Second Edition

MICHIGAN WATER TRAILS MANUAL

Your guide to creating a water trail

MICHIGAN WATER TRAILS

ACKNOWLEDGMENTS

Special thanks to the following individuals and organizations for their expertise, technical advisement, review and feedback, without which this manual would not have been possible:

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Funding for this manual was provided by the Michigan Coastal Zone Management Program, Department of Environmental Quality Office of the Great Lakes; and the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

This manual was prepared by the Land Information Access Association (LIAA).

Second Edition

October 2021

Paddlers enjoying the Detroit Heritage River Water Trail.

Cover photo by Northern Swag.

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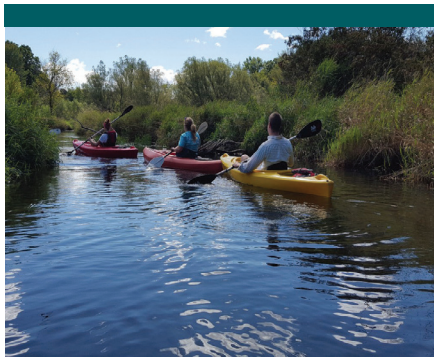

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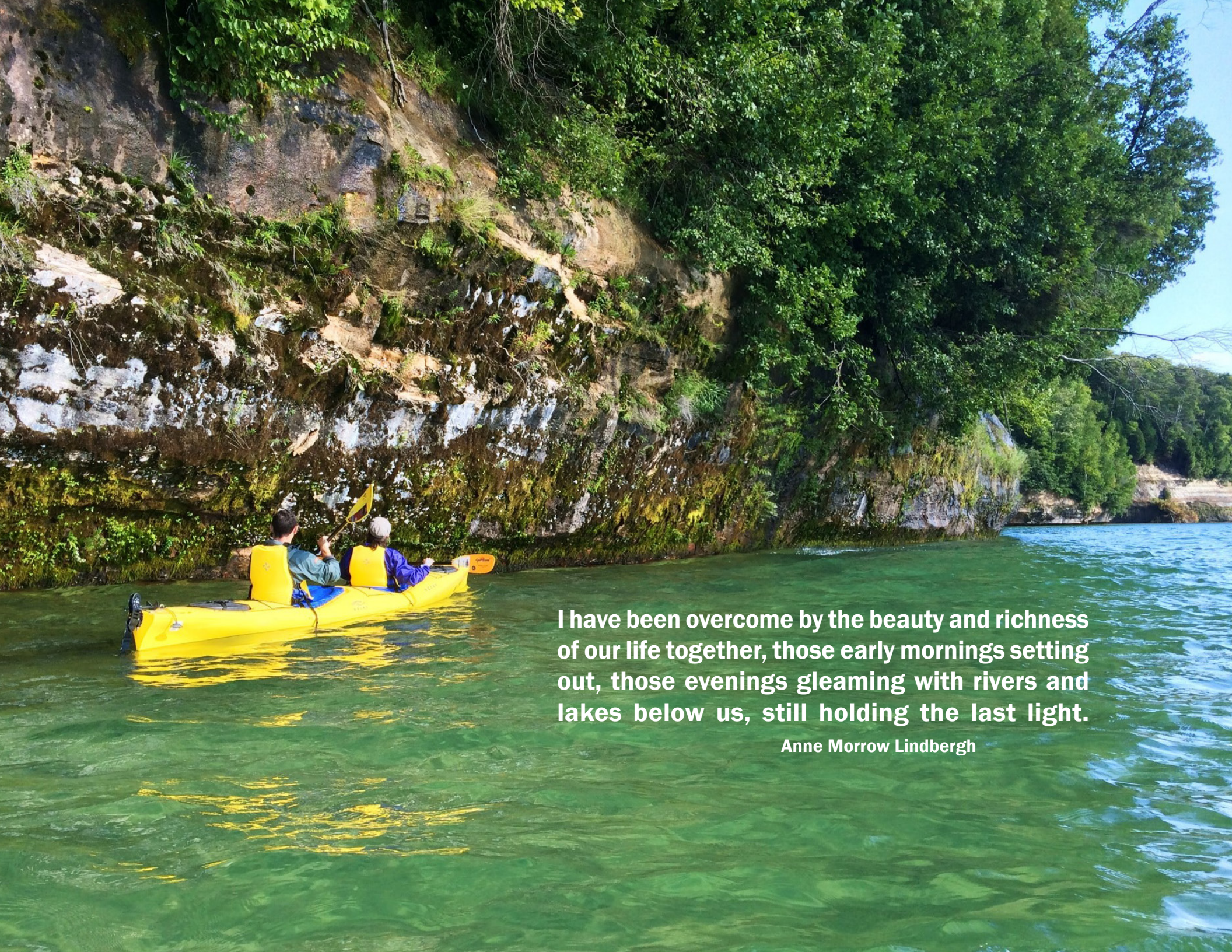


