

The National Parks Michigan Mobility Challenge (NPMMC)

Area of Innovation: Micromobility

The Michigan Office of Future Mobility and Electrification (OFME) and the National Park Service (NPS) are seeking information from the micromobility industry regarding the various services and technologies that are suitable for the recreational environment in and around NPS park units in Michigan.

OFME and NPS invite responses for shared micromobility concepts, including but not limited to electric bikes, e-scooters, and other forms of micromobility.

What is Micromobility?

Micromobility is an emerging transportation trend that is changing how people get around, particularly for short trips. Micromobility includes a wide range of transportation options, such as bikeshare systems as well as electric-powered devices such as e-bikes and e-scooters, that provide cost-effective and environmentally friendly alternatives or that compliment personal motor vehicle transportation as well as first/last-mile connectivity to public transit. Currently, micromobility options including docked and dockless bikeshares and dockless e-scooters are available in many US cities. They are seen as a solution to the “last mile problem,” carrying riders from public transit stops to their final destinations.

NPS units in Michigan anticipate more visitors to access park destinations and engage in recreational activities using emerging transportation options, such as bikes, scooters, and other micromobility devices. Park units and surrounding areas are also investing in improved multi-use paths and other infrastructure to support safe micromobility use in and around parks. However, to access and take advantage of these investments, visitors typically need to bring their own vehicle (*e.g.*, bicycle, scooter) or rent one from a limited number of retailers nearby. Many visitors do not bring their own equipment, may not own their own, or may find traditional daily rental service too limited, expensive, or inflexible to meet their needs.

Wanted: Innovators up to the Challenge

OFME and NPS are exploring options for expanding access to shared micromobility services that could provide visitors with a greater variety of options to navigate in and around NPS sites, while replacing motor vehicle trips and reducing the environmental impact of their travel. Michigan - a hub for transportation innovation and manufacturing - is in an optimal position to embrace these trends and offer its residents and visitors more accessible and sustainable transportation.

Where do we want to Innovate?

The responses should identify specific technologies that could be used and how they could provide safe, reliable, and sustainable micromobility services for users in and around the NPS park units described below:

- Alger County, [Pictured Rocks National Lakeshore](#) (PIRO): Town of Munising connecting to the Munising Falls Visitor Center parking lot only (and not into other areas of the park at this time) (*see Figure 1*).
- Houghton County, [Keweenaw National Historical Park](#) (KEWE): Connecting heritage sites within and nearby the National Historical Park including, but not limited to, the cities of Houghton, Hancock, Calumet, Swedetown, Laurium, and Tamarack (*see Figure 2*).

- Monroe County, [River Raisin National Battlefield Park](#) (RIRA): Along the River Raisin Heritage Trail between Downtown Monroe and Sterling State Park, via River Raisin National Battlefield Park (see Figure 3).

