eating, and the concept of food as medicine. Specific ideas included highlighting seasonal foods in farm-to-table restaurants and involving youth in agriculture and food production.

Value-Added Processing: Providing facilities for farmers to preserve, freeze, and dry crops to ensure year-round availability.

Policy Support and Cultural Shift: Implementing policies to support urban gardening, converting underutilized properties for agriculture, and fostering a cultural shift towards local and wild foods. Normalize native ecosystem farming that empowers individuals to grow their own food (bees, chickens, etc.).

Extended Growing Seasons and Food Recovery: Educating farmers on extended growing seasons and teaching families about food growing and preparation. Increasing community and neighborhood gardens, and developing food recovery systems to minimize waste.

Living Wage and Agricultural Tourism: Ensuring farmers earn a living wage and exploring agricultural tourism opportunities to further support the local food system.

The participants shared visions of the future that collectively aim to balance natural ecosystems with agricultural needs, ensuring sustainable, resilient, and locally-focused food production and distribution systems for decades to come.

FACTORS INFLUENCING OUR FOOD SYSTEM'S FUTURE

Participants explored and explained how our food system, and its resilience to climate change, will be influenced and impacted by several key factors improving simultaneously:

Transportation and Infrastructure: The development of a robust last-mile delivery system and improved distribution networks across the UP and Midwest are critical. Changes in mass transit, such as railways, and the shift from fossil fuels to electric fleets could affect food production costs. Increased property costs and infrastructure adjustments will also play significant roles.

Housing and Population Dynamics: The availability and affordability of housing will influence farming viability. Farmable land might be developed for residential purposes to meet the needs of a shifting population. Rising housing costs and population movements will impact both farming affordability and land availability.

Diet and Food Preferences: Future generations will have different dietary habits and food preferences, necessitating a re-evaluation of what can be grown and raised locally. Focusing on calorie-dense crops and animals will become important.

Economic Challenges: High entry costs and low returns make farming a challenging investment. Rising utility and operational costs, along with limited subsidies and difficulties in accessing funding, exacerbate this issue.

Demographic Shifts: An aging population, potential influx of climate refugees, and increased tourism will heighten food demand. The next generation's prioritization of food, coupled with the need for in-migration and seasonal labor, will influence who grows food.

Land Use and Environmental Concerns: Land use changes, such as mining, contamination, and pollution from large farms, will impact agricultural viability. Water scarcity and quality issues, particularly related to nearby mining and pipelines, are also concerns.

Cultural and Societal Norms: Education and knowledge is key to improving the system. Shifts in societal norms towards prioritizing food production over non-edible landscaping will be essential. Education efforts to change cultural attitudes and build community consensus are crucial.

Implementation of Sustainable Practices: Systems need to be established to make sustainable practices the default, such as providing compost bins, reducing costs, and lowering barriers to implementation. This includes fostering community engagement and integrating diverse viewpoints to support the envisioned future.

Overall, creating a resilient food system future will require addressing these multifaceted challenges through strategic planning, community involvement, and sustainable practices.

NEXT STEPS: HOW DO WE GET TO OUR IDEAL FUTURE?

To work toward a resilient food system future will require a combination of the right policy and partnerships. The following next steps are essential:

Enhanced Communication and Collaboration: Regular meetings among community leaders, municipal staff, private interests, and developers are crucial. Hosting symposiums to engage and educate stakeholders will facilitate wider sharing of insights with policymakers and the public. Foster supportive, inclusive, and solutions-oriented dialogues involving diverse perspectives, including youth and farmers. Promote the good work already happening to motivate others. Encourage students to create podcasts and other media to share success stories. Create tools tailored to various audiences, taking action, and being transparent about current realities will be key to building a resilient food system future.

Securing Funding and Resources: Establishing a central coordinator and building capacity are necessary to actualize the ideal future. Seeking funding and resources is a key step.

Comprehensive Education Programs: Implement educational initiatives for all ages, starting from an early age. This includes integrating local food into school lunch programs, teaching agriculture in schools, and life skills such as cooking and nutrition. Engaging vulnerable populations and providing outreach through institutions like NMU, Michigan State University (MSU) Extension, and Marquette Area Public Schools (MAPS) are vital. We should also explore the use of school cafeteria kitchens for processing crops and enhancing cooking and agriculture programming in schools. Additionally, eco-garden tours, sustainability education, and water conservation discussions should be promoted.

Community Engagement and Neighborhood Governance Models: Encouraging small community and neighborhood groups to expose people to different ways of thinking. Organizing neighborhood garden governance models to facilitate hyper-local conversations, shared resources (e.g., compost sites, seed sharing, tool libraries), and policy development.

Deep Community Building: Creating critical connections through entities like the UP Food Exchange (UPFE) and restarting its policy committee. Integrating efforts with other initiatives, such as growing under solar arrays, will build momentum. Plowshare is the UPFE's newsletter and could be a useful forum for connecting with local farmers. Other organizations are ready to connect (e.g., MSU Extension, UPCAP, Lions Clubs, Partridge Creek Farm, etc.). While farmers are at capacity, maybe our community can develop programming and facilitate/coordinate to expand successes.

Taxing, Zoning and Ordinance Adjustments: Tweaking taxing and zoning laws to support small-scale agriculture and updating planning ordinances to permit urban gardening. Amending the Right to Farm Act to make local zoning for agriculture more flexible for homeowners, small businesses, and small communities is essential.

These steps collectively aim to build a resilient and sustainable local food system through collaboration, education, community engagement, policy support, and effective communication.

TRASH & RECYCLING

June 12, 2024



“[The Story of Stuff](#)” will continue to evolve with local, regional, and statewide pressures over the next 25 years. Garbage and waste management, recycling, and composting are in the beginning stages of a revamped planning process, with the passage of significant amendments to Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451.

Recycling rates in the United States are up for the first time in several years (the national recycling rate is close to 32%). Marquette County is at about 11% counting only in-county materials, the Central UP is closer to 8%, and if you go UP-wide it falls to 2-3%.

Climate change may create demographics and population changes that will open opportunities to get away from the business-as-usual “cradle to grave” approach to trash and recycling and build a circular economy in our region. The Trash & Recycling Learning Circle participants discussed how Marquette County can leverage existing strengths such as its central location, recycling, and composting facilities to reduce pollution and strengthen our workforce and economy.

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [Compost](#)
- [Central UP Recycling](#)
- [Great Lakes Plastic Pollution](#)
- [The Value of Recycling in MI](#)

THE IDEAL VISION FOR TRASH & RECYCLING IN OUR REGION

Participants shared their ideal vision for waste management in the region’s future (the next 10-25 years). In the table discussions, many participants noted the importance of improving education and outreach about materials management and recovery across the region and across multiple generations. The key characteristics of our ideal future include the following:

Sustainable Practices: Many participants noted the importance of a future that has more sustainable practices as part of everyday action, including increasing initiatives to

reduce plastic packaging, promote more reuse of goods, support (curbside and industrial-scale) composting, and transition away from disposable or single-use items as a regular practice, potentially assisted with policy.

Infrastructure and Policy Support: Participants also noted the importance of policies supporting improved waste management, recycling, and composting systems. Beyond policy, there needs to be support for the necessary infrastructure, including the establishment of municipal compost facilities and improved recycling transportation or drop-off networks. Regardless, building institutional and systemic changes are necessary to enhance waste management practices in our region.

Governmental Involvement and Collaboration: The ideal future will include national, state, and local governments driving change through legislation, promoting sustainable practices, and fostering collaboration among many entities for effective waste management solutions.

Behavior Change: Every table recognized the need for a cultural and behavioral shift to actualize a future with widespread responsible waste management. From increased individual and household intentionality to community-level outreach and education to create a more informed and proactive set of norms within our region.

Community Engagement and Education: Related to behavior change, participants were adamant about improved and increased waste management education at all levels. Resources for everything from technical training to homeowner and classroom recycling/compost methods are needed. Additionally, there is a need for community members to understand the true cost of waste and its management.

FACTORS INFLUENCING OUR MATERIAL MANAGEMENT FUTURE

Participants explored and explained how our trash, recycling, and compost systems will be impacted by several key factors over the next 25 years. The factors that are most likely to influence our ideal waste management future include:

Policy and Legislation: Participants emphasized the need for state laws and policies that incentivize reduced consumption and increased recycling. We will need legislative pressure to shift funding and systems to be more sustainable (as the default). We will also need to explore financial incentives (e.g., deposit programs) to promote the robust recycling required for a circular economy.

