



MICHIGAN TRAILS ADVISORY COUNCIL (MTAC)

Meeting Minutes

Ralph A. MacMullan Conference Center

104 Conservation Drive

Roscommon, MI 49653

Dec. 12, 2023

1 - 4:30 p.m.

Welcome – Roll Call

PRESENT FOR THE MICHIGAN TRAILS ADVISORY COUNCIL

- Brian Beauchamp, Chairperson
- Kenneth Hopper, Vice Chairperson
- Michael Maves
- Mark Losey (virtual)
- Ryan Laporte (virtual)
- Jason Aric Jones (virtual)
- Richard Williamson
- Jenny Cook
- Amy Scharmen-Burgdolf (virtual)
- Karen Middendorp
- Tavon Brooks (absent)

PRESENT FOR THE DEPARTMENT OF NATURAL RESOURCES (DNR) STAFF

Tim Novak, Annalisa Centofanti, Greg Kinser, Ron Yesney, Peter Costa, Jill Sell, Paige Perry, Nicole Hunt, Blake Gingrich, Jessica Holley-Roehrs, Dave Jaunese, Heather Durocher, Chris Stark, Matt Torreano, Sage Hegdal, Lee Maynard, Rob Katona, Jeff Kakuk, Joshua Pellow, Cody Stevens, Jason Fleming

Meeting minutes

Meeting called to order at 1:15 p.m. by Chair, Brian Beauchamp.

Council and DNR staff introductions.

ACTION ITEMS

Motion was made to approve the Sept. 28, 2023 meeting minutes by Karen Middendorp and seconded by Rich Williamson, with all in favor. Motion carried.

Motion was made to approve the Dec. 12 agenda by Michael Maves and seconded by Rich Williamson, with all in favor. Motion carried.

Motion was made to take agenda items out of order by Karen Middendorp and seconded by Rich Williamson, with all in favor. Motion carried.

PUBLIC COMMENT

Tom Barron

Mr. Barron requested to open Trail 6 to ORV use between Beechwood Road and M33. The trail is signed no ORV's and does not show up on ONYX. Please consider reopening this trail, it will benefit local economy. Dave Jaunese, U.S. Forest Service, USFS has taken note to this request.

Barb Kurti

Ms. Kurti, an equestrian from Allegan County recognized the Allegan State Game Area's current restrictions regarding the endangered Karner Blue Butterfly concerns. Ms. Kurti mentioned she is aware that a pipeline easement and pipeline runs through the same area which requires clear access for inspections and maintenance. She appreciates the snow club for keeping the trail clear and pointed out and that equestrians do not have a designated trail along the snow trail.

BUSINESS ITEMS FOR DISCUSSION

MSU STUDENT RESEARCH PROJECTS

MELISSA MACIEJEWSKI, MSU STUDENT

Melissa presented her report on ebike growth and use in Michigan (report attached).

COLIN PEARSON, MSU STUDENT

Colin presented his report on trail sustainability and data capture in Michigan (report attached).

Bob Wilson, Michigan Trails MSU Instructor, mentioned this semester, his students have been involved in building trail plans throughout the state.

Mr. Wilson believes MTAC will benefit if they open a seat on the council to a student.

Jason Aric Jones added this type of research is important and will incorporate Melissa's finding into the ebike subcommittee workgroup. Jason would like to see a formation of a cycling committee before a dedicated ebike subcommittee is formed. Additionally, Jason concurred that it is important to hear input from the voices of the younger generation.

Bob Wilson said he recognizes the State lacks trail data to track use, maintenance, and sustainability. Therefore, Colin's presentation focused on trail data and sustainability.

Jason Aric Jones said good user data is imperative and should be first and foremost.

Rich Williamson mentioned a survey is sent out to hunters and is wondering if something similar can be done for the trails data to determine use, maintenance, and sustainability.

Mark Losey suggested that MTAC formulate a plan and make a recommendation to the DNR and determine best practices to capture data and save in repository for future research.

*Brian Beauchamp noted to add this topic to next MTAC agenda, and request DNR staff present how this data is currently captured.

Bob Wilson suggested a system based on trail regions of the State. Bob said the Grand Valley Council has a system that should be considered to replicate.

Mark Losey brought up the question on where the funding will come from. Bob Wilson said an option may be to explore small appropriations from the MI DNR Natural Resource Trust Fund on an annual basis for administrative support.

Tim Novak, DNR, thanked Bob, Melissa, and Colin, any other students that have contributed to this research.

ORV ALPHA SIGNAGE LOWER PENINSULA (ORVAW)

RON YESNEY, DNR

Discussions at the last Off-Road Vehicle Advisory Workgroup (ORVAW) meeting about ORV alpha signage being expanded to the Lower Peninsula (L.P.). The alpha signage program has been implemented in the Upper Peninsula (U.P.) and is working well. ORVAW has recommended that the DNR explore expanding the alpha system into the L.P., providing statewide consistency.

Brian Beauchamp asked what costs will be associated with this expansion. Ron Yesney said the markers will need to be created and resources to distribute. Ryan Laporte agrees the system is effective in the U.P. and keeps riders on the designated trails with less confusion.

Ken Hopper asked what the timeline will look like before riders recognize the changes. Ron Yesney reported this has not been gauged, and it did take some time.

Karen Middendorp asked if there are any drawbacks. Ron Yesney mentioned the signs may be interpreted as a county road name and education is key. Karen believes the time is right to do this expansion now and it is a great idea.

Rich Williamson suggested the ORV trails in his area would be great for a pilot program (Harbor Springs, Pleasant View Township). Rich volunteered to help implement.

MOTION

Motion was made by Karen Middendorp for MTAC to approve DNR staff investigating and following up with a report including costs and timelines (roll out) for the ORV Alpha Signage, and seconded by Brian Beauchamp, with all in favor. Motion carried.

SECRETARY OF STATE (SOS)/SNOWMOBILE REGISTRATION STICKER NEW SIZE (SAW)

TIM NOVAK, DNR

The SAW board voted for the DNR to look into keeping registration stickers the same size as previous years, the new sticker is smaller. Property owners are having trouble reading the smaller sticker. SOS made the changes without consulting the DNR.

MOTION

Motion made by Jason Aric Jones for the DNR to carry forward investigating the current snow registration sticker size and converting back to the original larger size, and seconded by Karen Middendorp, with all in favor. Motion carried.

SNOWMOBILE LAND USE ORDER (LUOD)

JASON FLEMING, DNR

A presentation at the last Snowmobile Advisory Workgroup (SAW) meeting outlined some primitive/restricted areas within some of the state parks where snowmobiles are not allowed. Snowmobile users are encouraged to use the designated snow trails. This request is not unique and is something that needs to be updated in the state park land management plans. Each park that has been identified in this LUOD has specific reasons for these updates and has been documented. The next step will be to bring this LUOD to the Natural Resource Council (NRC). It will take 2 meetings for them to review/approve before this is presented to the Director for approval and signature.

Jason Aric Jones asked if trail goes through a primitive area in the state park, will machines for grooming still be allowed. Jason Fleming said typically, preexisting maintenance/grooming use will not be removed. There is a list of state parks with specific areas identified. Jason Aric Jones suggested to gather more public input and dialogue.

Karen Middendorp is concerned by the number of parks on the list and does not recall all these areas pointed out during the SAW meeting. Karen asked how an area gets designated primitive. Jason Fleming said there is a process involving many stakeholders, public input, discussions, and approvals that occur.

*Jason Fleming asked to add this topic to the SAW meeting in Feb. 2024. He will provide the board members with maps and more defined information.

SAFE PASSING SIGN

TIM NOVAK, DNR

The Equine Trails Subcommittee (ETS) has advised the DNR sign committee to move forward with a safe passing sign (attached).

Jason Aric Jones commented that affiliates are comfortable with most of the sign but would like to see YIELD for horses and not STOP, to be consistent with other states.

Brian Beauchamp asked if the sign will be posted on all multi use trails. Tim Novak replied to the sign will be posted on any multi use trails that includes designated equestrian use and similar signs at trails heads with more description in text.

Amy Scharmen-Burgdolf commented that she would like to review and assist in deciding where these signs should be posted. Also, she feels YIELD is acceptable in place of STOP.

Nicole Hunt, DNR, added to consider ADA compliance for visual users (colors).

Jenny Cook agrees YIELD is acceptable wording, it is what the users are used to seeing. Jenny appreciates the DNR working with the equestrians creating this sign. The ETS board members would like to see this presented at the next ETS meeting in March and moved forward to MTAC for approval.

UPDATES

U.S. FOREST SERVICE (USFS)

Dave Jaunese, USFS

Huron Shores a lot of partner work is completed on the Wild Cat Mountain Bike Trail. Iosco Exploration Trail phase 3 has wrapped up and phase 4 is along the way. Heavy ORV use in the late

fall has created a need for maintenance after the ORV grant has been closed out which is causing grief with local snowmobile clubs finding the trails in rough shape.

Mio has received funding for additional repairs on the Luzerne Boardwalk/Shore-to-Shore trail.

Cadillac/Manistee is expanding the scope in an agreement with Michigan State University (MSU) to perform a capacity analysis on the Manistee River Loop Trail. The trail has started to degrade in certain areas.

Huron Baldwin/White Cloud is getting ready for the snowmobile season. Still seeing a heavy use from ORV's causing a lot of rutting. Staff, fire dozer operators, and road commissions are working together to get areas smoothed out.

Cedar Creek Trails head is closed for ORV's and is transitioning for snow use.

The North Country Trail is a strong partner with the USFS and together they are working on tread maintenance and sustainability in portions of the trail that have structure failures.

Jenny Cook mentioned the newly constructed stream crossing at Goose Creek may present itself as a great example in for the Luzerne Boardwalk project.

Amy Scharmen-Burgdolf also mentioned the stream crossing at Bay De Noc Grand Island Trail as another example.

EBIKE SUBCOMMITTEE UPDATE

JASON ARIC JONES

The Ebike Subcommittee continues to meet regularly and discuss the draft LUOD. They are hoping to present the LUOD in April at the NRC. The subcommittee is working on developing a public survey for feedback and possible a couple town hall meetings to take place in January or February.