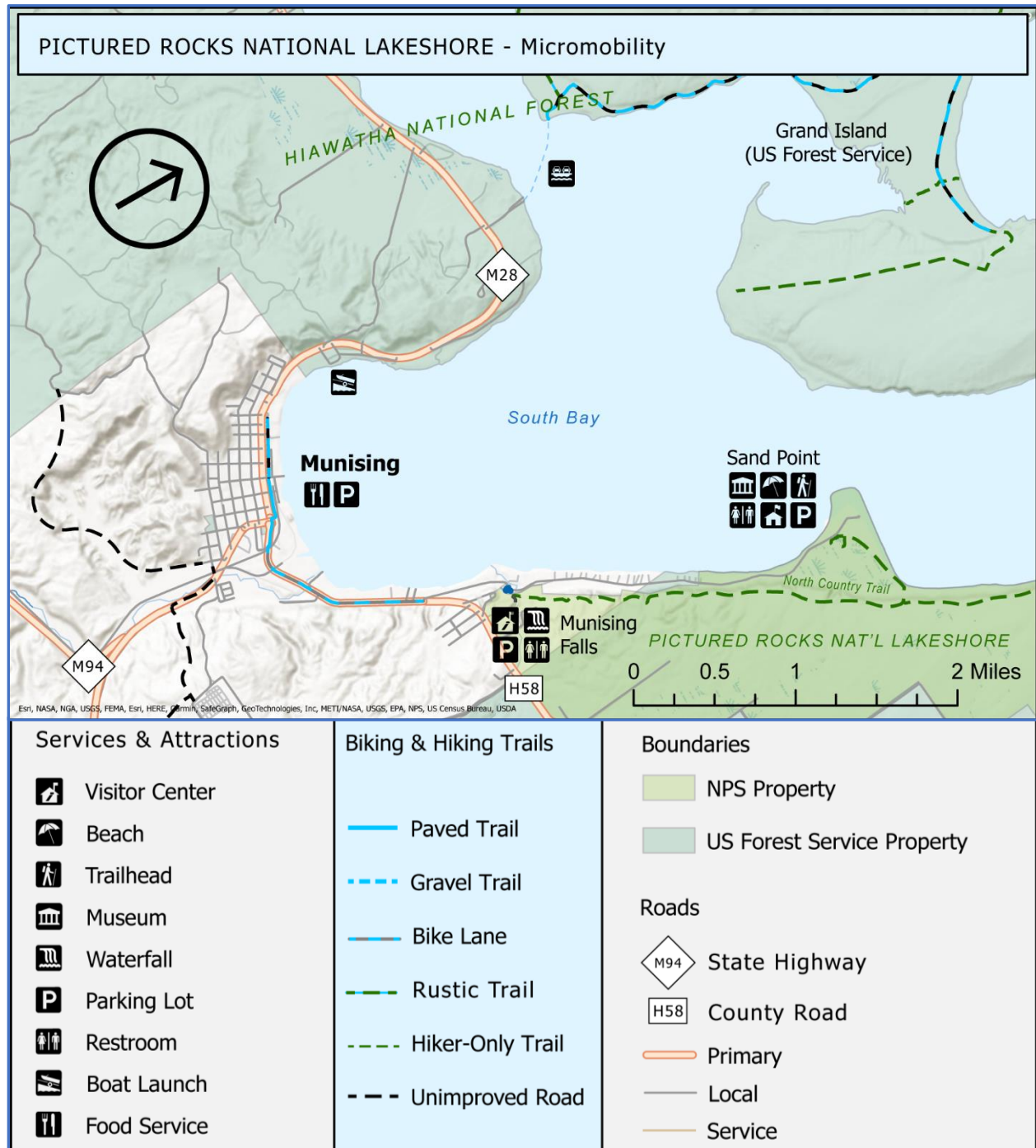


Figure 1: Town of Munising, MI proximate to PIRO at the Munising Falls Visitor Center Parking Lot.
Created by the Western Transportation Institute for the National Park Service, April 2023.