I have been overcome by the beauty and richness of our life together, those early mornings setting out, those evenings gleaming with rivers and lakes below us, still holding the last light.

Anne Morrow Lindbergh

CHAPTER 1
INTRODUCTION

This Water Trail Manual is intended to provide local officials, water advocacy organizations, paddlers and visionary citizens with the resources and tools to develop a water trail in their community. Given the rich diversity of paddling experiences in Michigan, each water trail planning effort will be unique. This manual will help you develop a water trail that is tailored to your community's capacity, resources and needs.

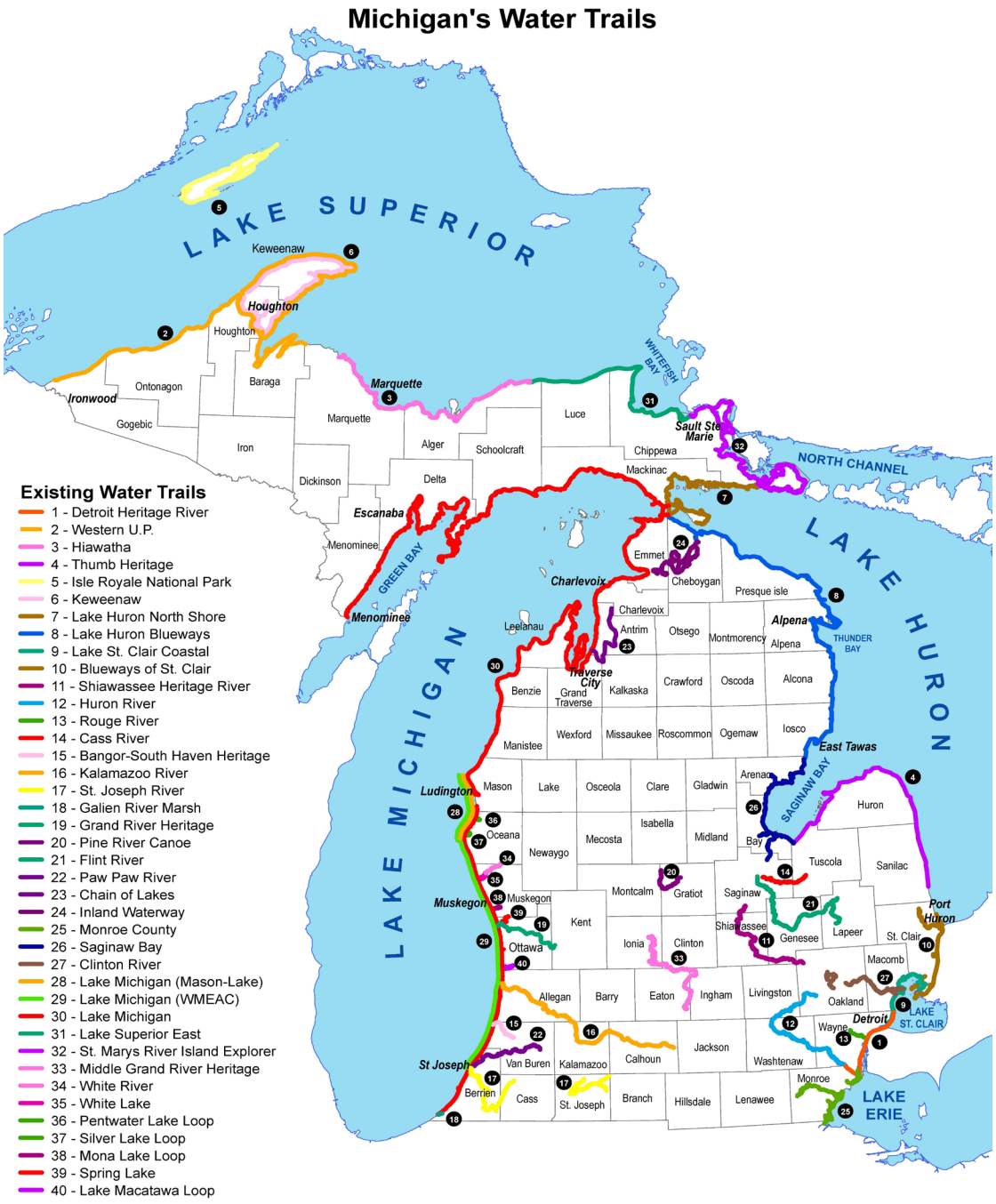
WHAT IS A WATER TRAIL?