Jenny Cook requested to add a note or reference in the survey on the importance it is to yield to horses, educating through the survey.

ALLEGAN STATE GAME AREA - KARNER BLUE BUTTERFLY

TIM NOVAK

This is an update from MTAC's public comment from the last meeting. DNR Parks and Recreation (PRD) staff has had discussions with DNR Wildlife (WLD) and has been informed how the endangered Karner Blue Butterfly was identified along the trail. WLD shared the studies that were completed from MSU. The Department is acting in regulation with federal law for endangered species. Trails staff is working on proposed reroutes and will share more information as it is solidified.

Joe Schaffer, public comment, has some concerns with the language in the report (MSU) regarding the federally endangered Karner Blue Butterfly. It is recommended to further discuss these concerns with DNR Wildlife and federal government partners. DNR trails staff is open to continuing discussions regarding a reroute.

TRAILS SUMMIT RECAP

TIM NOVAK

See attached presentation.

MTAC RETSTRUCTURE WORKGROUP/ NONMOTORIZED FUNDING WORKGROUP

TIM NOVAK

Workgroups have not been established; volunteers will be solicited. Amy Scharmen-Burgdolf suggested to combine the nonmotorized trail funding workgroup and maintenance groups together.

ETS/NAW TRAIL SEPARATION MEETING

JAN. 30 – 6 P.M.

SUB COMMITTEE REPORTS

Equine Trails Subcommittee (ETS) – Jenny Cook (report attached)

Non-motorized Advisory Workgroup (NAW) – Jason Aric Jones

The workgroup discussed expanding the motorized Ride to Right safety message planning to include the nonmotorized user groups. Waterways received a onetime funding of \$500K. The Ebike Subcommittee is focusing on 9 points that they identified and want to address before the LUOD is approved. Public comment from a NCT user recognized that some trails have mislabeled signs, stating no bikes on the trail, which those sections are open to bikes. The NCT has reached out to this individual and is working together on correcting the issues.

Snowmobile Advisory Workgroup (SAW) – Karen Middendorp

The public and board members attended a Lake Linden to Dollar Bay Ribbon cutting, which was a huge project, nearly \$11M in restoration after the “Father’s Day Flood”. The snow community is excited to see this portion of the trail system reopening. The workgroup discussed that clubs should not use snow equipment for dirt. The workgroup asked the DNR to Investigate changing the snow dates from Dec. 15 to April 15. Law Enforcement Division (LED) questioned the effectiveness of online safety classes for youth, thinking a field day should be incorporated into the structure. Trail 2 is back open. Miners Castle is still ongoing. Verizon Fleet Management is being tweaked. The DNR snow transition is in year 3.

Off Road Vehicle Advisory Workgroup (ORVAW) – Mike Maves (report attached)

The workgroup received a response from the DNR regarding grant funds and equipment purchasing, which it is legal. The workgroup will form an equipment purchasing subcommittee to look into parameters. House Bill 4515 passed (removed sunset). A proposed alpha sign trail system was discussed to expand in the lower peninsula. The ORV officer training House Bill 4021 passed (officers are required to take a 40-hour course if enforcing ORV).

2024 MEETINGS

- MARCH 26 (GRAYLING)
- JUNE 25 (RAM CENTER)
- SEPT. 25 (LANSING)
- DEC. 10 (GRAYLING)

CLOSING/ROUND ROBIN

Rich Williamson feels good progress is being made at the last couple of MTAC meetings.

Jenny Cook can refer a State of Michigan ambassador photographer if anyone has needs for photos.

Mike Maves concurred that great progress is being made at the MTAC meetings and the Trails Summit was good. He is looking forward to another summit meeting again.

Karen Middendorp also mentioned the Trails Summit was excellent and it was great to see people working together and getting to know each other. Let's keep the partnerships going.

Amy Scharmen-Burgdolf stated that MTAC and the subcommittees are moving in positive direction.

ADJOURNMENT

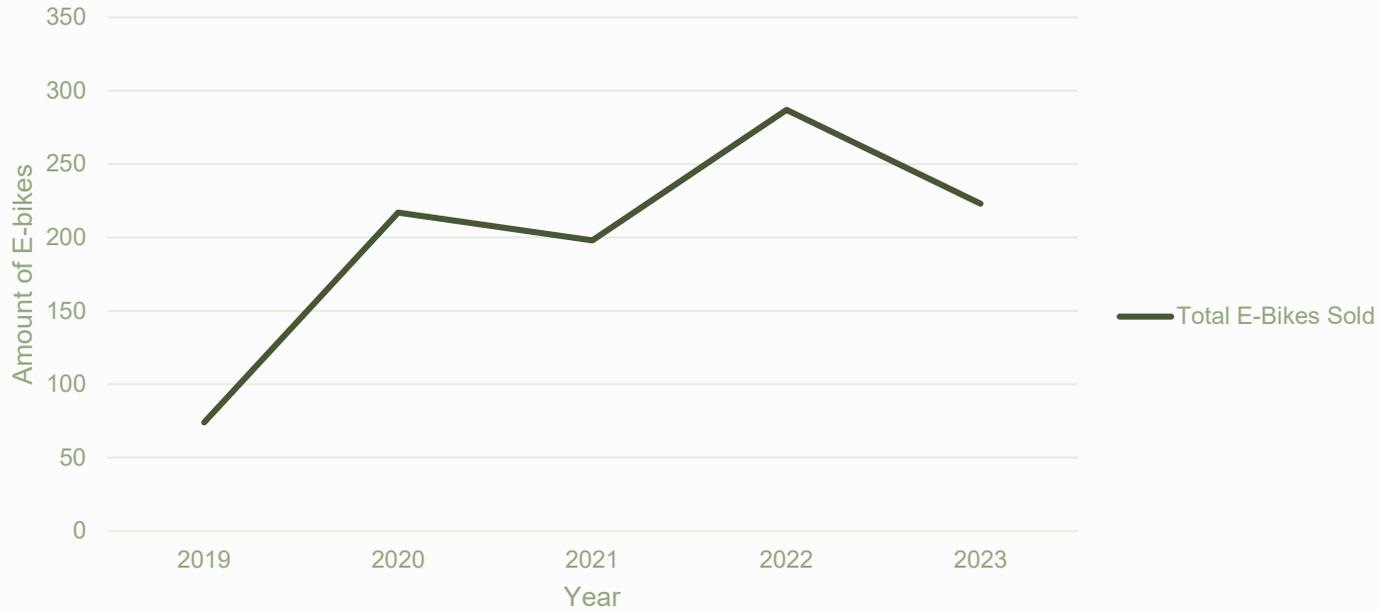
Meeting adjourned 5:04 p.m.

What has e -bike user growth been in Michigan?

How can we make Michigan friendlier to e-bike users?

Benchmark

E-Bikes Sold in Michigan from 2019-2023



Regulating E -bike Use

- Focused on uses of e-bikes and environmental impacts.
- Signage on trails for permissible e -bike class use.
- Incentivize helmets for users under 18.
- Permitting class 1 E-bikes on non-motorized linear trails.

Additional E -bike Policy Recommendations

- Incentivize helmets for all users under 18 years old.
- Require registration of e-bikes; fee similar to Michigan's Recreation Passport.
- Bike dealers would add a registration fee with the purchase of an e -bike.
- Registration of e-bikes would be similar to ORV stickers.

New Considerations for MTAC

- Opening a position for Michigan Students to begin implementing new ideas from the up -and-coming generation.
- Create a new sub-council that will focus directly on e -bikes and other electric vehicle users.

Introduction

Michigan is known for its beautiful natural scenery and recreational opportunities such as the Great Lakes, hiking trails, and parks. Trails have historically been a means of directional transportation for early human settlement. Today, most of these trails have been rebuilt for recreational enjoyment by Michiganders and other travelers who are interested in experiencing Michigan's historic trails, freshwater lakes and scenic landscapes. New and historic trails account for over 13,000 miles of interconnected recreational paths available to the public.

As we start to experience the effects of climate change, there is an ever growing importance on the emphasis in preserving Michigan's Natural resources while providing more sustainable means of recreation and transportation. Some of Michigan's most popular destinations include Mackinac Island, Porcupine Mountains, Sleeping Bear Dunes and Pictured Rocks. These top travel destinations bring in millions of dollars annually making it a crucial asset to Michigan's economy. These destinations also contain many hiking and biking trails for locals and visitors to enjoy, and have increased in popularity over the years. Being that trails can be enjoyed by anyone and everyone, people of all ages, backgrounds, identities, and family dynamics are welcome to come as they are to enjoy scenic Michigan trails, making trails an accessible activity for all.

In addition to natural resources, Michigan is home to twelve native tribes, and these native lands hold a rich history when it comes to the topic of its historic trails. The Heritage trail, being one of Michigan's more notable trails, was used by Native American as a hunting route where they followed migrating animals, in addition to native and the French settlement for fur trading in the early 1800's. Today, it's now a combination of 4 different trails that consist of over 140 miles in total. Not only is this a recreation destination, but a program that strives to connect people with the natural and cultural heritage that resides there. The goal is that trail users can develop a deeper understanding and reciprocity for the landscapes just as the original peoples who call it home.

While trails are a resource that don't require much human care, there are still various places such as maintenance, landscape care, designing, planning, trail and park attendants, and advertising where finances are a necessity. The upkeep of many trails owned by the state and local governments, depends on allocations from multiple sources. Federal and state funding programs, private donors, park passes and other recreational activity licensing and fees are all examples that aid in keeping trails open and safe to the public year round. Recognition of the importance of preserving Michigan's resources has come with an increase in this funding for Michigan trails and parks. Over the past few years the state was able to allocate 250 million in federal COVID-19 relief funding towards trails as part of the American Rescue Plan Act of 2021. The goal of this funding was to address decades-long backlog in maintenance and public concerns within Michigan state parks. However, this funding is limited, and does not address all needs of the parks and trails in Michigan. For this reason, it is important to determine which trail projects will be most sustainable to focus funding on in the future, impactfully and economically.