Community Engagement and Behavior Change: Highlighting the importance of public opinion, behavior change, and education as key factors in achieving sustainable waste management practices, especially focusing on starting young with children and promoting field trips to understand waste disposal processes.

Infrastructure and Logistics: To improve materials management in our region we need to address challenges, like the lack of infrastructure for specialty (or “odd materials”) recycling. Many of the logistical challenges are also tied to the need for efficient and cost-effective transportation of materials. To overcome these challenges we need to better incorporate waste management into city and county master planning activities across the region.

Economic Considerations: Economics play a large role in the viability of our ideal future, both at the local and national levels. If we can create an ideal local/regional closed-loop system then we might simultaneously identify opportunities for new economic development. Recycling innovation could be an entrepreneurial opportunity (e.g., aggregators or intermediaries help to process difficult-to-recycle items).

Social and Cultural Factors: Local attitudes about recycling and composting may shift in the years to come, especially as the population changes. There may be new, or unprecedented influence on waste management policies because of changing political and social dynamics in the region. Recycling rates could also suffer with an increase in poverty and competition to meet basic needs persists. Finally, volunteer burnout can diminish recycling rates (e.g. battery collection).

NEXT STEPS: HOW DO WE ACHIEVE OUR IDEAL FUTURE?

To create systemic change in waste management and sustainability, the following key actions and strategies are proposed:

Education and Demonstration: We need to emphasize the importance of education, particularly through demonstrations, to make a significant impact. We need to support educational initiatives that inform the public about waste disposal and recycling processes. Developing an all-age curriculum and providing real-world learning experiences through field trips (to MRF, Partridge Creek Compost, etc.) can inspire action.

Community Engagement: For real change to happen we need to foster relationships with neighbors and mobilize local networks to model and encourage behavior change within our communities. We can also encourage active participation in the democratic process by filling vacancies on boards and commissions.

Government Outreach and Communication: We need to enhance outreach efforts by local governments to residents. Effective communication about new waste management plans and requirements will improve understanding and action. Likewise, there is an opportunity for better communication between county and local governments to ensure alignment and shared strategies. CUPPAD's new Materials Management Plan is a great example. Let's promote the plan and help to foster a shared vision for our region's future.

Spotlight Current Successes: Leverage the Recycle 906 brand to highlight local and regional waste diversion champions. Partner with organizations like Partridge Creek Compost to promote curbside composting services for businesses and residents. Encourage local stores and restaurants to adopt compostable products and practices and then promote their efforts.

Funding and Incentives: Apply for grants to support and subsidize sustainable behavior shifts. Use grant funding to invest in capacity building and infrastructure development. Advocate for subsidies from organizations like MDARD for curbside recycling collection. Create incentives for current business owners and opportunities for entrepreneurs to improve the waste management sector.

Keep it Neutral: Keep the issue of waste management apolitical and focus on implementing long-term, sustainable solutions rather than short-term fixes.

HEALTHCARE, HOUSING, TRANSPORTATION & SERVICES



September 11, 2024

Climate change may create demographic shifts and population changes that will influence infrastructure and services in our community. The goal of this learning circle was to identify and examine climate-related concerns that might affect transportation (e.g., roads, bridges, EV charging, public transit, etc), housing (e.g., zoning, affordability, unhoused populations, etc.), and public health (e.g., medical facilities, accessibility, illness and vulnerabilities, etc.).

Participants also discussed possible next steps and key organizations to be involved in continuing the conversation about these critical issues. The table conversations focused on building the groundwork for a long-term planning process that will enable Marquette to cope with climate-driven changes affecting public services and related infrastructure.

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [Healthcare](#)
- [Housing](#)
- [Transportation](#)
- [Public Services](#)

WHAT IS OUR IDEAL VISION FOR THE FUTURE?

Social & Cultural Aspects of Our Community: Participants shared a vision for the social and cultural dynamics in our community. By 2049, there would be healthy lifestyles and less severe illness and hospitalizations. More youth and next-generation residents will stay in and buy into the community, along with an engaged and active retired population that leverages their expertise. There would be diverse members of the community living in similar areas. The community overall would support proactive climate resiliency projects. Part of a proactive climate resilience project for example would include growing the local economy so we are less dependent on goods that have traveled long distances.

Sustainable Infrastructure that Supports Healthcare, Transportation, and Housing: Sustainable infrastructure would include electrification and efficiency in homes and

our energy systems. The houses would be built out of sustainable materials. In addition to creating new infrastructure there would be adaptive reuse of existing structures for housing. With the need for more infrastructure in the health care and housing, an expansion of municipal sewer and water. Infrastructure to support public transportation, for example a light rail, would be a part of the ideal vision for the future. In addition there are multiple additions to support a mixed transit system such as electric bike and scooter infrastructure. Transportation services would connect rural communities to the city and will be reliable and timely. This change from car dependent transportation would create cleaner air, impacting public health.

Affordability in Healthcare, Transportation and Housing Services: The ideal vision for the future of Marquette includes affordability across all sectors - housing, transportation, and healthcare. An intergovernmental group could identify key sites to promote developing affordable housing. Since there is a need for more funding to create affordable transportation there could be road funding tied into other initiatives or money refunded from the gas tax. The priority will include being able to attract and retain young professionals, older generations and everyone in between with affordable public services.

High-Density Community: Participants discussed the feasibility of transportation, housing, and impacts on healthcare in a higher-density community. Changes in local zoning laws might permit more efficient use of the land available and potentially create more affordability. Another idea would be utilizing existing infrastructure, and creating mixed-use housing structures. There would be a more diverse community with different community members living in the same area. This has the potential for the neighborly mindset of checking in on each other, with the ability of others to help those in need. This would help decrease sprawl outside of the Marquette area which makes transportation more feasible. With a higher density community, there would be more sidewalks which also increases walkability and bikeability.

WHAT KEY ISSUES MIGHT IMPACT OUR SHARED VISION?

Public Health and Wellbeing: Community members' public health and wellbeing could impact the community's ability to reach our shared vision. Due to climate change there are more public health problems such as vector borne diseases, food shortages, and trauma due to weather events. There needs to be more healthcare specialists in the Upper Peninsula to support the community now, but especially when there is an increase in need for public services due to climate migrants or climate

change impacts. In regards to community planning there is a concern that residents would not be able to discuss their needs from their local community when their health is their main concern. Marquette residents are typically connected to their natural environment, which leads to problems in their mental sanity if they can no longer spend time outside.

Funding: Finding the funding to support our shared vision will be a challenge. There is steep competition for properties as well as rising property taxes and rental rates. Related to roads, there needs to be a change to the gas tax, which currently funds roads in Michigan, but with the focus on EVs and EV funding we need to find a way to fund road infrastructure and maintenance. Finally, communities might find that they are competing for grants and/or business development, and we want to take a county-wide systems view in order to understand how aspects of this issue affect the entire region.

Mind-Set: There are differing mindsets about the future of our community. For example it is currently part of American culture to want a single family home and travel in single-occupancy vehicles. However, some people want more walkable communities and well-funded public transportation. With different generations and leaders promoting a paradigm shift from the dominant cultural mindset, we might see opportunities (and challenges).

Policy & Planning: To create our ideal community there is a need for policy and planning. As previously mentioned there needs to be a balance between increasing housing supply, as well as protecting the natural environment. There is a lack of inter- and intra-state transportation options throughout the country, which would be needed to increase public transportation options and accessibility within the community. In order to create this, there needs to be a high amount of communication and coordination between many different municipalities which can be challenging in the already busy work day. To create a future together there needs to be attentive listening to the community when writing these plans. This can be a challenge if residents do not have the capacity (potentially due to housing, transportation, or public health needs) to give feedback on what they are looking for in their community.

Creating Infrastructure: The current infrastructure within the community could be a barrier to creating a more sustainable future. There is a lack of regional and local infrastructure to support some of these changes such as expanding housing, public health resources, and public transportation. To expand and to adapt to demographic shifts and pressures, we need to figure out how to optimize our infrastructure for shared access to water resources, wastewater treatment facilities, landfills, schools and roads.

WHAT CAN WE DO TODAY?

Participants discussed what they can do today to ensure we meet our ideal visions for the future. Participants focused on how to continue this conversation, and who else should be included.

Economic Solutions: Some economic solutions that can be created include streamlining projects with grant funding to tackle multiple project needs in one area at a time. The city/community partners can continue to expand access to home energy efficiency improvements. Identifying existing sites that have available municipal services and infrastructure that is available for development would have the community grow closer to affordable housing. This includes expanding the grid system without the burden or price of creating new infrastructure. The final idea to tackle the funding problem would be to incentivize sustainable behavior and disincentivize or tax unsustainable behavior.