A water trail is a recreational paddling route along a lake, river, canal or bay specifically dedicated for people using small boats like kayaks, canoes and stand-up paddleboards (SUPs). In urban areas, water trails may feature well-developed access and launch sites; are typically located near significant historical, environmental or culture points of interest; and are often close to amenities such as restaurants, shops and hotels. In wilderness areas, water trails may feature very few amenities outside of an occasional primitive campground.

So what is the difference between a water trail and the well-established paddling routes people have used throughout Michigan for hundreds of years? The primary difference between a water trail and a paddling route is that a water trail is organized, supported and managed by a dedicated entity and/or community partnership that declares its intention to be responsible for the long-term funding, development and management of the water trail.

HISTORY OF WATERWAYS IN MICHIGAN

People have used Michigan's waterways for thousands of years. Native Americans used the waterways for sustenance and trade; early European settlers used the waterways to transport goods and timber; and water resources were the foundation of Michigan's earliest manufacturing and shipping industries. Today, Michigan's waterways are the heart of a thriving recreational and tourism industry.



WATER TRAILS IN MICHIGAN

At the time of this writing, Michigan boasts an estimated 2,850 miles of coastal water trails — covering nearly every mile of coastline on both the Upper and Lower Peninsulas — as well as an estimated 1,280 miles of inland water trails. Water trails are located in some of Michigan's most remote and natural environments as well as in some of the state's most industrial and urban environments, weaving together Michigan's beautiful water resources and its communities.

In addition to water trail development efforts here in Michigan, water trail initiatives are also underway in many other areas throughout the Great Lakes Basin. Natural resources departments, local communities and regional tourism agencies from Indiana, Illinois and Wisconsin are working with stakeholders in Michigan to develop a

The Detroit Heritage River Water Trail. Credit: Riverside Kayak Connection, Canoe & Kayak Magazine.

connected water trail around all of Lake Michigan. The Provincial Government of Ontario, Canada, is working to develop a water trail along the north shore of Lake Superior.

The rise of interest in water trails can be attributed to many factors, including the relatively low cost of paddling equipment, the popularity of paddling for people of all ages and abilities, and the ability to easily access Michigan's vast water resources. In addition, water trails provide a great opportunity for communities to establish and strengthen their identity, attract tourists, promote healthy lifestyles, and grow their local and regional economy.

THE WATER TRAIL STATE

Water trails in Michigan are being planned for and promoted at the state level. Plans from the Michigan Department of Natural Resources — including the Statewide Comprehensive Outdoor Recreation Plan (SCORP), DNR-Managed Land Strategy, Comprehensive Trail Plan, and Parks and Recreation Division Strategic Plan — and agencies such as the Michigan Department of Environmental Quality's Office of the Great Lakes all call for the establishment of a statewide system of designated water trails.