Desired Outcomes

For this study, trail sustainability was defined as minimizing trail maintenance costs (both human and economic) while ensuring that the community utilizes the trail as a positive resource.

There were 5 desired outcomes from this study. These outcomes had varying degrees of success, but overall allowed us to make recommendations for the state as a whole regarding next steps in determining the sustainability of trails in the state. The desired outcomes were as follows:

1. Use estimates on 5 different user types: hiking, biking, equestrian, snowmobile and ORV (User types should be categorized into one of 5 different use levels: low, below average, average, above average, or high).
2. Assessment of trail mileage and condition data.
3. Determine the sustainability and sufficiency of trails of each type throughout the state.
4. Determination, along with recommendations, should be made for each of the regions in the state.
5. Any other relevant data, emerging trends, or determining factors should also be presented.

To find this information and make educated estimates, we contacted nearly 100 organizations across all regions of the state, including planning organizations, parks and recreation departments, trail organizations, and others. Of these groups, just three were able to provide us with trail user counts. The most thorough study of trail usage that we were able to obtain was completed by the Grand Valley Metro Council and studied trail counts in the Grand Rapids area. This study is used as a case study later in this report.

Other data was able to be compiled through analysis on the Michigan DNR's website. In examining the data from the DNR, we found a network of trails showcased on their website, totaling over 13,400 miles of state-designated trails, encompassing 4,020 miles of hiking trails across Michigan. Light analysis and research reveals that trail usage, conditions, user demographics, and signage vary significantly between each trail, with some trails even remaining unidentified. This diversity highlights the need for a nuanced and tailored approach in assessing and addressing the distinct characteristics of each trail. Regarding user demographics, the available data is limited, so it is recommended to enhance data collection to ensure a more comprehensive understanding of trail user profiles. More about this recommendation will be discussed later in this report.

Research Plan

We approached the capture and analysis of trail user data, trail types, trail mileage, and trail condition to determine trail sustainability in the following way:

1. **Gather Existing Data:**

- **Outreach and Online Research:** Obtain any available data on trail use, condition, and types from the Michigan DNR website or local databases. This may include GIS data, user counts, maintenance records, and environmental impact studies. During the initial phase of our research, we encountered significant challenges in gathering the necessary data from various organizations responsible for the management and oversight of trails within the designated regions of Michigan. Despite sending numerous emails to each organization seeking information on trail usage, conditions, and sustainability metrics, our inquiries often went unanswered. In instances where we did receive a response, the communication typically resulted in a redirection to standardized forms or alternative contact points, which often failed to yield useful information.

2. **Data Analysis:**

- **User Types and Use Levels:** Analyze data, if we have any, to categorize users into the five types (hiking, biking, equestrian, snowmobile, ORV) and determine their use levels (low to high).
- **Trail Mileage and Condition:** Review the collected data on trail mileage and condition, identify trends, and evaluate against benchmarks for sustainable trail capacity.

3. **Sustainability and Sufficiency Evaluation:**

- **Normal Capacity:** Determine the capacity of the trails and how current use levels compare to that capacity.
- **Environmental Impact:** Assess the environmental impact of the trails, considering factors like biodiversity, soil erosion, and water quality.
- **Infrastructure and Maintenance:** Evaluate the current infrastructure and maintenance practices to identify any gaps or areas for improvement.

4. **Regional Analysis and Recommendations:**

- **Regional Needs and Priorities:** Each region may have different needs and priorities based on the type of trails, user demographics, and environmental conditions.
- **Strategic Recommendations:** Develop tailored recommendations for each region, which could include trail enhancements, new trail development, or decommissioning of unsustainable trails.

5. **Report Development:**

- **Compile Findings:** Bring together all the data, analyses, and insights into a comprehensive report.
- **Actionable Insights:** Ensure that the report provides actionable insights and clear recommendations for each region.
- **Predictions for Future Use:** Based on current trends and data, make predictions about future trail use and needs.

6. **Monitoring and Follow-Up:**

- **Establish a Monitoring Plan:** Set up a system to monitor trail use and condition going forward.
- **Adjust Based on Feedback and New Data:** Be prepared to adjust recommendations and strategies based on ongoing feedback and new data.

Due to a lack of collected data, we were unable to completely study the sustainability of individual trails in regions or provide predictions for future uses. However, this lack of data revealed a strong desire for data in trail groups and planning groups across the state. The collection of this trail data would allow for better analysis of the true sustainability of specific trails across the state, as well as reveal the general state of trails in Michigan and how that is changing from year to year.

Regional Profiles

Western Upper Peninsula

Each county within the western UP offers unique trail experiences, often influenced by the region's rugged and remote landscapes. A more detailed look at the trail networks in each county shows that although counties are similar, they each offer their own specialties:

- Keweenaw County: Known for its breathtaking natural beauty, Keweenaw offers a mix of hiking, biking, and snowmobiling trails. The trails here often provide scenic views of Lake Superior and traverse through dense forests and along historic mining sites, reflecting the area's rich cultural heritage.
- Houghton County: Houghton's trails are a blend of urban and wilderness experiences, with paths that cater to mountain biking and cross-country skiing enthusiasts. The Michigan Tech Trails and the Nara Nature Park are notable examples, offering well-maintained routes for various skill levels.
- Ontonagon County: Home to the Porcupine Mountains Wilderness State Park, Ontonagon boasts some of the most picturesque hiking trails in the Midwest. The region is a haven for backpackers and day hikers, with trails winding through old-growth forests and along Lake Superior's shoreline.
- Gogebic County: Gogebic's trail network is renowned for its extensive snowmobiling routes. The county also offers exceptional hiking and mountain biking trails, including paths around the Lake Gogebic area, which offer stunning natural vistas.
- Baraga County: This county is known for its rugged trails, which are popular among hikers, mountain bikers, and ATV riders. The region's trails often traverse through remote areas, offering an authentic wilderness experience.
- Iron County: Iron County's trails highlight the region's mining history and natural beauty. The Iron County Heritage Trail, for example, is a multi-use path that provides a unique historical and cultural journey through the region.
- Dickinson County: Here, the trails cater to a variety of outdoor activities, including hiking, biking, and snowmobiling. The Fumee Lake Natural Area offers serene hiking trails, while the Pine Mountain Resort has trails for skiing and mountain biking.
- Marquette County: Known for its extensive network of biking and hiking trails, Marquette offers routes like the Noquemanon Trail Network, which cater to both casual and competitive outdoor enthusiasts.
- Menominee County: This area offers trails that are less rugged but equally scenic, suitable for family outings and leisurely hikes. The region's trails often run along rivers and through historic towns.
- Delta County: Delta's trails are diverse, including routes along the shores of Lake Michigan and through the Hiawatha National Forest. The trails here are suitable for hiking, biking, and in some areas, horseback riding.

This network of trails is not just a series of paths, but rather a lifeline that connects the sparsely populated communities of the UP. It's a testament to the region's extremely rural essence—a place where nature isn't just a backdrop but a central character in the story of the UP. The trails are more than just routes through the wilderness; they are threads that bind the fabric of local culture, economy, and the deeply cherished way of life that is uniquely Upper Peninsula.

Eastern Upper Peninsula

The Eastern Upper Peninsula (EUP) contains extensive public recreation lands that provide a diversity of trail opportunities for hikers, bikers, equestrians, snowmobilers, and ORV riders. Major trail systems cross the Hiawatha National Forest, Pictured Rocks National Lakeshore, and Grand Island National Recreation Area, as well as Michigan DNR lands, state forests, and state parks and recreation areas.

Hiking & Biking

In addition to the 230+ miles of trails in the Hiawatha National Forest, the EUP offers hiking and biking trails in places like Tahquamenon Falls State Park, Point Iroquois Lighthouse, Newberry State Forest, and various wildlife areas and recreation lands along the Lake Superior shoreline. Several state forest campgrounds also connect to interior hiking/biking trail loops. In addition to short scenic trails, the North Country National Scenic Trail passes through the EUP for almost 100 miles. Significant regional trails in the EUP are mostly rails-to-trails projects, and include, but are not limited to:

- The Haywire Trail, the oldest rail-to-trail project in Michigan. This multi-use trail stretches 33 miles from Manistique to Shingleton and is open to ORV and snowmobile usage as well as hiking and biking.
- The Trout Lake-St. Ignace Trail, a 26 mile trail through the Hiawatha National Forest. This trail is open to all uses, including hiking, biking, equestrian, mountain biking, ORV, and snowmobile. It is gravel surfaced and is lightly trafficked as it runs through a very rustic portion of the EUP.
- The Soo Strong Trail, a 34.1 mile dirt trail from Sault Ste. Marie to Eckerman. This trail is also shared between hikers, bikers, snowmobile, ORV, and the occasional equestrian. It is very lightly trafficked except between Brimley and Sault Ste. Marie where it passes through multiple nature preserves.

Equestrian Trails

Equestrians are allowed on many trails throughout the EUP, including those listed above, however there are not as many trails specified for equestrian use. The majority of trails built specifically for equestrian use are located within the Hiawatha National Forest and include the 11 mile Oakwood Horse Trail in Munising, and the 26 miles of trails at Pine Marten Run in the Steuben area. These trails are generally considered Central Upper Peninsula however, and there are very few equestrian-focused trails east of Manistique.

Snowmobile Trails

The EUP is a premier snowmobiling destination thanks to extensive trails in the Hiawatha Forest that connect to thousands of miles of area trails groomed by snowmobile clubs, providing access to spots across the entire upper peninsula such as Drummond Island, Paradise, Whitefish Point, Trout Lake, and more. The trail routes listed in the Hiking & Biking section of EUP profile also play host to high traffic snowmobile routes.

ORV Trails

The UP offers prime ORV trail riding with 200+ miles of purpose-built trails and 2-track gravel routes spread across multiple State Forests, DNR Land, and 330+ miles in the Hiawatha National Forest concentrated near Newberry, Rudyard and St. Ignace. Permitted ORV use through wetlands, logging roads, shared-use trails (such as the trails listed in Hiking & Biking), and other areas also effectively expands mileage.