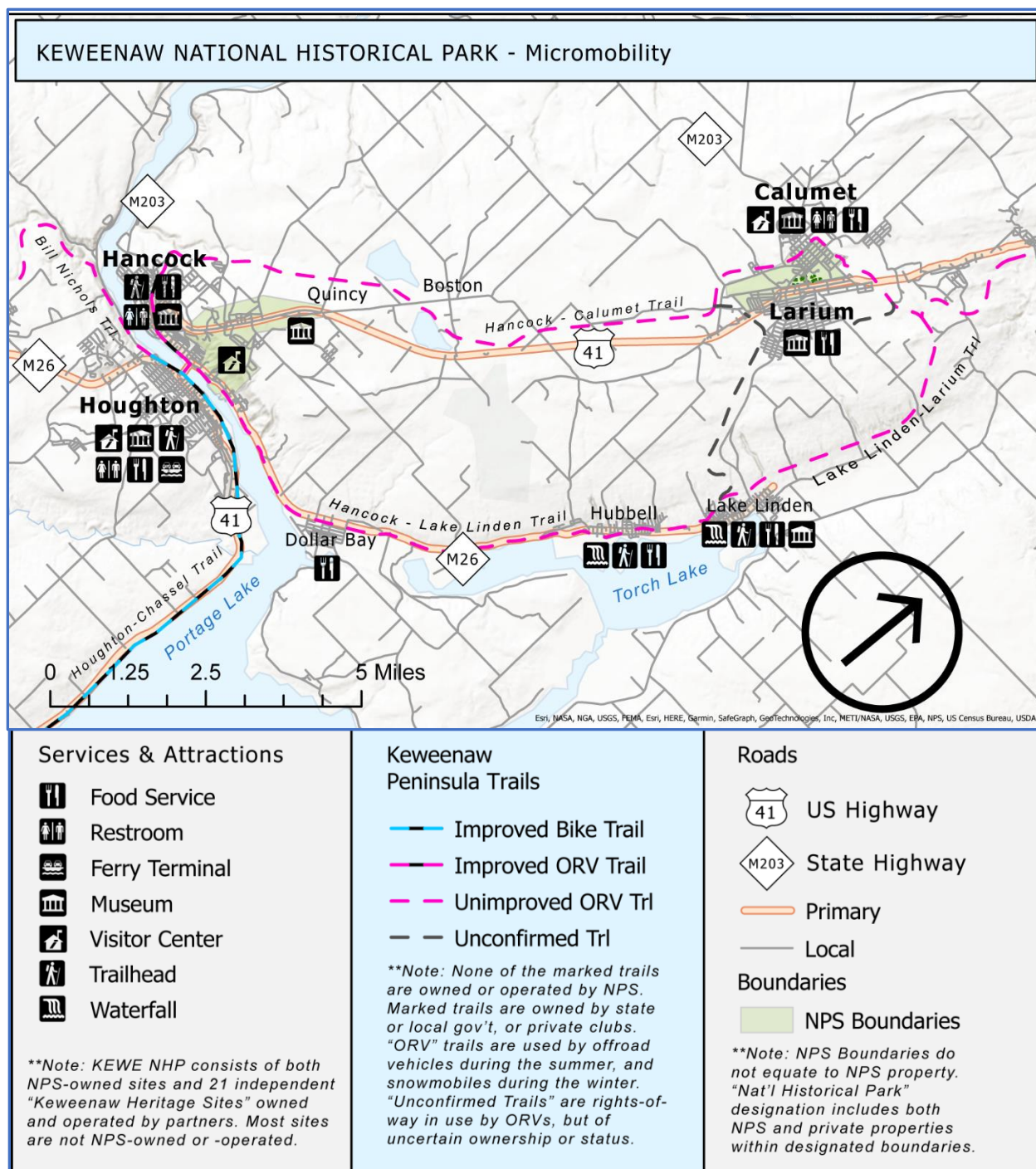


Figure 2: KEWE Quincy Unit proximate to Hancock, MI and Calumet, MI.
Created by the Western Transportation Institute for the National Park Service, April 2023.