The River Raisin in Monroe.

WATER TRAIL DESIGNATIONS

Over the years, the Michigan legislature and the Michigan Department of Natural Resources (DNR) have worked to create a framework of designation programs for water trails. While some programs like the Heritage Water Trail Program and the Pure Michigan Water Trail legislation are no longer active or have yet to be funded, they do provide some elements and context for water-trail development in Michigan. The following pages provide a brief description of the different water trail designations in Michigan.

HERITAGE WATER TRAILS

In 2002, the Michigan legislature created the Michigan Heritage Water Trail Program. The program was established to help local advocates create water trails that help celebrate their local history, culture and environment. However, no funding has ever been appropriated to implement the program. Over the life of the program, nine heritage water trails have still been established in communities and regions throughout Michigan. Responsibility for the program was transferred from the Department of History, Arts and Libraries to the Department of Natural Resources by executive order in 2009.

"Turnip Rock" sits along the Tip of the Thumb Heritage Water Trail near Port Austin, Michigan.

PURE MICHIGAN WATER TRAILS

In 2014, the Michigan Legislature passed Public Act 210, which allows any city, village or township to apply for a Pure Michigan Water Trail designation. To receive the Pure Michigan designation, local jurisdictions must demonstrate the following criteria have been met:

- The jurisdiction is easily accessible to the water trail;
- The jurisdiction has adopted a formal resolution in support of the designation; and
- The jurisdiction has adopted a plan for providing support services (e.g., parking, docks, restrooms, etc.) for trail users.

In addition, the jurisdiction must demonstrate it has met at least three of the following four criteria:

- The jurisdiction has established a formal water trail advisory committee;
- The jurisdiction has hosted an annual trail-related event or project;
- The school board within the jurisdiction has endorsed a trail-based learning component within the school district; and/or
- The jurisdiction's land use plans, ordinances and other planning documents recognize the relationship between the trail and the community assets, or there is demonstrated support to add these provisions.

As of this writing, funding for this legislation has not yet been allocated.

Photo: Kim Schneid

STATE WATER TRAIL DESIGNATION

In 2016, the DNR drafted a framework for a new State Water Trail Designation program. The intent of the program is to help establish a sustainable system of water trails that are geographically dispersed, locally supported, and offer a diversity of experiences.

Under the framework, state officials developed criteria for a state water trail designation. To receive a state water trail designation, the water trail must: (1) provide a quality trail experience; (2) provide clear information for users; (3) demonstrate broad community support; and (4) demonstrate a sustainable business, maintenance and marketing plan.

Under the proposed program, applicants could apply for three different water trail designations:

- Non-Motorized Inland Water Trail
- Great Lakes Water Trail
- Motorized Water Trail

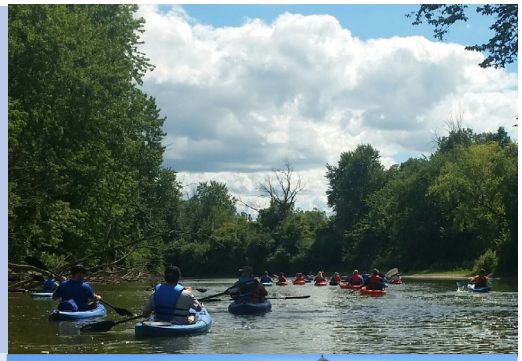
The state designation would provide an opportunity for the water trail to be promoted in traditional DNR marketing materials.

As of this writing, the DNR has not formally approved the designation program. A draft of the designation framework, including descriptions of the three water trail designations and the process to apply for designation, can be found in the Appendix.

DRAFT STATE TRAIL DESIGNATIONS

1 NON-MOTORIZED INLAND WATER TRAIL

A Non-motorized Inland Water Trail can be located along any water system (e.g., lake, river, and connected lakes and river systems) that is not on the Great Lakes.