Northern Lower Peninsula

In pursuit of estimating trail sustainability across Michigan, delving into the following counties: Charlevoix, Antrim, Kalkaska, Missaukee, Manistee, Benzie, Leelanau, Emmet, Grand Traverse, and Cadillac. We have received direct feedback from Grand Traverse County, highlighting their practice of collecting fundamental trail traffic data for their trails but that doesn't include various aspects such as trail conditions, user demographics, and other relevant points. In addition, Leelanau provided data that Leelanau County does not manage any improved trails within its parks system at this time. However, the Northeast Michigan Council of Governments is working on the North Region Active Transportation Plan and Leelanau Land Conservancy have trail counters installed on their properties, including in Palmer Woods, the only mountain biking trail in Leelanau County.

The primary objective is to provide detailed insights into trail usage, conditions, and user demographics for hiking, biking, equestrian, snowmobile, and ORV enthusiasts.

Leelanau County

In Leelanau County, an approach taken to understand trail dynamics is shown through the initiation of an Active Transportation Plan. This plan includes a survey facilitated by the Metropolitan Planning Organization (MPO), currently underway. The survey serves as a valuable opportunity to gather insights into user preferences and expectations, ensuring that community input is considered in the strategic planning of transportation and trail systems within the county.

Traverse City

In Traverse City, an overview of trail activity includes data from Civic Center Park, revealing consistent usage on its 1-mile paved walking track. While basic trail traffic information is available, there is a recognized need for more detailed user insights to enhance categorization. Exploring specific trails, the Maple Bay Natural Area boasts approximately 2 miles of

well-managed trails with accompanying insights. Meanwhile, Power Island presents a vast expanse featuring over 5 miles of hiking trails predominantly used for recreational camping. Recognizing the impact of seasonal use on trail conditions, periodic assessments are recommended for ongoing maintenance and improvement efforts.

Grand Traverse Natural Education Reserve

At the Grand Traverse Natural Education Reserve, an insightful overview of trail dynamics includes Medalie Park, acting as the southern trailhead for the Boardman Lake Loop Trail, which has consistently attracted an average of 650 daily visitors since July 2022. The reserve boasts a diverse 505-acre landscape, encompassing marsh, swamp, upland forest, creek, and river, providing habitat for various wildlife.

Traverse Area Recreation and Transportation Trails (TART Trails)

TART operates as a dedicated trail organization in Traverse City, Michigan. The TART Trails network consists of several multi-use trails in Grand Traverse and Leelanau counties and a cross-town bike route. Their mission is to provide and promote a trail network that enriches the people and the communities throughout the region. TART Trails facilitates activities such as walking, running, and cycling, connecting diverse regions across Traverse City. The organization is committed to ongoing trail expansion and development, collaborating with local entities such as governments, businesses, and community members to establish an extensive and better interconnected trail system.

Information could be found on their website but to obtain the most current and detailed insights, it's encouraged to reach out to the organization or even look into conducting tests to get specific information with collaboration with the organization.

Estimated Prediction on User Types and Levels:

In estimating user types and levels, hiking is anticipated to see high usage in natural reserves and moderate usage in developed parks. Biking is expected to have high activity in Traverse City, with an average to above-average presence in other regions. Equestrian trail access is limited, potentially low in most areas, but where utilized, there is high repetitive usage. For snowmobiles and ORVs, usage is generally anticipated to be low across most trails, except for specific seasonal locations designated for snowmobiles.

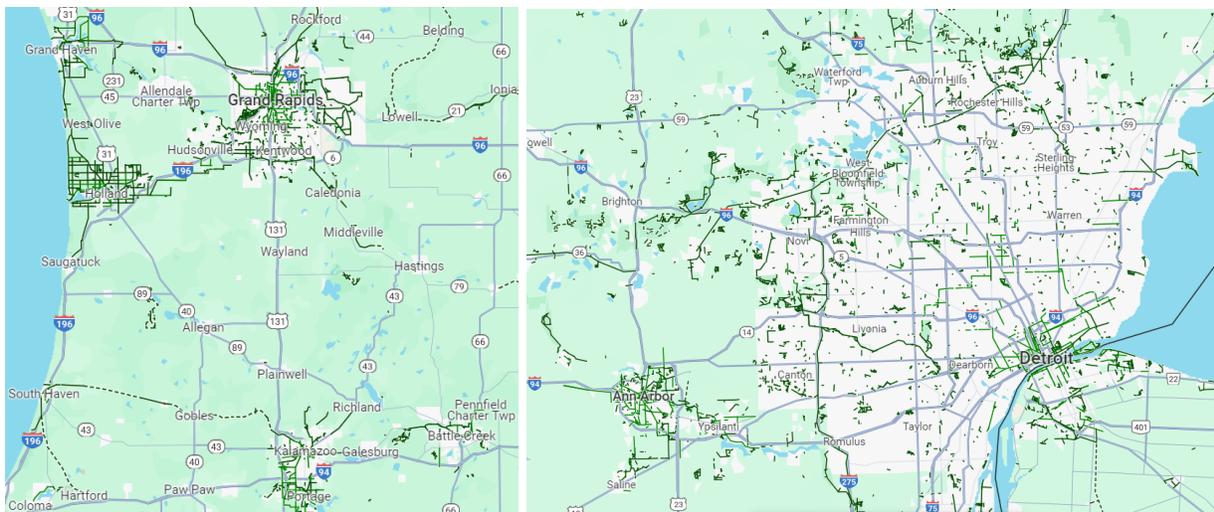
Southwest & West Michigan

Southwest Michigan has a large network of trails, wide shoulders for bikes, and other connective pedestrian infrastructure. For example, in Berrien County, there are walking paths, hiking, hiking/cross country skiing, hiking/ cross country skiing/ mountain biking, and lastly hiking/ mountain biking trails. There are no equestrian, snowmobile, or ORV trails in Berrien County. There is a total of 170 miles of Wide Shoulder Trails, a total of 23.89 miles of Water Trails (with recorded mileage), a total of 81.1 miles of shared use paths, one Cycle Track that is 1.3 miles long, and the total mileage of Bike Lanes are 36.15 miles.

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Berrien County isn't the only county with this high density of trails and bike infrastructure. Ottawa County has more than 100 miles of roadside trails throughout the county from Grand Haven to Saugatuck, and connecting to Grand Rapids. They are also working to connect trails further by building the Idema Explorers Trail along the entire length of the Grand River from Grand Rapids to its terminus in Grand Haven. These trails are non-motorized, and ORV and equestrian use trails in the area are limited.

Overall, Southwest and West Michigan seem to find trails to be trendy, and many townships throughout this region have drawn up intensive plans to develop paved non-motorized trails along roads, connecting their own neighborhoods and flowing into neighboring trail networks. This is especially visible when viewing trails on Google Maps. Although the Google Maps trail networks are far from complete, they are generally accurate representations of where trail networks exist versus where trail segments exist. When viewing Grand Rapids, Holland, and Kalamazoo for example, these trails are very interconnected and are somewhat spread out. On the other hand, when viewing the Metro Detroit area, trails appear much more segmented. This could be attributed to differing approaches to trail building, or differences in funding and community support.



Examples of some of the primary non-motorized trails in West Michigan include, but are not limited to:

- The White Pine State Trail is one of Michigan's longest continuous rail-trails, stretching 92 miles from Cadillac to Comstock Park. This trail is mostly paved non-motorized, however there is a 22-mile gravel segment. Additional connection trails are being constructed to connect this trail to the rest of the Grand Rapids trail network.
- The Hart-Montague State Trail, Michigan's first paved rail trail, travels 22 miles parallel to US-31 as it weaves, connecting the towns of Hart, Mears, Shelby, New Era, Rothbury, and Montague. At the south end of the trail, it connects to the Berry Junction Trail, which is uninterrupted on its route to Muskegon. This trail is popular among tourists and locals, and is well maintained by the DNR.

- The Kal-Haven Trail, a segment of the Great Lake to Lake Trail Route 1, and a Michigan Heritage Trail. This trail stretches 34.5 miles from South Haven to Kalamazoo on both paved and limestone segments, passing through small towns who have seen a large economic boost from the popularity of the trail.
- The Fred Meijer Mid-West Michigan Trail Network, which includes the Heartland Trail, Grand River Valley Rail Trail, Flat River Trail, Clinton-Ionia-Shiawassee Trail, Berry Junction Trail, Kenowa Trail, M-6 Trail, Millennium Park Trails, Pioneer Trail, Standale Trail. This trail network is extensive, well maintained, and generally a highly used West Michigan resource.

West Michigan also caters to mountain bikers, ORV riders, and equestrian users within the state parks and recreation areas. Parks such as Yankee Springs, Silver Lake, Fort Custer, and the Manistee National Forest near Newaygo all provide excellent resources for at least one of these trail groups, with most having options for all unconventional trail users. These are maintained mainly by local groups, with the DNR and US Forest Service contributing as well.

Snowmobiling is also strong within West Michigan, with trails running through nearly all West Michigan counties. These trails are highly connected to each other, and are primarily used for recreation rather than for travel as is the case in the UP and farther north.

Capitol Region

The Capitol Region of Michigan, includes Clinton, Eaton, and Ingham counties. This area is known for its diverse range of recreational trail systems, catering to various activities like hiking, biking, equestrian riding, snowmobiling, and off-road vehicle (ORV) use. The region's trails offer a mix of experiences, from urban to rural settings, passing through forests, farmlands, and along waterways, reflecting the region's varied geography and demographics.

Hiking Trails

The hiking trails in the Capitol Region range from urban to more secluded rural paths. Key trails include:

- Lansing River Trail (12 miles): This trail, popular for its accessibility and scenic views, connects several urban areas in Lansing. It's mostly flat and suitable for casual hikers.
- Sleepy Hollow State Park (17 miles): Offering a more rugged, natural experience, this trail winds through dense forests and open meadows, providing a serene escape from urban life.
- Ionia State Recreation Area (7 miles): This trail features a mix of forest and open land, attracting hikers interested in nature and wildlife viewing.
- Various County Parks: Smaller trails in these parks often provide quick, easy access to nature, particularly in more suburban or urban areas.