Public Participation: Encouraging residents to participate in local government and share their vision for an ideal future. Community members can advocate and vote for initiatives that have a long-term impact and help to advance policy and planning goals. Residents can vote for elected officials and support candidates who will implement solutions for our housing, transportation, and healthcare systems.

Education: Educating the community, policy leaders, and younger generations in schools about impacts of climate change, specifically regarding public health, housing, and transportation will help create a sustainable mindset for future generations. If climate change is taught as a public health emergency which has solutions, residents would be more engaged in participating. Are there regional planning or development models that other communities have already developed to help provide sustainable public services? The power of knowledge is important in learning what can be done to create the community that the Marquette residents envision.

Proactive Policy: A local, state, and federal policy shift to create proactive policy is an important step to reaching Marquette's sustainable and equitable future. It is important to overcome the mistakes when looking at past planning policies, and focus on this opportunity to create a community plan together. This would come at the cost of a shift from the for-profit mindset. There would be a focus on looking at zoning ordinances, infrastructure, services and transportation on a regional basis which would lead to a sustainable community for a wider area.

Collaboration with a Diverse Group of People: To create a “for the people” plan there needs to be collaboration and communication across the county. This would give leaders the opportunity to leverage resources, collective advocacy, and understand the value in building partnerships. It is important to have different policy makers meet in person to discuss their overlapping topics. Which is equally as important as having community members such as students & young people, educators, and the general public at these conversations to discuss with policy makers about what they need. If there is a lack of these members, it is important to ask why they are not contributing.

ECONOMIC DEVELOPMENT & DIVERSIFICATION

October 9, 2024



The Marquette 2049 Learning Circle series is intended to encourage people in our community to engage in proactive planning in anticipation of the consequences of climate change. The participants of this learning circle identified and examined how economic diversification and development might evolve in our region during an era of rapid climate change. Participants shared their ideal vision for Marquette over the next 25 years and identified key issues and stakeholders involved in making that vision a reality. This conversation was focused on building a shared foundation that enables the Marquette community to face climate-driven challenges while sustaining economic development and diversification.

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [Marquette County Demographics](#)
- [City of Marquette Resiliency Assessment](#)
- [Economic Development and the Growth Imperative](#)

WHAT IS OUR IDEAL VISION FOR THE FUTURE?

During this learning circle, the participants were asked to share their ideal future for economic development and diversification within Marquette County over the next 25 years. These are the main themes that characterize the participants' "ideal vision" for the future:

An innovative, self-sustaining economy: There will be a strong economic community with many small businesses and a thriving entrepreneurial ecosystem. Marquette County will be self-sufficient meaning that production of food and other materials, recycling, and waste will remain within the County. Residents will be able to capitalize on innovative and sustainable ideas for products and services that are renewable. Marquette will continue to be a creative community, with artists and musicians, who help to stimulate the local economy. The Upper Peninsula will be known as the remote working hub of Michigan. More workers will be able to stay in the area and invest in the economy.

Wages & benefits that support workers' needs: There will be a variety of supportive services for the average worker, including healthcare, childcare, transportation, and affordable housing. Increased wages for workers will provide access to housing in the area, support the local economy, and help to support growing families. These types of jobs will also provide paid training and support mid-career shifts for workers with different backgrounds.

Socially and economically vibrant, equitable, and diverse: The community's economic atmosphere will be characterized by diversity, which will drive economic growth. There will be access to multiple types of high-wage job opportunities and a variety of career paths for the next-generation workforce. The ideal future also includes a diverse workforce, with opportunities for residents from a variety of educational and trade backgrounds. These different industries will be large, successful, and able to give back to the community.

An economy that focuses on preserving the environment: All of the businesses will be environmentally conscientious with a focus on protecting water, maintaining healthy forests, and reducing waste. Our community will secure funding to protect our local environment. There will be a transition from industries that extract natural resources to green economy trades (e.g., life cycle analysis and recycling of batteries, solar panels, and EVs). The buildings of the future will be green as well, with energy-efficient and sustainable materials - the economic ecosystem will be built on an environmental ethic that prioritizes preserving the environment.

An economic development plan that focuses on commercial space and the surrounding area: The future of economic development in our area needs to be focused on creating structured growth with development across corridors, reaching Ishpeming and Gwinn. Our rural areas will need to plan for higher-density development and smart travel between these corridors. Using smart zoning and code adjustments, residents will have easy access to necessities (housing, food, healthcare, etc.). The future will include many entities working together to create responsible development designed for residents (not just tourists) in our region.

Combined, these elements will create a resilient economy that could withstand unexpected changes, due to climate change. The economy will be sustainable through every season, with winter walkability, multi-season recreation opportunities, and seasonal diets that are supported by local farms. We envision a future with a resilient economy that doesn't compromise but works with our environment.

WHAT KEY ISSUES MIGHT IMPACT OUR SHARED VISION?

Funding: Every table discussed the issue of funding, and how to structure funding to support a variety of economic development in the region. Some small businesses in our community are still feeling the effects of the COVID-19 pandemic or the effects of recent changes in weather patterns (e.g., related to tourism operations). Entrepreneurs may need more support to be able to start an innovative and sustainable local business. We might also need more funds to support the local outdoor economy, from trail maintenance and upkeep to visitor services. Some participants noted that the current local government funding models may not be sufficient for the needs of future businesses in our area.

Demographic Shifts: When thinking about the future economy in the community, it is important to think about who will be living here to support that economy. Currently, the population in Marquette is aging and fewer young people remain in the area after graduation. While this area needs a healthy working class, many members of the next generation feel like there are limited opportunities in Marquette and very few jobs that would allow them to afford to live here. Participants asked: how can we attract people to the Marquette area while still supporting them? At the same time, there may be an influx of climate migrants in the area because of the relatively clean and plentiful natural resources available. Such in-migration may bring a variety of skill sets and talents to the area as well. Finally, tourism is a major factor in the local economy and we need to make sure that careers in this sector support workers so that they can afford to live and work in this area full-time, year-round.

Development Plans: Multiple factors affect development planning, and increasingly issues such as gentrification or larger businesses buying out smaller businesses are on the public radar. Additionally, it can be challenging to attract the businesses necessary to support all residents' needs in a rural area. A variety of residents have a variety of needs and preferences, which can make planning challenging. A systems-thinking approach can help to address different resident needs and zoning issues when creating a development plan.

Climate Change: In an era of rapid climate change, many issues will affect the economy. First, Marquette has access to the world's largest supply of fresh water, and this may become an even more sought-after commodity. Second, climate change is affecting the outdoor recreation industry and we will see local impacts of that. Third, climate change may drive development in rural areas, which would also impact Marquette. Additionally, climatic changes are already extending the growing season in our region. Climate change may bring more intense storms to the area so developers

and planners need to consider the potential impact of extreme weather events on buildings and infrastructure. Current infrastructure might need upgrades if changes in storm and weather patterns continue. Some industries such as mining and forestry that economically support this region, could also see changes in demands with a switch to a green economy dependent upon renewable energy.

WHAT CAN WE DO TODAY?

Increased education: Increased education for children, community members, local business owners, and local leaders is important in reaching the “ideal vision” discussed. Introducing climate change-related issues in public schools will help children understand these topics and decision-making later in life. Educating community members on the economic opportunities available in Marquette is important in growing the economy. Educating local business owners on what opportunities to improve their business are available, such as funding, will help generate momentum to move toward the ideal vision. Focusing on different research topics such as collecting data about infrastructure capacity will further educate local leaders and inform planning decisions.

Increased communication: To help educate our community, it is important to create a trustworthy channel of communication. Having a neutral, trusted organization that can support and share grant and funding opportunities is key. Having different methods of communication such as printed materials, emails, and social media posts are necessary to meet different segments of the population. It is important to increase communication between different agencies so they can support each other. Having space for different businesses to connect such as a local government economic summit would be beneficial in reaching the ideal vision.

Support Local Businesses: There are many ways to support local businesses, which will help create a self-sustaining economy. Buying products from local businesses and incentivizing sustainable practices will help make progress toward the “ideal” vision. Larger local businesses are also key to stimulating the regional economy.

Proactive Policy: It is important to think proactively about what is economically viable in our community. Having general guidelines for development proposals (e.g., accepted impact on the environment, contribution to diversity, etc) will be helpful in building a sustainable economic ecosystem.

Creating Partnerships: Different types of partnerships between public and private businesses can generate more support for local businesses. Creating partnerships between organizations can help to drive sustainable economic development in Marquette County. Having strong partnerships and connections between NMU and regional industries can also help support the County in attracting the next-generation workforce.