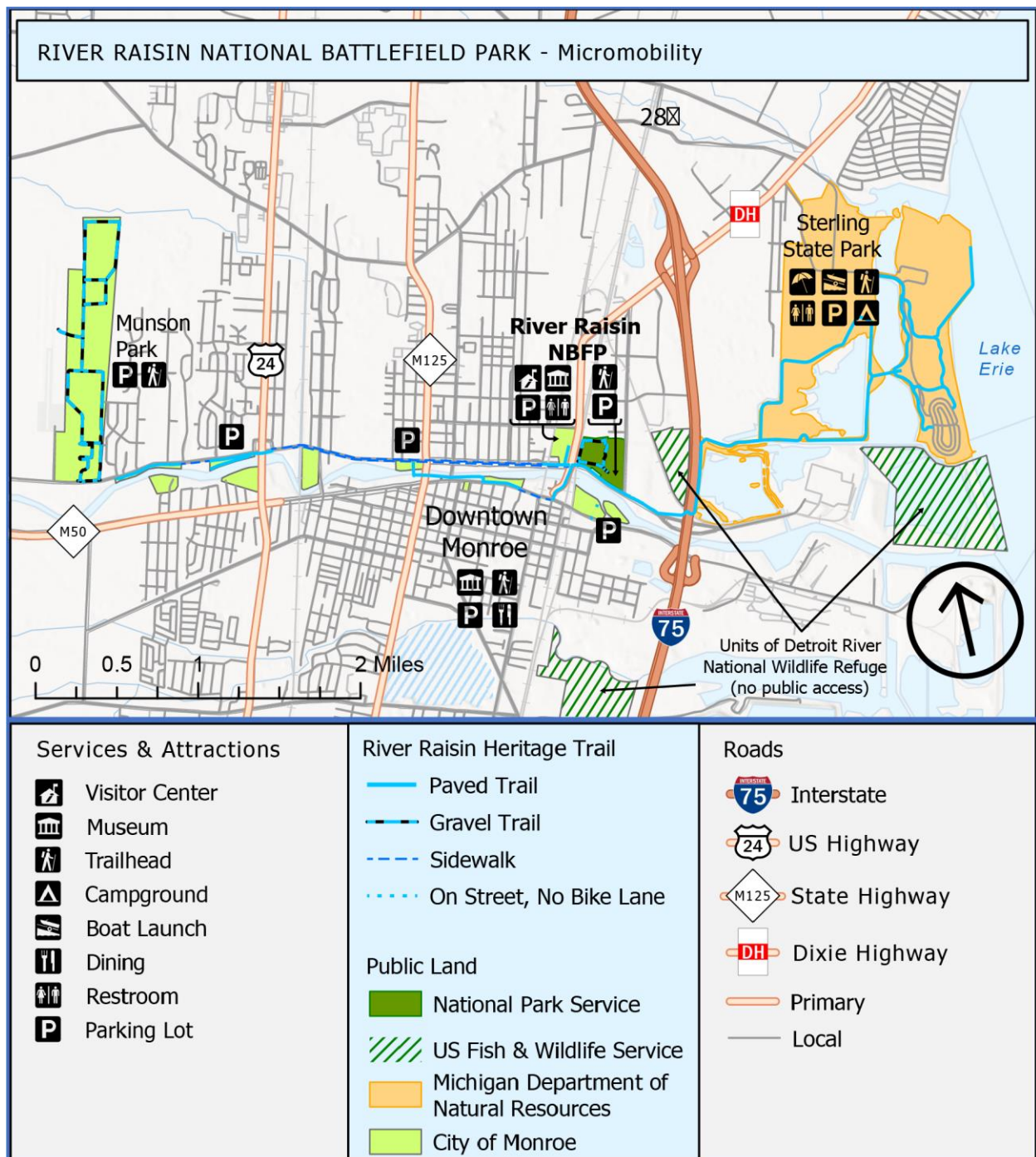


Figure 3: River Raisin Heritage Trail proximate to Monroe, MI, RIRA, and Sterling State Park.
Created by the Western Transportation Institute for the National Park Service, May 2023.

Come Innovate with Us!

Michigan is ready to take on the challenge and welcome visitors to NPS sites across the State with emerging mobility innovations! OFME and NPS are initiating a call for submissions which may help inform how micromobility can improve the visitor experience at Michigan NPS sites.

OFME and NPS request that any responses to this call for submissions be no longer than five (5) pages and submitted electronically to the Application Portal. The following criteria, while not required for submissions, serves as an overview of the type of information being solicited by the reviewing committee.

Shared Micromobility System Infrastructure: The proposed shared micromobility system should include information on the types of shared micromobility systems that are available and feasible to operate in and around the locations listed. This includes detailing the electrical and cellular data requirements for their operation, physical infrastructure requirements such as docking, storage, and operations, recommended operating environment such as paved or unpaved and on-street or off-street, and accessibility for persons with disabilities.

Ownership, Operation, and Maintenance: Submissions must describe ownership and provide options for the operation and maintenance of the equipment, collection of payments, and enforcement of system rules (such as operating in designated areas only, return of equipment to designated areas, etc.), hours of operation, and terms and conditions for use. Please attach letters of intent from all parties with an ownership or operations role. Submissions must also detail the data that is collected and stored about system usage, and which of this data can be shared with OFME and NPS, and the public.

Partnerships: For each location, the submissions must detail what kinds of relationships or partnerships would be necessary for the service to be successful. It is important to consider how a shared micromobility system could integrate with existing transportation infrastructure and services in the area.

Location: The proposed locations for shared micromobility systems should be in established developed areas where the use of a variety of mobility devices is expected and safe. Locations should be on publicly or privately owned properties, lands, or rights-of-way, and be compliant with all applicable Federal, State, and local laws, policies, and regulations. The locations must be accessible to the general public at all times (24 hours per day / 7 days per week).

Costs: The submissions must provide information on the range of costs that are anticipated for operating the system, how much could be anticipated to be recouped in user fees, and how much subsidy (if any) would be necessary to make up for anticipated shortfall in user fees. Submissions must also consider providing discounted rates for local residents or individuals with low incomes.

Scalability: Indicate the potential for the proposed technology to be expanded to serve other areas within the city or region, and any economies of scale that could be realized and passed on to users if it were expanded.