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Biking Trails

Biking trails in my Region cater to both road cyclists and mountain bikers, with trails ranging from urban paved paths to challenging off-road tracks:

- Lansing River Trail & Fred Meijer Clinton-Ionia-Shiawassee Trail (41 miles): These paved, multi-use trails are popular among road cyclists and commuters, offering scenic urban and rural landscapes.
- Rose Lake Recreation Area (6.5 miles): These mountain biking trails are fairly popular, being just outside of the urban center of Lansing. They run through woodlands and are relatively well maintained.

Equestrian Trails

Equestrian trails my Region are limited but include:

- Sleepy Hollow State Park (8 miles): This sandy trail is one of the few in the region dedicated to horseback riding, winding through a varied landscape.

Snowmobile Trails

The 250+ miles of snowmobile trails in the region highlight its winter tourism potential:

- Connecting Various Towns: These trails link communities like St. Johns, Ovid, and Maple Rapids, offering a mix of forest and open landscapes. Their usage is highly dependent on annual snowfall.

ORV Trails

Off-road vehicle use is restricted in my Region, with limited legal areas:

- Rose Lake Wildlife Area & Maple River State Game Area (Ingham County): These are among the few locations allowing ORV use, often on two-track roads, providing a controlled environment for this activity.

Regional Connectivity

- Trail Networks: The trail systems in these counties are interconnected, offering a seamless experience for users. For example, the Lansing River Trail extends across county lines, connecting urban and rural landscapes.
- Diversity of Landscapes: From the dense forests in Sleepy Hollow State Park to the urban riverfronts along the Lansing River Trail, and the agricultural expanses of Clinton County, the region offers a rich variety of landscapes.
- Recreational Variety: The trails cater to a wide range of activities - hiking, biking, equestrian, snowmobiling, and ORV use, reflecting the diverse interests of the region's populace and visitors.

Flint & Thumb Region

Huron County, located in the state of Michigan, has a rich history and a diverse landscape. As of the 2020 Census, the population was 31,407, showcasing a slight decrease over the years. The

county was established in 1840 and has the county seat in Bad Axe. The region is noted for its heavy agricultural focus and generally flat terrain with some rolling hills.

Geographically, Huron County is surrounded by both land and water, bordering Sanilac and Tuscola counties and also having water boundaries with Arenac and Iosco counties. This unique positioning contributes to its natural beauty and resources. The county's total area is quite extensive, with a significant portion covered by water, primarily Lake Huron and Saginaw Bay.

Demographically, Huron County is predominantly rural, with a population density of 39.6 per square mile. The majority of its residents are of European ancestry, with significant German and Polish communities. The population is spread across various age groups, with a notable percentage of individuals above the age of 65. The median household income and per capita income in the county suggest a relatively modest economic status for its residents.

In terms of trails and natural attractions, Huron County offers a variety of outdoor experiences. The Blue Water Bridge, Fort Gratiot Lighthouse, and Pointe Aux Barques Lighthouse are some of the prominent landmarks. These sites not only serve as historical markers but also provide scenic views and recreational opportunities like hiking and fishing. The Pinnebog River adds to the county's natural allure, offering peaceful spots for fishing and wildlife observation. Additionally, Point Farms Provincial Park is a notable destination for outdoor activities, encompassing hiking trails, bird watching, and camping opportunities.

Overall, Huron County's blend of historical significance, agricultural landscape, and natural beauty makes it a distinctive region in Michigan, appealing to both residents and visitors seeking a rural and nature-rich lifestyle.

Central Michigan and Saginaw Bay Region

Isabella County

In Isabella County, Michigan, outdoor enthusiasts can enjoy a variety of trails that cater to different activities

- **Pere Marquette Rail-Trail:** This trail is renowned for its well-maintained, hard surface, suitable for walking, jogging, biking, and in-line skating. The trail follows the route of the old Flint and Pere Marquette Railroad, which was integral to the region's logging industry in the past century. It's a traffic-free and ADA accessible park, equipped with parking areas, restrooms, and other facilities along its route. This trail provides a safe and convenient space for participants of all ages.
- **Other Hiking Trails:** Isabella County offers a range of hiking trails suitable for various outdoor activities. These trails provide opportunities to explore the natural beauty of the county, which includes the rolling Chippewa Hills and Lake Isabella. The county's rich natural setting makes it ideal for hiking, fishing, and camping.
- **Natural Attractions:** Beyond its trails, Isabella County is known for its picturesque landscapes and outdoor activities. The county features Central Michigan University, unique geographic features like the Chippewa Hills, and Lake Isabella. It's a great destination for those interested in agriculture, with many farms and farmers' markets, as well as abundant outdoor activities like hiking trails and fishing spots. These trails and

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natural attractions make Isabella County a great destination for those seeking outdoor adventures and a connection with nature.

Midland, Michigan, boasts a variety of trail systems that cater to different outdoor activities including hiking, biking, cross-country skiing, and more.

- Trail Systems in Midland: The city has a diverse range of trails:
- City Forest Trails: Midland City Forest offers two distinct trail systems: one for mountain biking and another for hiking and cross-country skiing. The mountain biking trails total 13.1 miles, while the hiking trails cover 7.92 miles. During winter, the City Forest also provides groomed cross-country ski trails spanning 7.58 miles.
- Grand Curve Trail: A 4.25-mile paved trail starting from the Tridge and running southeast around the Grand Curve, ending at Patrick and Illinois.
- Chippewa Trail: A 4-mile paved path extending from the Tridge southwest to the Chippewa Nature Center.
- Pere-Marquette Rail Trail: This paved trail begins at the Tridge and stretches for 30 miles to Clare. It is part of the Pere Marquette Rail-Trail, which covers 22 miles in Midland County, offering a flat, scenic route ideal for various activities.
- Chippewa Trail Details: The Chippewa Trail is a 3.5-mile, paved, point-to-point trail from downtown Midland to the Chippewa Nature Center. It's known for its flat terrain and is suitable for family outings, whether on bicycles, in-line skates, or on foot. The trail starts at the unique Tridge, a three-way wooden footbridge, and ends at the nature center, offering an educational experience with interpretive panels along the way. These trails provide a mix of scenic natural beauty and recreational opportunities, making Midland an attractive destination for outdoor enthusiasts.

In Bay City, Michigan, there are numerous trails that cater to a wide range of outdoor activities:

- Bay City State Park: This park, once the most popular state park in Michigan, offers a variety of trails, including footpaths and multi-use trails. The park encompasses over 2,200 acres, including the Tobico Marsh. Trails within the park include the short Lagoon Trail and Chickadee Nature Trail, the Frank N. Andersen Trail, and within Tobico Marsh, the Big Loop Trail and the Little Loop Trail. These trails are popular among hikers, mountain bikers, and Nordic skiers.
- Bay County Trails: The Bay County Riverwalk and Railtrail provide 9.5 miles of non-motorized pathways along the riverfront in Veteran's Memorial Park and through urban, rural, and residential areas of Bay City. The trail is handicapped accessible and offers amenities like restrooms, water, playgrounds, picnic areas, and boat launches.
- Great Lakes Bay Regional Trail: This nearly 100-mile trail network includes the Pere Marquette Rail Trail, the Saginaw Valley Rail Trail, and the Bay City Area Riverwalk/Railtrail. It connects to several area trails and is part of the Iron Belle Trail, the longest designated state trail in the nation. The trails offer scenic views and a variety of activities including walking, running, biking, and in-line skating.
- General Trail Information: Bay City and its surroundings offer more than 36 trails covering 360 miles, suitable for activities like walking, biking, in-line skating, and fishing. The trails range from easy walking paths to more challenging bike trails, accommodating all levels of outdoor enthusiasts. These trails in Bay City provide diverse experiences,

from scenic marshland walks to extensive biking and hiking paths, making the area a great destination for outdoor activities.

In Gratiot County, Michigan, there are several trails offering a variety of recreational activities:

- Pine River Canoe Trail: This is a 30-mile water trail winding through open fields and floodplain forests in Gratiot County. The trail starts at Lumberjack Park off Madison Road and ends near downtown Alma. The Pine River is generally gentle, with some swift sections, and is best paddled in spring and fall. Some portages might be necessary due to fallen trees. This trail is a great choice for those looking to experience a serene paddling adventure in a natural setting.
- Fred Meijer Heartland Trail: This trail covers 29.5 miles in Gratiot and Montcalm Counties. It caters to a variety of activities including hiking, cross-country skiing, mountain biking, and inline skating. The Fred Meijer Heartland Trail provides an excellent opportunity for those seeking to explore the natural beauty of the area on foot or wheels.

In Arenac County, Michigan, the main trail opportunity is the Arenac Blue Water Trail. This trail, begun in 2013, is designed to offer kayakers and canoeists access to wildlife viewing along the northern coastline of Saginaw Bay. It's a haven for birdwatching and fishing, with species like walleye, lake trout, steelhead, suckers, and bass. The trail is a wilderness experience with limited amenities, and users are advised to plan their trips carefully. Safety is crucial, especially due to the potential for quick changes in weather on the Great Lakes.

In Gladwin County, Michigan, a notable trail project is the Trail of Two Cities. This trail, which is still under construction, aims to connect the cities of Gladwin and Beaverton. Currently, there is a 2.5-mile trail running along the Cedar River in Gladwin, and additional sections are being developed. This trail, once completed, will enhance recreational opportunities in Gladwin County, providing a paved, non-motorized path suitable for activities like walking, running, rollerblading, and biking. It also meets accessibility standards. The project is a key initiative to promote healthy living in the county and is expected to attract more visitors and outdoor enthusiasts to the area.