ENERGY & POWER

November 6, 2024



The Marquette 2049 Learning Circle series is intended to encourage people in our community to engage in proactive planning in anticipation of the likely consequences of climate change. Participants of this circle examined critical electrical energy needs, identified key individuals and organizations necessary to continuing conversation, and shared ideas for a long-term planning process to deal with energy-related issues.

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [MI 100% Clean Electricity](#)
- [Copper in EV's](#)
- [Future of Electricity](#)
- [Energy Storage and EV's](#)
- [Michigan EV Transition](#)

WHAT IS OUR IDEAL VISION FOR THE FUTURE?

During this learning circle, the participants were asked to share their ideal future for energy and power within Marquette County over the next 25 years. These are the main themes that characterize the participants' "ideal vision" for the future:

Accessible and affordable energy for all: All members of our community should have access to affordable energy. Manufacturers might need to carry a larger portion of the cost in order to ensure affordability for all residents. Accessible renewable energy that is easy to develop and maintain is important in this future scenario. Ideally, energy would be more cost effective and the average household will have a lower energy demand because of greater household efficiencies.

A diverse and resilient power system: Different energy sources allow for adaptability in the power grid when there is an outage or extreme weather event. A regional energy plan should include multiple types of power and a timeline or targets for transitioning from fossil fuel-based energy to renewable sources. Ideally, with rapidly evolving technology, the future energy system will be better able to adapt to changing community needs.

Adequate renewable energy infrastructure: With advancements in energy storage technology, renewable energy production will increase across the County. Additionally, advancements in the infrastructure to support electric vehicles will improve

accessibility for all community members. Other infrastructure improvements include a recycling facility for batteries, solar panels, and other mineral-based materials to help achieve sustainable life cycle manufacturing within a closed-loop system.

Energy independence: To achieve energy independence we will need to develop a multi-phase plan outlining a variety of opportunities for renewable energy production. A future scenario might include a combination of community and rooftop solar systems as well as distributed generation at rural households. To gain energy independence there will be an increase in innovation and energy research, as well as training for a workforce that will support the future of renewable energy and energy independence for the county.

WHAT KEY ISSUES MIGHT IMPACT OUR SHARED VISION?

Participants discussed a variety of issues and struggles our community might need to navigate in order to reach the proposed vision for energy and power production in our region.

Divergent Opinions: Attitudes about local policy related to energy systems might be a barrier to innovation within the County. There is already a diverse range of views about what types of energy residents want and where they want it produced. If residents do not participate in the discussion or have misinformation on energy systems it might be more difficult to work together toward a shared vision for the future.

Cultural Shift: Along with polarizing viewpoints, a community cultural shift might be necessary to actualize the ideal energy vision for the future. Currently, consumer habits drive the need for more energy, and those habits and conveniences will need to shift if we want to lower energy consumption as a whole.

Funding: Participants worried that in many cases, renewable energy production and installation is initially more expensive, despite federal funding available. They were also worried about uncertainty around how long and how reliable this federal funding will be available. This is similar when thinking about innovation and research that is needed to implement renewable energy sources. Currently, the majority of the power used in the Upper Peninsula power is generated in Wisconsin. What would it cost to build a local energy grid?

Current Lack of Infrastructure and Technology: Due to the Upper Peninsula's energy grid connection to Wisconsin, the region is lacking infrastructure to support large energy generation systems. When creating these energy sources, it is important to think about what the physical environment can support. Is there enough materials to develop these systems? Will there be enough natural gas to support the heating needs of the Upper Peninsula? What about heat and geothermal pumps that demand electricity? The participants noted dozens of concerns related to developing new

infrastructure and technology. For example, what will happen to battery and solar panels when they've reached their end-of-life? How do we add infrastructure if we do not know when there is a demand for the infrastructure (i.e. electric vehicle chargers)? A lot of pre-planning to develop infrastructure and technology relating to energy and power in Marquette County needs to be developed.

WHAT CAN WE DO TODAY?

Conversation and Collaboration: To continue the conversation about energy sources for the community, there should be a plan outlining the steps for a renewable energy transition. A designated task force or committee that includes representatives from our utilities, policy officials, community members, and the next generation of residents could help guide this plan. Having diversity within the conversation is important and builds trust among the wider community.

Education: Everyone can learn more about different aspects of renewable energy. Education specifically about local units of government (LUGs), zoning, and Inflation Reduction Act (IRA) direct pay options can make solar panels more affordable to install. Public education about how solar panels work in the winter, and how to help households generate their own renewable energy may create more buy-in for community members.

Data and Research: Research on renewable energy systems in the Upper Peninsula is important. Finding money for different research projects that focus on this region and the most affordable, sustainable, and efficient land use options for energy generation will help build confidence in our community. If data is tailored to this region's community needs and grid characteristics it will be useful as we make plans to meet our ideal vision for the future.

Energy Efficiency and Conservation Upgrades: Taking advantage of current initiatives and incentives to build with renewable energy and energy efficiency is important. Helping educate the community on the importance of energy conservation, and to guide them to state, federal, and local programs is something that can be done today to work toward the key aspects of the shared vision discussed. Expanding funding for programs to upgrade and retrofit residential housing and commercial buildings in the Upper Peninsula is a feasible next step.

WATER & LAND USE

December 4, 2024



The Marquette 2049 Learning Circle series is intended to encourage people in our community to engage in proactive planning in anticipation of the likely consequences of climate change. Participants of this circle examined Marquette’s water and land use strategies. We discussed how to better adapt to climate impacts such as rising temperatures, altered precipitation patterns, and increased storm intensity. Additionally, we explored how effective water and land use planning promotes public health, recreational opportunities, and economic stability, ultimately fostering a more resilient community in the face of climate change.

PRE-CIRCLE READINGS & RESOURCES

- [Participant Guide](#)
- [Aanji-bimaadiziimagak o’ow aki](#)
- [Land Use Fundamentals](#)
- [Local Ecosystem Services](#)
- [Local Land Use Example: Founders Landing](#)

WHAT IS OUR IDEAL VISION FOR THE FUTURE?

During this learning circle, the participants were asked to share their ideal future for land and water use within Marquette County over the next 25 years. These are the main themes that characterize the participants’ “ideal vision” for the future:

Sustainable Land and Water Management: There are endless opportunities to be responsible, resourceful, and focused when it comes to the management of land and water resources. We need to improve our wastewater treatment, stormwater management, and reducing impervious surfaces. Additionally, there must be emphasis on solutions like building up (rather than out) to preserve green spaces, prevention of sprawl, and protection of water quality.

Protection of Natural Resources: Every ecosystem will be protected and monitored in a way that ensures preservation of our open land, the sweeping forest, and our many water sources (everything from wetlands and rivers to Lake Superior). Protections will be put in place where humans have high contact with the natural environment, such as wildlife corridors and protected lakefront access. Furthermore, it will be a priority to protect water from external contamination and pollution through infrastructure such as stormwater management.

Sustainable Development and Zoning: Sustainable practices will be incorporated into urban planning. This can include everything from the reuse of existing infrastructure, limiting sprawl, infill development, and zoning to guide growth. It will be ensured that policies reflect a balance between development, recreational areas, and the protection of natural resources.

Innovative Water Use Systems: New technologies will be introduced to improve water use efficiency, such as advanced irrigation systems for food production and sustainable water treatment practices. As we look to the future, the primary focus will be on reducing water use and ensuring water systems support the environment, rather than hinder it.

Community and Environmental Integration: Our communities will build stronger connections between urban areas and the natural spaces around us through initiatives like pollinator gardens, green spaces, and managed public access to lakes and recreational areas. Most importantly, community participation will be integral in decision making related to land and water use, ensuring that local input and indigenous perspectives are integrated into every step of the planning process.

WHAT KEY ISSUES MIGHT IMPACT OUR SHARED VISION?

Participants discussed a variety of issues and struggles our community might need to navigate in order to reach the proposed vision for energy and power production in our region.

Zoning and Land Use Regulation: A key barrier to effective water and land use is outdated or insufficient zoning laws. The need for zoning reform is emphasized, particularly to accommodate sustainable development practices and to address infrastructure challenges like stormwater management. There is also growing support for more flexible and innovative zoning regulations to help implement the community vision for sustainable water and land use.

Stormwater Management and Impervious Surfaces: The risk impervious surfaces present to our land and water ecosystems is enormous. Communities, individuals and businesses alike must have incentivization to reduce impervious surfaces through innovative solutions. This could be done through grant opportunities, or even creative options like a tax system that encourages property owners to take responsibility for stormwater runoff by implementing measures that slow or filter water.