In Clare County, Michigan, there is a rich array of outdoor recreational opportunities, including a variety of trails suitable for different activities. The county boasts over 56,000 acres of state forests, 300 miles of rivers, and over 18 public access lakes. For trail enthusiasts, there are 28 miles of snowmobile trails and several notable pathways:

- Pere Marquette Rail Trail: This is a 30-mile paved, flat, scenic trail that runs between Midland and Clare, Michigan. It is recognized as one of the twenty-five Rails to Trails Conservancy Hall of Fame trails in the US. The trail offers an excellent opportunity for biking and walking in a picturesque setting.
- ORV/ATV and Snowmobile Trails: In northern Clare County, there are over 55 miles of ORV trails for larger ORVs and hundreds of miles accessible by quads or smaller traditional ORVs. The Leota ORV trailhead, managed by the Michigan DNR, provides access to these trails. Additionally, the Fur Farm snowmobile trail starts just north of the city of Harrison and joins up with the Leota Trail.

- Hiking and Biking Trails: There are several trails for hiking and biking, including the Budd Lake Trail, a 4.2- mile pathway around Budd Lake, and the Greenpine Pathway, which offers hiking and cross-country skiing. The Mid-Michigan Community College Trail near Harrison features wooded, hilly trails open year round for various activities, including disc golf, snowshoeing, and cross-country skiing. These trails in Clare County provide a mix of urban and rural experiences, passing through towns and natural landscapes. They cater to a range of outdoor activities, making Clare County an attractive destination for those seeking diverse outdoor recreational opportunities.

Metro Detroit & Southeast Michigan

The Southeast Region of Michigan has a spread of small to large Towns across it and much of the region is considered “Metro-Detroit”. At the same time there are large rural areas between towns, with a strong farming background. Most of the trails in this region are in the more Urban/Suburban areas. This region also contains some portions of the Huron-Clinton Metroparks, which have many well-established trails which cross county lines, including into other regions. Many of the urban trails connect to the downtown portions of nearby towns. Trail sustainability in this region varies from trail to trail. The general pattern is that wealthier densely populated areas tend to have more funding and therefore better trail systems. Less wealthy communities, including many of the more rural communities, don't have access to the same resources for trail maintenance. All the same, there are many beautiful trails all across this region, each with their own history and attractions.

Significant trails in the Metro Detroit region include, but are not limited to:

- The Border to Border Trail, a non motorized trail under construction for the last several decades intended to stretch from the south-eastern border of Washtenaw County to the north-western County border. When completed, this trail will connect Ypsilanti, Ann Arbor, Dexter, Chelsea, and the Pinckney and Waterloo Recreation Areas with a single paved trail.
- The Detroit Riverfront Trail Network, one of many trails built and maintained by the Detroit Greenways Coalition, connects Downtown Detroit to Belle Isle and the Eastern Market neighborhood. These trails are well maintained and highly used. In addition, for the past 3 years in a row, the Detroit Riverwalk segment of this trail has been named the best riverfront in America by USA today.
- The Paint Creek Trail, the first non-motorized rail-to-trail project in Michigan, is one of the oldest and most visited trails in the state. With over 100,000 visitors annually, this 8.9 mile Pure Michigan Trail is a vital connection between Rochester and Lake Orion.
- The Huron Valley Rail Trail provides connections to more than 25 miles of other trails in the region as well as access to the central business districts of South Lyon and Wixom. This trail also connects to Kensington Metropark, Island Lake State Recreation Area, the Michigan Air Line Trail, and downtown Milford.
- The Clinton River Trail, a 16 mile long rail-to-trail project that connects the Macomb Orchard Trail, Paint Creek Trail, West Bloomfield Trail, Michigan Air Line Trail, and M-5

Metro Trails into a continuous network. It is also a segment of the Great Lake-To-Lake Trail Route 1, and is highly trafficked and well maintained.

- The Hines Park Trail and Rouge River Gateway Trail are a nearly 20 mile long trail running parallel to the Hines Parkway, connecting Dearborn and Northville along the Rouge River. This parkway provides a recreational area free of vehicle crossings and full of accessible opportunities.
- Downriver Linked Greenways, a system of more than 100 miles of land and water trails on the south side of Detroit. These trails, while not necessarily interconnected, provide well maintained trail access to communities across the southern metro area.

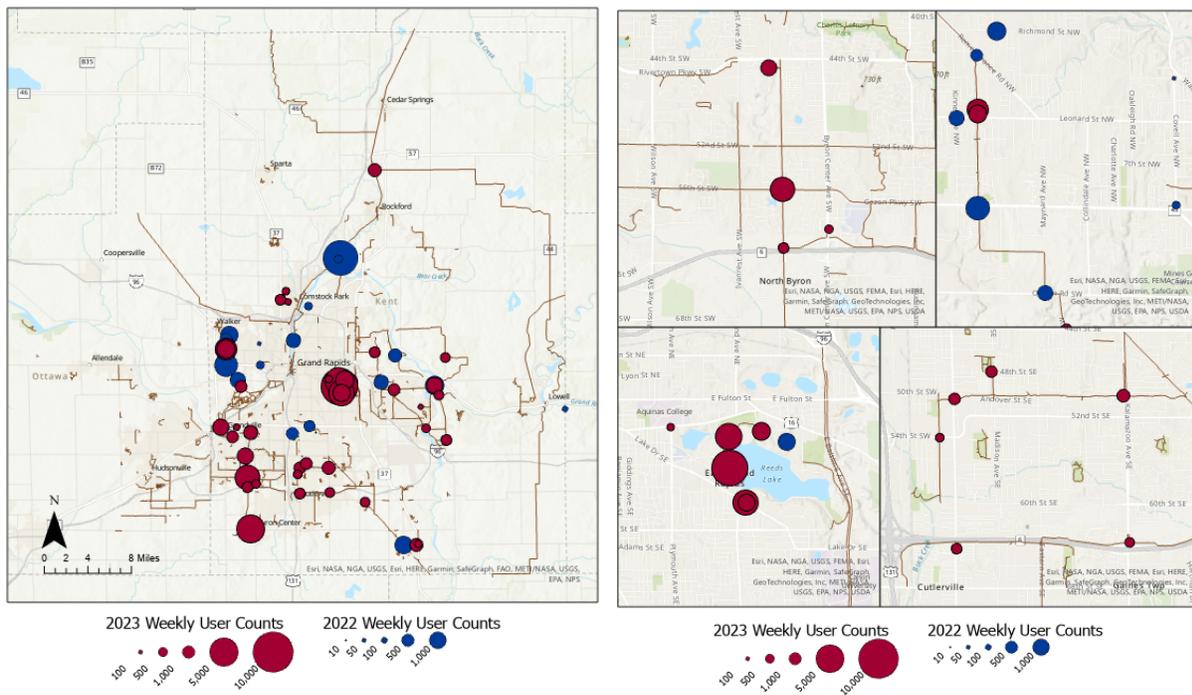
In addition to existing trails, a number of trails are planned or under construction. These trails are lengthy regional trails, and are being designed to connect resources and neighborhoods throughout Southeast Michigan. These trails include the Joe Louis Greenway, the recently proposed Huron-Clinton Metroparks Trail, the partially completed Border to Border trail, and the ambitious Great Lakes Way trail.

The Metro Detroit region also has an accessible wealth of information regarding parks, trails, and biking infrastructure through SEMCOG. [SEMCOG's open data portal](#) includes information regarding trails across the entire SEMCOG region (7 counties; Washtenaw, Wayne, Monroe, Livingston, Oakland, Macomb, St. Clair). [SEMCOG's ParkFinder web mapping application](#) includes data for different types of trails across the SEMCOG region, including: cross country skiing trails, equestrian trails, fitness trails, mountain biking trails, nature trails, paved pathways & regional trails, and tracks. SEMCOG also provides a [Bicycle Network dataset](#), which identifies roadways with existing or planned bicycle and/or pedestrian facilities or official hike-bike routes. This data from SEMCOG is extremely useful in determining trail sustainability, and will be important to have for our recommendations.

Case Study: Kent County

Kent County is a good model of what trail user data can show us about the sustainability of multiple types of trails. The Grand Valley Metro Council (GVMC) has stationed trail counters at locations across Kent County to track trail user data over the past 2 years, collecting a great deal of data. This data includes data regarding daily use over the course of a week. After some inspection, there are several factors that seem to be impacting the use of trails in the Grand Rapids area that are worth inspecting for other areas of the state. All trails inspected in this area were paved multi-use non-motorized trails. Some were asphalt surfacing while others were widened sidewalk segments. Trail counters counted user numbers, and did not track differences between bikers and pedestrians.

The maps below show the data collected by the GVMC in a GIS format, with the map on the left showing an overview of data collected in the county and the maps on the right being a closer look at some of the more condensed data collection areas from the map on the left. From top left, the maps in the compilation on the right are of Kent Trails between Wyoming and Byron Center, Hartland Trail in Walker, Reeds Lake Trail in East Grand Rapids, and the East-West Trail in Kentwood.



High Trail User Counts

There are 5 trail segments which had noticeably more engagement than other segments in the region. These segments can tell us a lot about what sustainable trails should include.

Reeds Lake Loop Trail

The Reeds Lake Loop Trail is a 4.2 mile loop trail through East Grand Rapids and Grand Rapids Charter Township. The trail runs roadside for its entire route, with portions of paved trail, boardwalk, and widened sidewalk. This trail includes the busiest segment studied, with nearly 10,000 people in a single week at the trail counter nearest to the Gaslamp District, East Grand Rapids' main business district. The remainder of the trail also had significant traffic. The Reeds Lake Trail uses pavement markings and regular trail signs to direct users along the trail route. It also provides connections throughout the East Grand Rapids community to schools, the library, community center, and a number of parks with more rustic hiking trails. This trail is located in a highly populated area, and is a major resource for the community.

White Pine State Trail (Near Belmont)

The largest individual site count in 2022 was at a site along the White Pine State Trail near Rogue River Park. This is a large trailhead situated halfway between downtown Rockford and Comstock Park. This trailhead is located in a growing suburban neighborhood and nearby businesses such as ice cream shops and breweries have developed around the trail. Interestingly, a nearby trail called the Jupiter Trail (built in 2018) recorded significantly less traffic during a similar period in 2022.