Financial and Resource Constraints: The financial limitations faced by local governments in funding infrastructure improvements, including water management systems, are a significant challenge. Resources must be allocated efficiently, possibly through taxation or other means to fund environmental improvements.

Public Engagement and Resistance to Change: Overcoming social and systematic barriers, such as public opposition to new land use policies or environmental practices, is a key issue blockading progress. Encouraging community participation and addressing misinformation are key steps in moving forward with changes in land and water management.

External Environmental Threats: Issues like over-tourism and the unsustainable use of freshwater resources present challenges to local land and water management. There is a need for balanced policies that protect these resources from excessive exploitation while promoting responsible use and conservation.

WHAT CAN WE DO TODAY?

Education and Stakeholder Engagement: There is a strong focus on educating the community, especially youth, about water and land use issues. Engaging elected officials, developers, and local residents through education and outreach is seen as essential for fostering understanding and support for sustainable practices. This includes utilizing creative venues like breweries and organizing speaker sessions to reach broader audiences.

Collaboration and Inclusivity: Building collaboration across diverse groups, including businesses, service organizations, and nonprofits, was a key discussion point. There is a call for more inclusive planning processes that involve a range of stakeholders, ensuring that everyone has a voice and that the right people are in the right spaces to discuss and address water and land use issues.

Local Planning and Policy Reform: Reforming local zoning ordinances to allow for more affordable housing and updating planning documents to reflect current and future needs is a priority. The importance of adopting clear goals for environmental and land use planning at local and multi-county levels was highlighted, as well as ensuring that rebuilding efforts after disasters take future risks into account.

Action and Accountability: Taking action from the grassroots level is emphasized, with a push for bottom-up initiatives that "inspire" communities with the right ideas. Holding local officials accountable and ensuring that community needs and desires are heard by decision-makers is a central theme. There is also a focus on ensuring that stakeholders with authority, such as drain commissioners, are involved in planning and decision-making processes.

Proactive Infrastructure and Disaster Planning: The importance of future-proofing infrastructure, especially in relation to environmental risks and disasters, is mentioned. This includes the need to plan for future disasters when rebuilding and ensuring that land use and water management policies are adaptable to changing environmental conditions.

SYNOPSIS OF KEY THEMES



Over the course of the Marquette 2049 Learning Circle Series, perspectives were collected from more than 100 participants. CATF was able to gain valuable insight into what hopes, concerns, and ideas residents of Marquette County have for adapting to and mitigating the impacts of climate change in our community.

With a clear appetite for dialogue and learning, community members gathered for connection and understanding. The Learning Circles were structured in a way that residents could sit together at a table and interact with their neighbors; conversing and listening to those next to them in order to better understand what we want Marquette to look like in 2049 and beyond. Out of each table conversation, similar themes arose around what we can do today in order to make progress toward that future.

Five key themes repeated across the entire series of Learning Circle discussions. These five themes are not merely aspirations, but are actions that can be implemented now to significantly advance a sustainable and resilient future for our community.

STRENGTHEN COMMUNICATION & COLLABORATION

In nearly every table report out and at every Learning Circle, participants cited the need for communication and collaboration. In order to foster open dialogue among residents and stakeholders, pathways of communication must be made readily available. Deliberately open, ongoing, and accessible meetings, symposiums, and discussions are essential in building the foundation for a resilient community.

Access to conversation is important. Many participants noted that having a diverse set of individuals and groups will lead to a deeper and more holistic understanding of our community's needs and how best we can take action together in the face of climate change, environmental degradation, economic uncertainty, and population changes.

Although much of the work ahead is combatting obstacles around our environment and climate, showcasing success stories and progress made is a key way of inspiring wider engagement and ensuring that the work continues. We cannot simply focus on the work ahead, but we must also promote a landscape of inclusive listening, collaboration, and decision-making through current practice.

EXPAND EDUCATION & ENGAGEMENT PROGRAMS

There was not a single Learning Circle discussion that did not state the need for expanding educational opportunities and engaging further with community members at all levels. In order to make changes within our community, educational initiatives are necessary.

We can begin at the entry level – everywhere from schools to local businesses – integrating sustainable practices into school curriculums, local business forums, local news sources, government communications, and beyond. Participants suggested that education and engagement could include information about agriculture, climate change, renewable energy, economic expectations, utility bills, and available funding opportunities. To maximize engagement with new audiences the participants advocated for using real-world examples that relate to life in the UP.

Community outreach, information gathering, and engagement through local institutions should engage all demographics, especially vulnerable populations, to increase awareness and participation in decision-making and sustainable practices. Participants were adamant that such populations cannot be left behind in any step of the process as they are historically underserved and statistically most likely to be impacted by climate change, pollution, and economic downturn.

ADVOCATE FOR POLICY REFORMS & LOCAL GOVERNANCE MODELS

Whether related to land use, clean energy, demographics, transportation, waste management, or public health, ensuring zoning laws, ordinances, and policy reflects the needs of our community is a key theme mentioned throughout the Marquette 2049 Learning Circles. Updating and changing our rules and regulations is a step that we can begin advocating for now.

Ensuring local governments are communicating effectively with residents about upcoming policy changes is key to securing residents ability to take initiative and influence policy around programs mentioned in the Learning Circles, such as small-scale agriculture, urban gardening, and renewable energy infrastructure. Additionally, participants emphasized that it is up to community members to elect officials who will push for these changes and enact future-focused policy instead of maintaining business as usual.

By creating opportunities for neighborhood governance models that allow hyper-local decision-making and resource sharing, pathways can be created for the best possible planning around the needs of people and the environment.

SECURE FUNDING & BUILD CAPACITY

The participants explained that a lack of funding is often the primary obstacle to action. Enlisting dedicated grant writers and expanding staff capacity of those who can seek funding to support the development of sustainable infrastructure, environmental protection, and educational programs will be a key opportunity as we move into the next decade.

Marquette County and the entities working within it need expanded funding for renewable energy, energy efficiency upgrades, waste management systems, infrastructure development, educational opportunities, and environmental protection. Investing in capacity-building will ensure long-term success in the area of climate adaptability, community-building, and increased engagement.

Participants suggested that residents begin advocating today for subsidies to make sustainable behaviors more affordable and accessible across the County. These types of initiatives will require collaboration and partnerships among residents, businesses, nonprofits, and local government.

FOCUS ON COMMUNITY-BASED ACTION & ACCOUNTABILITY

Before any progress is made, participants voiced the need to foster grassroots initiatives that reflect the needs of our communities and ensure local voices are heard.

Residents have a lot of power and can push for policies that will address climate change. The participants recognized that residents are essential to ensure local governments are held accountable and deliver on promises made.

Lastly, by building and strengthening partnerships between public and private sectors, collaboration can be promoted across communities to share resources, research, and best practices. Essentially, a network could be created to hold one another accountable and work toward similar goals with a sense of our shared futures in mind.

WHAT'S NEXT



The goal of the Marquette County Climate Action Task Force is to help prepare local leaders and stakeholders across the county to develop mitigation and adaptation strategies against climate change. The Learning Circles were a way of gathering resources and community members, learning their concerns and ideas, and disseminating that information to decision makers to assist in the development of a plan for resilience.

Based on the post-workshop survey results (see the Appendices), the Marquette 2049 Planning Committee came up with the following possibilities for moving the Learning Circles series forward:

Internal Presentations

- Host a series of internal presentations for CATF building upon the issues and questions identified in the 2049 series.
- Invite key leaders from across the County to share work being done as well as strengthen relationships among others doing similar and connected work in Marquette County.
- CATF continues to serve as a climate information clearinghouse, sharing the stakeholder input in combination with local initiatives.
- Engage some of the key players mentioned throughout the Learning Circles, including Board of Power and Light, MarqTran, Materials Management, Superior Community Partnership, township associations, the County Planning Commission, and various other local governments.

Public Presentations

- Host specific follow-up presentations for each topic.
- Coordinate expert panelists to answer questions that stakeholders generated throughout the Learning Circles series.
- Invite local leaders who are working on similar initiatives and local efforts to address the issues.
- Share the extensive “listening” that has been gathered through the series and relay this stakeholder information with key leadership across the County.

Strategic Doing Process & Project(s)

Use the [Strategic Doing](#) process to identify “pathfinder projects” for CATF to initiate. For example, hosting a panel series based on the themes and questions generated in the Learning Circle series.

- This can be done by referencing the synopsis section of this report to ensure that forward movement is coming from what participants saw as areas of acting in the present.
- CATF’s primary role is to act as a network between residents, government, nonprofits, business, and all aspects of the community. Therefore, it must leverage the strengths of those partners and look for collaboration and opportunities for progress together.

Strategic doing is not simply creating a plan that will sit on a shelf, but rather the creation of set action items that will help move the above-mentioned *network* forward strategically. CATF has been collecting input and gathering data over the last year. The collection of community input is never done, but it can repeatedly be distilled, assessed, and acted upon as 2049 continues to draw closer.



APPENDICES

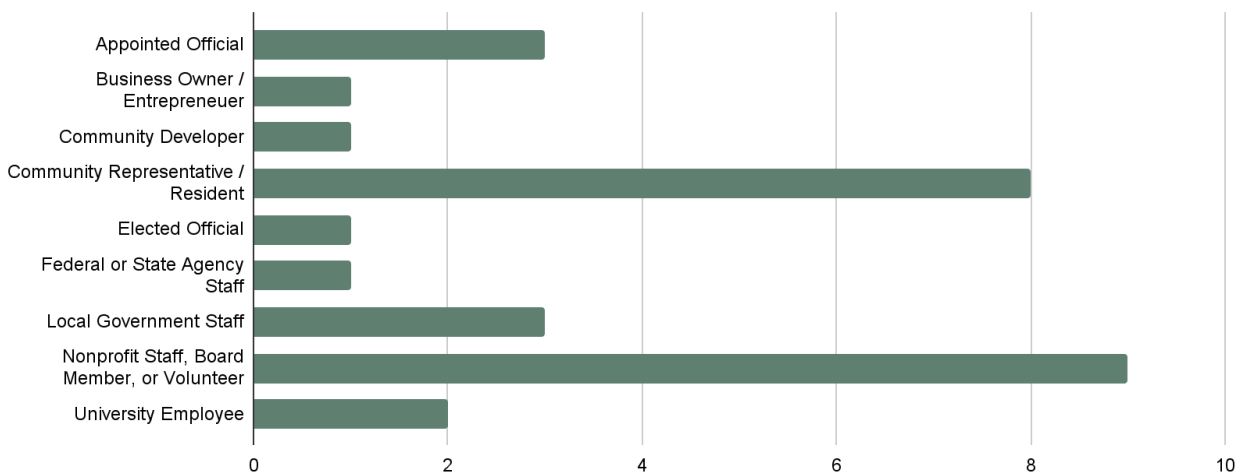
LEARNING CIRCLE SERIES SURVEY RESULTS



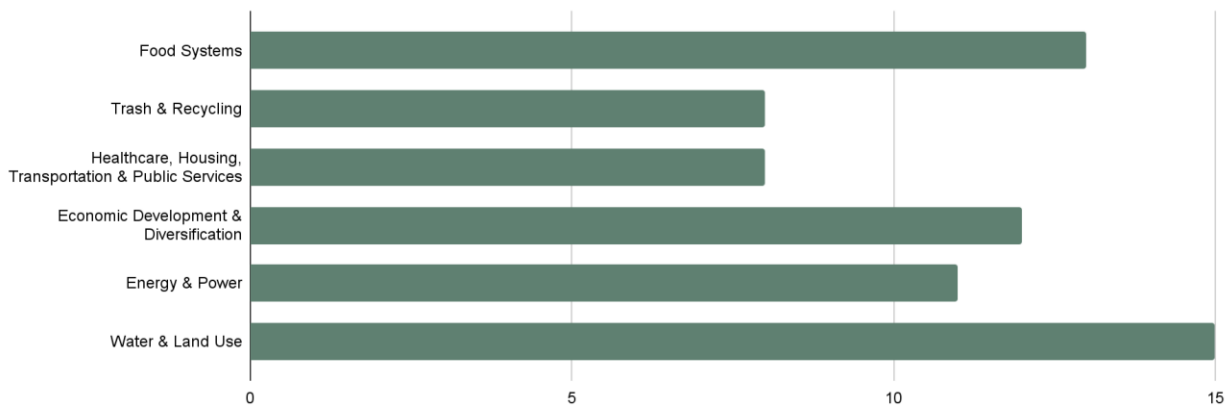
In December 2024, a survey was sent to all participants of the Marquette 2049 Learning Circles. The survey was conducted in order to assess the Learning Circle Series and identify what can be improved as we move forward into 2025 and beyond.

Overall, there was a positive response regarding the Learning Circles experience. Areas of improvement include learning better how to take action and make change, including elected officials as a part of the conversation, and ensuring voices of young, low-income, and BIPOC residents are heard.

Which role(s) best describe you?

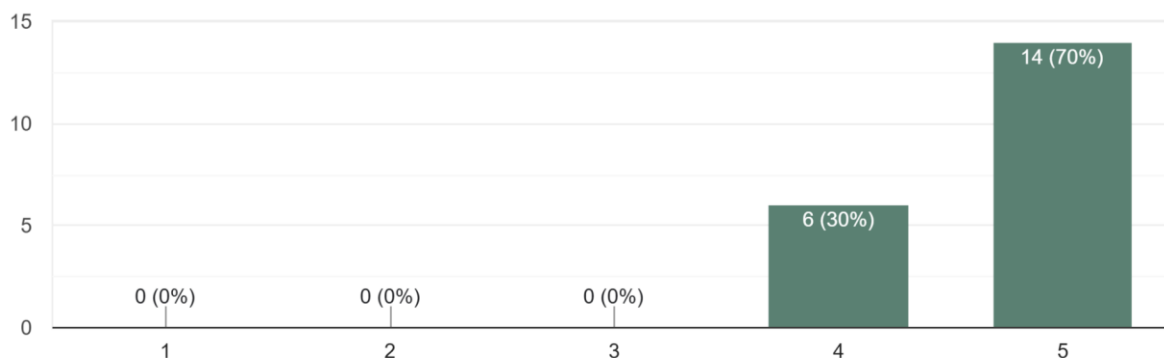
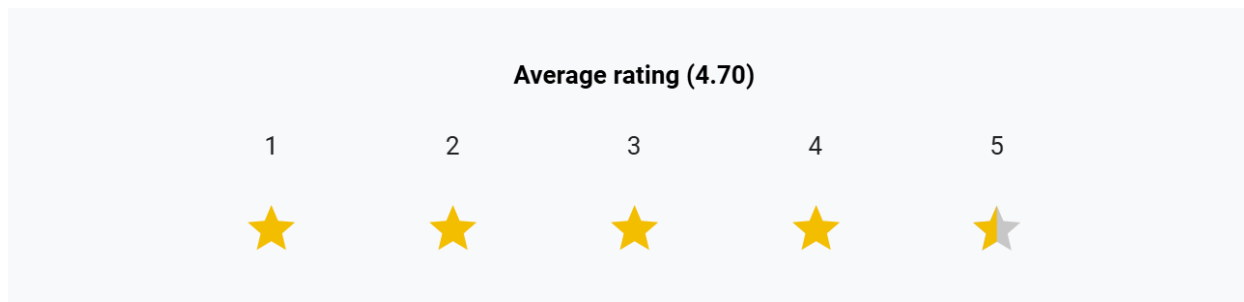


Which Learning Circle(s) did you attend?



Overall, how worthwhile were the Learning Circles?

1 = "not worthwhile" and 5 = "very worthwhile"

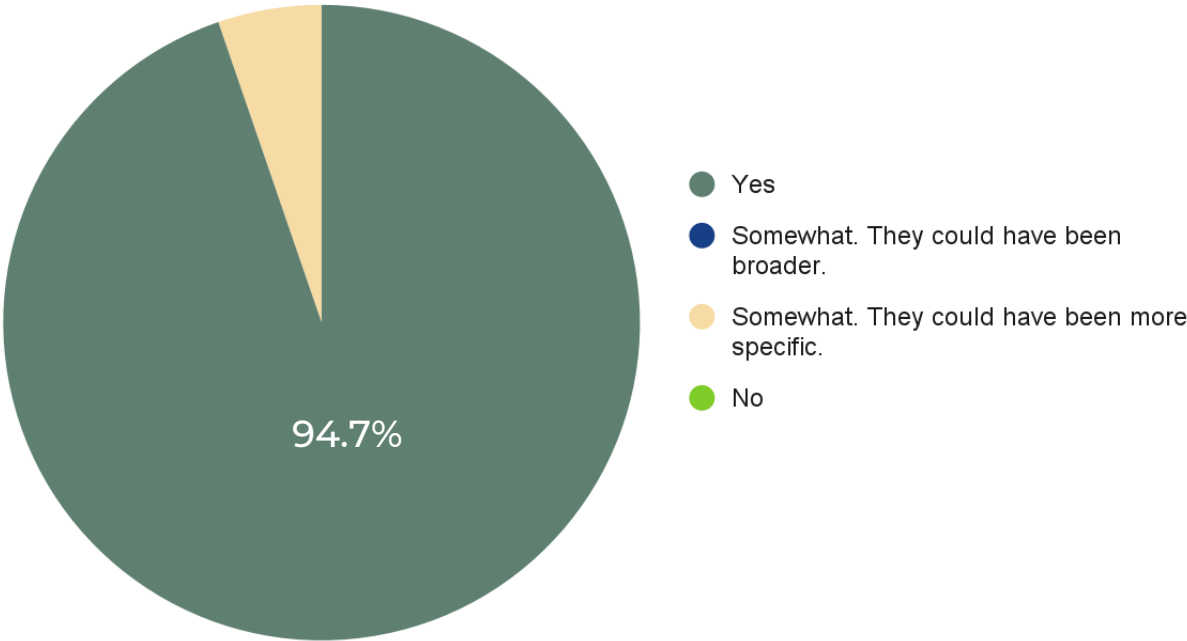


Please share your thoughts about the discussions you had while participating in the Learning Circles.