Kent Trails

Kent Trails is a rail-trail created in the mid-1980's¹ which connects Byron Center to Millennium Park and John Ball Zoo through Grandville and Wyoming. The Kent Trails system is mostly off-road although there are segments of the trail route which are along roadways. The user count is highest in downtown Byron Center at the southern trailhead. User counts are also significant at the intersection of Kent Trail and 56th Street near a small park, although counts are lower between the two. Although this trail and the Meijer M-6 Trail are both asphalt paved non-motorized trails, many other marked trails in this area (shown in the map) are widened sidewalks.

Fred Meijer Standale Trail

The Fred Meijer Standale Trail had the most consistent user numbers trailwide of these 5 trails. The Standale Trail connects 4.9 miles from the north side of Millennium Park to Walker. This trail runs through the Standale DDA as well as Walker's City Central Park and library. This trail is newer (finished in the last 15 years), and has quickly grown in popularity. Although it only connects regionally on one end, there are early-stage plans to extend the trail north to connect with the Fred Meijer Pioneer Trail, and therefore connect to the Musketawa Trail and White Pine Trail State Park.

Ada, Cascade, and Grand Rapids Townships

The townships of Ada, Cascade and Grand Rapids have built an interconnected trail network with more than 50 miles of roadside trails, parks, and nature preserves throughout Cascade,

¹ <http://www.historygrandrapids.org/article/4255/abandoned-railroads-kent-count>

Ada, and Grand Rapids Charter townships. The trail users in these townships take great pride in their trail networks, as is evidenced by the strong support for the ongoing trail expansion within all 3 communities (including almost 10 miles which have been built in the past year, and even more slated for next year)². The highest user count for a trail segment in this trail network is located near the newly completed Downtown Ada and has close proximity to multiple parks, a pedestrian centered shopping district, the Thornapple River, and the historic Ada Covered Bridge, a commonly photographed site. Although the majority of these trails did not see as many users as some of the linear trails, this can in part be attributed to the more rural nature of these trails, as well as the higher density of trails which allows trail users to spread out across the area.

Low Trail User Counts

There are two main regions which, respectively, had lower trail user counts than other trails in the West Michigan area.

Kentwood

The area around the City of Kentwood has a number of trails which received significantly lower trail use than neighboring trail networks during study periods. These trails include the East-West Trail and the M-6 Trail. Although these trails serve as useful recreation resources within the immediate community, they receive lower levels of use from comparable trails in the region. I speculate that this is due to the lack of business districts connecting and the overall lack of scenery through backyards and along a busy freeway. While the length and uninterrupted nature of these trails prove useful to long distance runners and bikers in the area (as I know from personal experience), the trails dead-end going north and west towards Grand Rapids, and consolidate into the Paul Henry Thornapple Trail going southeast towards Caledonia. This allows for minimal regional connections, and does not give the community a reason to use these trails.

Lowell

Only one trail user count has been taken in Lowell, and it is important to note there are multiple reasons that a significantly lower trail user count was likely recorded at this site. The trail count was taken at the western terminus of the Fred Meijer Grand River Valley Trail, which connects to Owosso nearly 60 miles away via the Clinton-Ionia-Shiawassee Trail. Despite this being the terminus of a regional trail, no trail parking or connections to other sites are available at this location. In addition to the inaccessibility, the Lowell Area also hosts a significant portion of the North Country trail, the southern terminus of another regional rail trail (the Flat River Trail), and has a township trail network which connects many of the local parks, nature preserves, and schools. If there is one lesson to learn from this particular data point, it is that inaccessible trails and trails which provide no meaningful connections will be much less used than other local trails if there are other local trails available.

² <https://www.cascadetwp.com/community/parks/parks-and-recreation-plans/parksplanappendix140312.aspx>

Recommendations

From the case study we completed in the Grand Rapids area, we were able to come to the following conclusions:

- Sustainable trails avoid crossing busy roads.
- Sustainable trails provide connections between destinations.
- Sustainable trails provide good access points.
- Sustainable trails connect to other regional trails.
- Sustainable trails include a destination other than the trail.
- Sustainable trails are well maintained and funded and have community involvement in maintenance.
- Sustainable Trails have local government support for the trail.

These 7 metrics point out the key pieces in ensuring a trail is sustainable for the community. If a trail does not fit these metrics, our case study supports the conclusion that it generally won't be used by the surrounding community as much and therefore will be harder to get support for when it comes to maintaining the trail and expanding on the trail network.

Development of a data-based trail rating system to help determine the most sustainable trails and create a priority ranking of needed maintenance and development. The system should incorporate variables such as trail user data, trail mileage, trail surfacing, number of trail connections to destination areas and other trails, and trail maintenance level (including factors such as local government funding for long-term maintenance, local trail volunteer involvement, and the age of the trail). Additionally, this algorithm may be more accurate if variables such as population near the trail and trail surfacing are included. A systematic algorithm to determine the score for each trail would allow items to be weighted differently, allowing prioritization of variables such as number of trail connections or local government funding.

In order to develop this algorithm, the weighting of each variable should be established through study of data and the level of importance to the DNR and trails community. However, because this data is currently not widely available, data should be collected to determine trail usage and fill in other missing variables. Additionally, this data should be made available to trail groups and planning organizations across the state. Our outreach, although yielding very little data, led to many responses expressing a desire for this data in their regions. It would be suitable for the DNR to provide guidelines on collecting this data using trail counters and other similar methods, with a request that all data be reported back to the DNR for research purposes such as this.

The use of an algorithm can allow the DNR to rank trails in terms of priority for maintenance. A separate algorithm can easily be developed for different types of trails, including trails for non-motorized multi-use, motorized trails, equestrian trails, ORV trails, snowmobile trails, mountain bike trails, and other uses. Trails which rank highly on the sustainability algorithm will be trails which show promise for expansion and are likely viewed as the top trails in the state. Trails which are ranked low by the sustainability algorithm will likely need some form of

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redesign, whether that be converting a trail of one format to one which requires less maintenance (therefore better supporting the low engagement) or redesigning the trail to better provide access and safety to trail users.

This trail rating system does not make sense to implement on a trail-by-trail basis due to the large quantity of trails in the state of Michigan. A more reasonable approach would be to study trails using a trailshed approach. A trailshed approach would take primary, cross regional trails as the main route and classify other connecting trails and sidewalks as sub-routes. Trailsheds can be thought of similarly to watersheds, which take a main route (such as the most prominent river) and classify all rivers, streams, lakes, and ditches which flow into this main arterial as belonging to that watershed. This approach reflects the approach taken in Functional Roadway Classification, where roads are designated as freeways, arterials, collectors, or local roads depending on whether a route prioritizes connecting towns and cities or it focuses on accessing properties. Traffic on roads classified as local roads generally flow into collectors and arterials, which in turn flow onto freeways and to a new region.

Overall, utilizing a trailshed rating system will allow the DNR to determine the sustainability of trails across the state as they compare to one another. Regularly collecting data and updating these algorithms will allow patterns to form over time, establishing clear impacts of trails in regions over time, and will provide a baseline for future trail building that is both sustainable and is positively impactful on its surrounding community.

SAFE PASSING SIGN

This is mocked up as an 18"x18" sign. Not over powering as size and will fit on one post.





2023 TRAILS SUMMIT

MEETING & SURVEY RESULTS

Agenda

Ride Right Safety Message

Infrastructure Closures

Permanent Trail Connectivity

Subcommittee Breakout Session

Breakout results/MTAC restructure





Introduction

We, the DNR, operate the state trail system as a whole, made up of a number of different components. You all represent one, or more, of those components. At times, concerns or accomplishments can appear to be separate or in their own silos, when in reality all our different types of trail users and uses affect each other. These two days are geared towards increasing the transparency and communication between and amongst all our advisory groups.

This two-day meeting will accomplish a number of tasks:

- Discuss the MTAC restructure resolution.
- Network with members of all our advisory groups.
- Participate in breakout sessions Saturday morning covering trail use commonalities, the volunteer program, and essentials of being on an advisory committee.

Is MTAC Meeting the Mission

IS MTAC MEETING THE MISSION.

- There is a disconnect between MTAC and the subcommittees.
- It is too lengthy of a process to make recommendations.
- A lot has changed since the statute was written; legislative language needs to be revisited.
- MTAC meetings tend to focus on nonmotorized issues.
- There is a disparity between nonmotorized and motorized needs.
- Some trail concerns are poorly understood or unsure of the why and how.
- MTAC needs to gain a better understanding of the subcommittees.
- Need liaisons between the MTAC level and subcommittee level.
- The recent new member orientation was helpful.
- MTAC is not working to its full potential.
- The general public does not know who MTAC is and what purpose they serve.
- There is not enough or correct representation.
- MTAC is broken.
- Where is the nonmotorized component in MTAC?
- Need clear missions for MTAC and subcommittees.
- All issues do not necessarily need to funnel up to MTAC.

How Would You Summarize the Mission of MTAC

HOW WOULD YOU SUMMARIZE THE MISSION OF MTAC?

- Being the voice of the people to the DNR
- Advising the DNR
- Identify trail needs prior to issues.
- Represent trails and users of trails.
- Identify who users are and how to best represent them.
- Bring commonality across groups and understanding acceptance.

Suggestions for Improving MTAC

SUGGESTIONS FOR IMPROVING MTAC.

- Have a better understanding of meeting rules and protocol (Roberts Rules of Order).
- Educate all committee members on trail proposal processes.
- Reserve agenda items to high level items like proposed policy changes, land use orders, and proposed legislation.
- Separate NAW into smaller subgroups and include a water trail group (wheeled and non-wheeled).
- Allow appropriate subcommittee to deal with subject matter issues, unless it contributes to statewide issues, pass to MTAC.
- Stop dealing with things at multiple levels.
- Formal rep on MTAC from motorized and nonmotorized.
- Find common interested to come together.
- Establish clear goals and record tracking.
- Incorporate the 10-year trail plan.
- Does MTAC need to exist? Meet once a year, similar to this summit.
- Establish a flow for information filtered from subcommittees.
- Board members need to talk to users more, establish networks.
- Does the general public know MTAC exist?
- Provide better Q&A or online directory for trails issues.
- Standardize a process to vet trails needs and issues.
- Engage clubs, volunteers, and communities for recruitment as board members terms expire.
- Designate alternatives to backfill positions.