What a great place to meet others concerned about the same topics and learn their reasoning especially when they have different ideas than you. Thought provoking.
Wonderful discussion and insights into the work being done around the Upper Peninsula
It was great have diverse perspectives at each table. I learned something new every time!
It was really good to have solid conversations with folks on this issue. People had a lot of perspectives to share from their own live and areas of expertise.
Very informative and open ended
Good discussions, valuable knowledge/information and a variety of ideas were shared, but much of the discussion wasn't informed by either the pre-meeting topical materials or a significant understanding of the issues. Overall, the summaries reflect that there are a variety of good intentions and ideas, but the there is still a considerable gap between "things people wanted to know more about" and what was discussed and learned in the LC sessions.
I felt like sometimes the conversations were not specifically about the topic that we chose for the theme of the learning circle. However, I thought this was okay since there were still productive conversations occurring that were somewhat related.

The discussions were great and everyone was respectful and brought interesting ideas to the table
Discussions were very good with diverse individuals which made it very productive and thought provoking.
It was uplifting and energizing to participate in thoughtful discussion
Because the groups participating were so diverse it allowed for exposure to many different viewpoints and a great opportunity to learn from others in the larger community. Hopefully, the summaries of the discussions can be used by the different groups participating to develop specific action items through which to proceed with addressing the identified issues.
Appreciation for the sessions and all who attended. Desire for a clearer pathway to convert community feedback into political will.
They were very rich and comprehensive.
Very insightful to hear perspectives from people with different points of view.
Many interesting and thoughtful perspectives provided.
It was a great way to connect with people who I wouldn't normally interact with and discuss meaningful topics and ideas.

Were the topics discussed relevant to Marquette County?



If we extended the Learning Circle Series, what additional topics would you like to discuss?

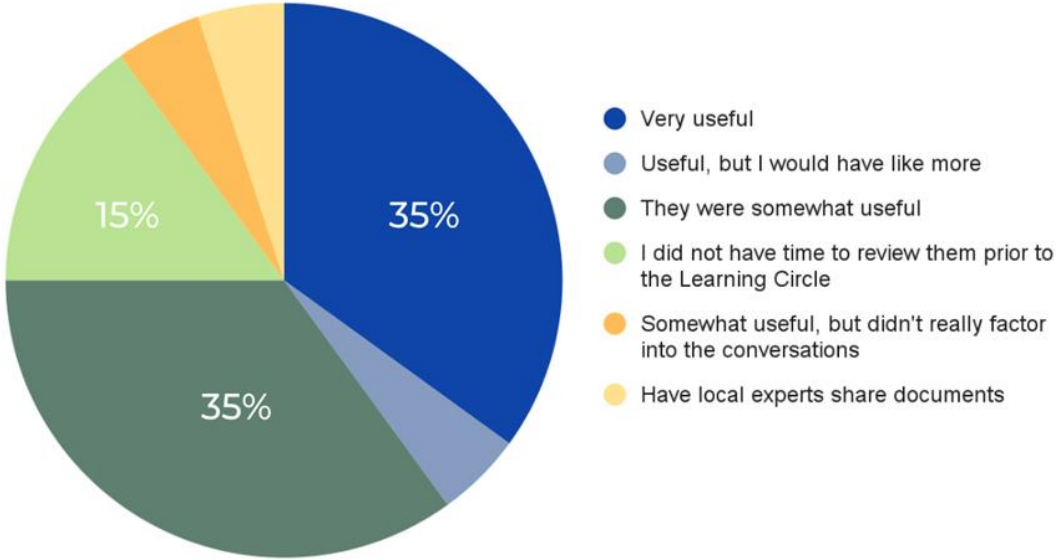
Of course the changes in energy will be foremost for the next 10 years at least. Given the clean water challenges that are growing daily will require much thought and cooperation
Deeper dives on specific topics, based on feedback/themes from the first round.
The intersection of environmental/climate change issues with other issues facing our communities
Zoning ... seemed to be the core topic of each session I attended
I don't think they should be continued in their current form unless there is a consensus that there was a significant degree of learning achieved.
Outdoor Recreation/Tourist economy!
Actionable individual/community steps; climate-forward lifeways; disaster preparedness; climate communications/storytelling
None that I can think of
Maybe some of the overlapping themes that came up in all sessions, like transportation
Demographic change and adapting to an older population
Local production economies, climate change adaptation, political lobbying, further discussions on food systems/regenerative agriculture practices/food processing and distribution, affecting social change, building local community resilience workshops
I'd be fine with hosting a couple more, but I'd be more interested in moving toward implementation on the topics already discussed.
Climate-centered financing for small businesses
Educational programs for schools

As we plan for future community discussions, are there more beneficial ways of formatting these gatherings? Please feel free to get creative with this question - we would love to hear your thoughts!

It would be good to randomize seating, so that people have to make new connections and potentially move out of their comfort zone more during discussion
I think the roundtables were fine.
No, this is a GREAT format! Wish more community forum-style gatherings were like this.
Smaller groups - too much discussion for groups larger than six

What is being done appears to be working.
I see real progress coming from volunteer working committees on the Learning Circle topics with stakeholder, CATF, and community representation. This may face pushback if not commissioned by County or LUG board(s), but has the potential to do the work necessary to move MQT forward without requiring more of our elected officials' and LUG staff time/budget. MQT is blessed with forward thinking, passionate, and motivated leaders who could lend their expertise to entities like utilities, homeless/housing authorities, local schools, waste management authorities, public transportation services, etc.
Offered at different times of day to accommodate different schedules
Maybe have participants upload documents of topic interest. Some were experts in the topic and could share resources. Have table leaders remind participants of letting each person speak uninterrupted during first round. Government entities work with residents to educate and take action (City of Marquette Residents' Academy is a good start). Revise format for larger groups
Although the discussions were all interesting, I realize that the timing had to be strict. No matter. It requires us to stay on point and not get into "war Stories".
I would love to see a more accessible time for participation. More events/conversations after working/school hours so a wider range of people can attend.
Format seemed to work very well, but time allocated could have been 30 minutes longer per session to allow all those at a table an opportunity to answer each question posed. Alternatively, limit table groups to 5 participants.

How useful were the resources shared before the Learning Circles?



Was the time and location of the Learning Circles accessible for you? If not, what would make it better?

After working hours (after 5 pm)
Great
I was only able to attend when I could use PTO. Having discussions outside regular work hours could increase attendance and the diversity of voices
It was a good time.
Keep it the same.
Location worked well for me, I only made it to one session because I often had scheduling conflicts. But since my schedule varies a lot, I'm not sure what to suggest to avoid this.
The time was a good time of the day. The location was very good for sessions, as there was space between participating tables.
Worked fine for most of the circles.
Yep / Yes (x8)
yes (but I'm retired - maybe a brown bag lunch format to bring in more people?)
yes, since luckily I can attend as part of my work day. I can see it being hard for students or professionals who are busy during that time.
Yes. I am not a parent and have a flexible work schedule, so time and location were no issue.

Who was missing from “the table” at the Learning Circles?