ACTION ITEMS

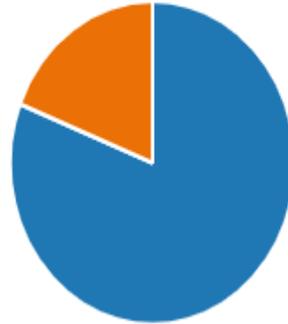
| Item 1 | Schedule a discussion with NAW about breakout into smaller workgroups |
|--------|--|
| Item 2 | Look at the recreation passport to add funding for nonmotorized trails |
| Item 3 | Create missions and goals for all advisory groups |
| Item 4 | Share the 10-year Strategic Trail Plan and schedule a review session |
| Item 5 | NAW/ETS maintenance subcommittee |
| Item 6 | Share workgroup best practices at MTAC |
| Item 7 | Improve the new board member orientation |

Survey Results

3. How useful was this event?

[More Details](#)

| | |
|------------------------|----|
| ● Extremely useful | 17 |
| ● Somewhat useful | 4 |
| ● Neutral | 0 |
| ● Somewhat not useful | 0 |
| ● Extremely not useful | 0 |



5. Did the event meet your expectations?

[More Details](#)

| | |
|-------|----|
| ● Yes | 20 |
| ● No | 1 |

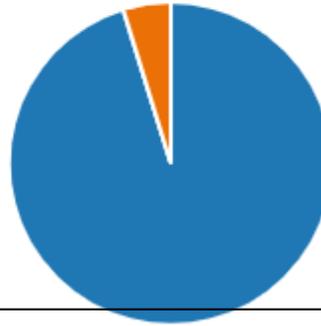


Survey Results

6. How likely would you be to attend another event like this in the future?

[More Details](#)

| | |
|-----------------------------|----|
| Very likely | 20 |
| Somewhat likely | 1 |
| Neither likely nor unlikely | 0 |
| Somewhat unlikely | 0 |
| Very unlikely | 0 |



Feedback - Survey Results

What was your biggest takeaway?

- Transparency and awareness of how others think about advisory boards
- We need missions and goals and to start working towards those in order to create effective advisory councils to move Michigan's trails forward in cooperation with the DNR

What could we improve on?

- Transparency and awareness of how others think about advisory boards
- Sharing the bigger financial picture. Share financial details of how snowmobiles fund their trails; permits, gas tax, clubs, and sponsorships. Share how much funding is needed for to maintain natural, dirt trails. Is there a surplus of ORV Permit funds? If so, what is the plan for those funds?

Feedback - Survey Results

Additional Comments

MTAC should represent all aspects of Michigan. As the Trails State, our recreational resources are vital for tourism. We need to improve our communication to ensure that we can attract more tourists. This event should be compulsory for everyone involved. Although I certainly could have had other commitments that weekend, I prioritized attending, and I'm glad I did. Being there in person is invaluable, and no amount of notes can replace that experience. We will make progress if we have the right people on the committees. If you are an advisory board member, you must also take responsibility for your position. We all understand that unforeseen circumstances can arise, but the number of attendees was too low. Where do some advisory members gain information? Do they attend club meetings? Perhaps this event could replace an MTAC meeting. Maybe these longer events can happen fewer times a year, but we might accomplish more. The chair of the advisory may not be the best person to represent the workgroups on MTAC. The advisory groups should have a say in who takes that seat and make that recommendation to the DNR. Maybe the chair doesn't have time for two committees. I also believe that the number of MTAC representatives needs to be increased. We should have two representatives from each motorized advisory board and at least 1 at-large member. But we also need more representation from the non-motorized. While I see that a board of 37 may be challenging to handle. 11 is not enough. Although I haven't been a committee member for very long, I've heard discussions about non-motorized natural surface trails in nearly every meeting. What about the paddlers and cross-country skiers? Fat tire bikes? E-bike? It is possible that the smaller user groups only need one member or 2? If the decision to divide the non-motorized groups moves forward, we should have at least one from each group on MTAC. The event was an eye-opener if you were there to have your eyes opened, it was good in my opinion.

What you do makes a difference, and you have to decide what kind of difference you want to make.

-Jane Goodall

Thank You



Horseback riders are enjoying horse friendly trails throughout Michigan.

Horses are our natural health, mobility, recreational, and therapy partners. Horses have been declared as Equine Assisted Services (EAS). As of September 25, 2020, with the U.S House of Representatives S.785 passed unanimously which supports equine assistance for veterans.

<https://barr.house.gov/2020/7/congressman-barr-s-amendment-increasing-funding-for-equine-assisted-therapy-passes-house>

EQUINE-ASSISTED SERVICES Equine-assisted services (EAS) is a term used to refer to various services in which professionals incorporate horses and other equines to benefit people. It is consistent with terminology used for animal-assisted services or interventions. Three areas of EAS have been identified: THERAPY, LEARNING, and HORSEMANSHIP.

EQUINE THERAPY • Physical therapy including hippotherapy/equine movement • Occupational therapy in the equine environment • Counseling or psychotherapy with equine interactions • Speech-language pathologist who incorporates horses in treatment • Recreational therapy incorporating equines

EQUINE-ASSISTED LEARNING - • Education • Organizations • Personal Development

HORSEMANSHIP - Adaptive Equestrian Sport, Adaptive Riding or Therapeutic Riding, Driving, Interactive Vaulting

<https://pathintl.org/wp-content/uploads/2023/07/PATH-Intl-Definitions-Guide-for-Researchers.pdf>

Horses are declared Equine Assisted Services (EAS). This allows people with physical, cognitive, behavioral, or emotional challenges to find strength, healing and independence through the power and connection with the horse. There are many horse therapy organizations across Michigan that provide useful horse therapy services for people. Kalamazoo is home of the Veterinary Medicine Research and Development (VMRD) division of the world's leading animal health company, Zoetis Animal Health. Many Zoetis employees own horses and support equine health and the equine industry. Zoetis became the Official Equine Health & Wellness Partner of PATH Intl. in 2022, which allows them to support this important organization at the national level. This sponsorship in turn allows PATH Intl. to continue guiding and supporting over 800 horse farms offering EAS as PATH Intl Member Centers, thanks to 7,000 equines! This incredible work impacts 53,000 men, women, and children (including 6,000 veterans) in areas of physical well-being, learning and developmental disabilities, as well as mental health challenges, trauma recovery, and at-risk youth. Kalamazoo has a proud history in the development and use of therapeutic riding. Kalamazoo County's Cheff Therapeutic Riding Center, <https://www.cheffcenter.org>, is a world-renowned model, celebrating over 50 years of smiles, laughter, horses, healing, and fun by serving riders of all ages who have physical, emotional, or cognitive disabilities. Mental health, in general, is a significant concern in all of society – promotion of equestrian activities is a great way to add positive support to our community options. Medical research has found substantial health benefits for people when they are near horses including, but not limited to; coherent heartbeat, right and left brain unison functions, creating strong neuropathways, awakening the brain, providing avenues for learning, allowing better and easier focus and recall, building balance, confidence, coordination, decision making, empathy, emotion regulation, flexibility, goal setting, kindness, muscle strengthening, patience, problem solving skills, self-awareness, self-discipline, verbal and non-verbal communication skills and stamina.

While decreasing anger, anxiety, blood pressure, depression, hostility, tension, and cortisol levels indicating stress hormones. **Horses are healthy for people.**

Access to public lands is extremely important for people with horses. We need large parcels to exercise our horses for the health of both people and equines. We need to be welcomed and safe for enjoyable experiences.

Equines are natural prey animals. They **coexist with other creatures and are not harmful to the environment.** <https://www.americantrails.org/resources/environmental-aspects-of-horses-on-trails>

Equines have better hearing, vision, and sense of smell than their riders. So, equines may notice other trails users, objects, and animals before their riders. When equines are surprised or approached in a swift manner, equines may move quickly out of the way with self-preservation techniques causing **risks of injuries for people with equines.**

Speaking helps horses to understand other trail users are people and not potential predators. Speaking helps people to breathe, which helps people to have a lower heart rate. This also helps horses to be calm because horses can hear/feel our heart rates. **Let's "get the WORD out".** <https://supportwild.com/can-a-horse-hear-your-heartbeat/>

[Horse Connection Magazine Heart to Heart - A quantitative approach to measuring the emotional bond between horses and humans - August 2007 - Horse Connection Magazine](#)

Dreams came true for so many people with horses during the month of November at our second official Shoreline Horseback Riding Season at Silver Lake State Park, Mears, Michigan. There were over 2400 Shoreline Horseback Riding reservations of 125 horses per day. Most of the first two weeks and weekend days were sold out. There were riders from all over America, and even some riders from France and Germany. Some riders trailered their horses for TWO DAYS from Arizona to enjoy these unique shoreline horseback riding opportunities. People with horses are so thankful for these opportunities.



We're very happy **several DNR managers and team members were able to experience shoreline horseback riding** at Silver Lake State Park during our Shoreline Horseback Riding Season.

Memories made in Michigan!



Thank you everyone for helping Michigan to be a great place to live, work, play, and travel. Ride on!

ORVAW Report

- On the topic of purchasing equipment with trail improvement funds, it was deemed possible and legal orvaw now looks to form a sub committee to look at the availability of funds within the parameters of the program.
- Lake county orv training/skill park I will have Bob Meyers speak on this at this time as he has been very involved in it.
- ORV sunset bill 4515 (orv stickers) has passed.
- Possible ALPHA trail marking system expansion in the lower, this has received unanimous support from orvaw on putting this in action in the lower, more to come.
- MMRC (Michigan motorized recreational council) was reintroduced, comprised of representatives of major orv groups and organizations in Michigan. They look to offer assistance to other clubs and organizations and the DNR, also plan to help protect orv rights in Michigan.

12/10/23

Michael Maves