Elected officials (State Rep, State Senate)
Elected officials/policy makers, farmers, media representatives
Government employees were seen less and less. I think they may feel like the solutions fall onto their "laps", and they are already overworked and overwhelmed as it is.
Greater participation by elected local officials might lead to more follow through with action items.
High school/younger students, students from Northern
Indigenous community input
K - 12 representatives / educators

low-income folks, rurally isolated people, those who aren't in the climate space so probably don't know that these are going on
Marquette Board of Light and Power
Some key players were not there on some of the topics
State agency representatives
There weren't a lot of businesses represented, it was mostly EDO and government folks.
Utilities for power/energy. Outlying LUG representation
Youth: the generations who are growing up during this time of change and crisis

Is there anything you would change about the Learning Circles?

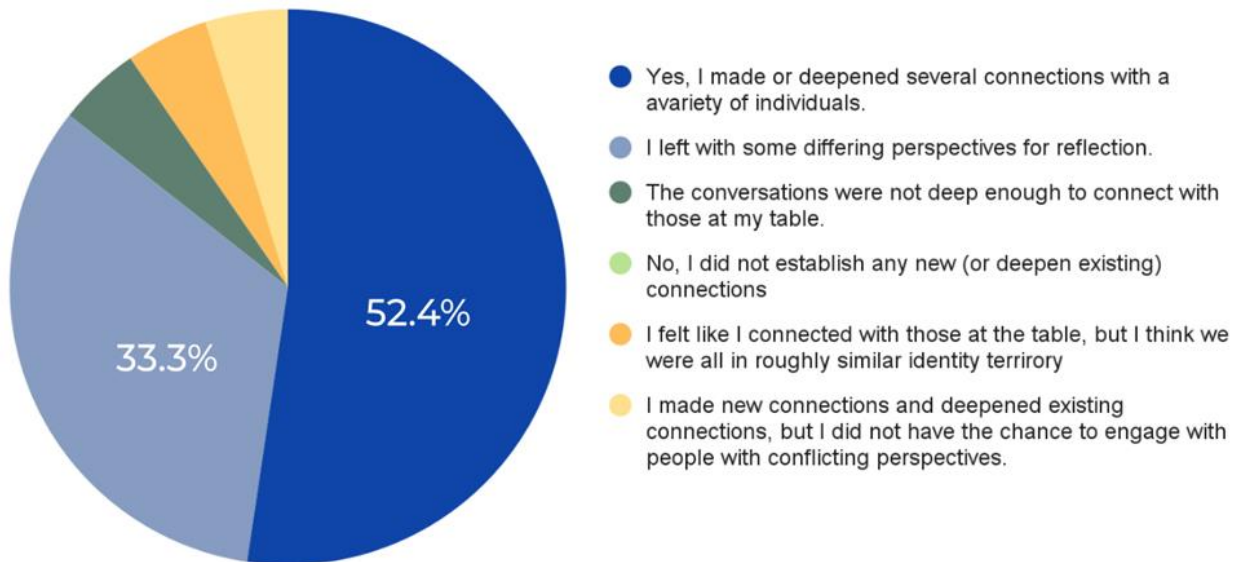
No!
I would appreciate opportunities to connect with more people outside of my table group. As we move forward in this work, I'd also appreciate opportunities to collaborate on proposal ideas while so much knowledge and experience is gathered together. Maybe this would look like a conference with longer sessions
I'm not sure. It seems that most of the CATF members are satisfied with it, but I'm not sure that it significantly elevated the understanding of the issues. Not being an educator, I'll leave that determination to those experts.
It would be fun to see what comes out of the conversations, like folks reporting back on connections made/projects started in relation to these conversations.
No
No, done well and they were tight with the time. Good job!
Possibly make them longer to allow for more discussion
Provide more time for discussion
Sharing the compiled notes with everyone afterward.
Some way to rotate everybody so that you are never with the same group. Life is about meeting different people.
They were fantastic and I hope to see them continue and evolve. As a first chapter, I think they were done perfectly. If they are to continue, I would like to see an introduction of skill-building and education along with solicitation of feedback, as well as a harsher/more honest look at the realities facing our global ecosystem now and in the coming years.
They were well run (except for table leaders letting people interrupt). Would like to see it

documented how these sessions sparked further action. Jes mentioned a few during the CATF meeting.

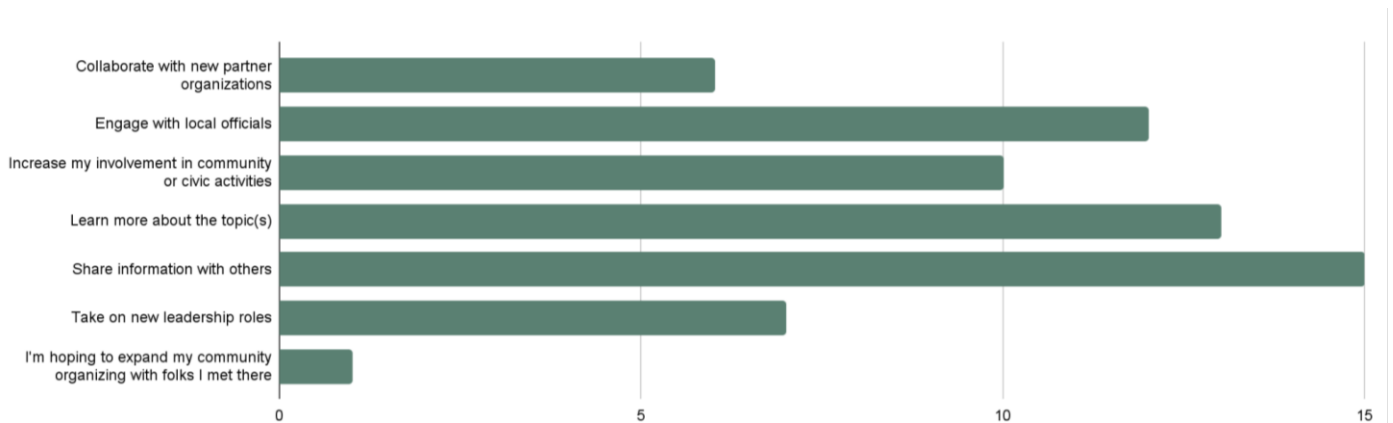
This was a great catalyst to prepare for future action to be taken on these topics. Thanks for all the energy you poured into this Jes!

Widen the audience to more UP communities

By participating in the Learning Circle Series, please indicate if you were able to establish new or deepen connections with people who do not share your shame (e.g., professional, social, ideological, or cultural) perspectives?



Which of the following do you plan to do as a result of your participation in this series?



LIST OF CONCERNS & TOPIC SUGGESTIONS



CLIMATE CHANGE RELATED ISSUE / TOPIC SUGGESTION
Regional agriculture / food security / circular food economy / food systems / food supply chain / local food systems
Housing: sustainable housing development / redevelopment / 3D printing homes / affordability
Local government collaboration / multijurisdictional networks & coordination
Energy: renewable / clean energy & fuels / insights for equitable transition
Threats to aging infrastructure (human and natural pressure on infrastructure)
Transportation, EV infrastructure, making transit cool (plus, boats, trains, etc.)
Land use & preservation
Expanding communication, education and outreach on this topic
Waste management, reduction, landfill capacity & electronics & batteries
Water quality (storms, algae, waste, etc.)
Population / changing demographics / Climate migration
Employment, job opportunities & job training
Climate disasters / extreme weather events / unpredictable weather and climate
Diversifying this conversation / empower youth to engage
Environmental justice issues
Recycling (all materials, electronics, batteries, etc.)
Parks & natural areas
Natural resource availability & demand; responsible & sustainability use
Disaster planning & contingency planning for unexpected events
Economic equity & justice / how do we afford this transition
Recreation / Outdoor economy / responsible recreation
Health and quality of life, vector borne disease
Cities & city planning
Public services / social services / emergency services

CLIMATE CHANGE RELATED ISSUE / TOPIC SUGGESTION
(continued)

Industrial & economic shifts / minerals needed for the shifts
Cultural impacts of climate change
Proactive approach to natural resource protection
Forest, carbon capture & forest management, forest parcelization
Sense of community
Pollution
Indigenous knowledge
Carbon markets and opportunities for our region
Fire, wildfire, impact of smoke
Shoreline changes and coastal resilience
The new "not" normal
Transition from consumer culture
Ecological Diversity & change
Invasive species (aquatic, terrestrial, human, etc.)
Justice
Electrification
Biodiversity
Diversity
Sense of belonging
Childcare
Economic development
Business leadership
Supply chain management

ACKNOWLEDGEMENTS



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A special thanks to all who participated in the Marquette 2049 Learning Circle Series. Your involvement, insight, and conversation are key to building a climate resilient community.



MARQUETTE COUNTY
CLIMATE ADAPTATION
TASK FORCE