2 GREAT LAKES WATER TRAIL

A Great Lakes Water Trail can be located along the shore of any of Michigan's Great Lakes, including all connecting water bodies.

3 MOTORIZED WATER TRAIL

A Motorized Water Trail can be on either inland water or on the Great Lakes and does not have to be exclusively used by motorized boats.

The Island Loop National Water Trail in Port Huron.

NATIONAL WATER TRAIL DESIGNATION

In addition to Michigan's designation programs, the Rivers, Trails and Conservation Assistance Program (RTCA) of the U.S. National Park Service (NPS) has established a National Water Trail System. As of this writing, there are 21 National Water Trails throughout the United States, including two in Michigan: the Huron River Water Trail, and the Island Loop Trail of the Blueways of St. Clair (pictured).

To receive a National Water Trail Designation, an applicant must demonstrate that:

- The water trail is open to public use and designed, constructed and maintained according to best-management practices;
- The water trail is compliant with local land-use plans and environmental laws;
- The trail will be open for public use for a least 10 consecutive years after designation; and
- The trail designation is supported by landowners on which access points are located.

In addition, the applicant must fulfill the seven best-management practices described on the next page.

PLANNING IMPLICATIONS OF DESIGNATION PROGRAMS

The proposed Michigan Water Trail designation criteria and the RTCA National Water Trail designation criteria can both be used as a framework for your water trail planning and development efforts. More information about how to develop a water trail and a water trail master plan can be found in Chapter 2.

NATIONAL WATER TRAIL DESIGNATION REQUIREMENTS

More information about the National Water Trail designation can be found at www.nps.gov/WaterTrails.

7

BEST MANAGEMENT PRACTICES

An applicant must demonstrate these seven best-management practices to achieve National Water Trail Designation.

1

RECREATION OPPORTUNITIES

The water trail route has established public access points that accommodate a diversity of trip lengths and provide access to a variety of opportunities for recreation and education.

2

EDUCATION

The water trail provides opportunities to learn about the value of water resources, cultural heritage, boating skills and outdoor ethics.

3

CONSERVATION

The water trail provides opportunities for communities to develop and implement strategies that enhance and restore the health of local waterways and surrounding lands.

4

COMMUNITY SUPPORT

Local communities provide support and advocacy for maintenance and stewardship of the water trail.

5

PUBLIC INFORMATION

The public is provided with accessible and understandable water trail information, including details for identifying access and trail routes; cultural, historic and natural features; hazards; and water quality. The water trail is promoted to the community and a broad national audience.

6

TRAIL MAINTENANCE

There is a demonstrated ability to support routine and long-term maintenance investments on the water trail. Facilities are designed, constructed and maintained by incorporating sustainability principles.

7

PLANNING

An applicant must also incorporate and maintain a water trail plan that describes a vision, desired future conditions, and strategies to strengthen best-management practices.

REGULATORY FRAMEWORK

The State of Michigan has established a number of regulatory authorities for waterways. It is important to understand how the development of a water trail fits within these legal authorities.

THE PUBLIC TRUST

Navigable waterways within the State of Michigan are managed for public benefit under the Public Trust Doctrine. The idea of a Public Trust Doctrine dates back over 2,000 years to the Roman Empire and states that the public has a right to use common resources, such as open water and its surrounding shoreline. The underlying goal of the doctrine is to ensure that commonly-held public resources are protected for public use.

When applied to a water trail, the public has a right to use the waters of the Great Lakes (and Lake St. Clair) for recreation, and can access and walk on the exposed lakebed below the ordinary high water mark. In this instance, the definition of the "ordinary high water mark" comes from the 2005 Michigan Supreme Court decision in *Glass v. Goeckel,* which states that the ordinary high water mark is the point where "the presence and action of the water is so continuous as to leave a defined mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristics." Under this definition, in general the ordinary high water mark will be relatively constant over time and should not change appreciatively even as lake levels change.

The public also has the right to use the waters of inland lakes, rivers, and streams for recreation, including the St. Marys River, the St. Clair River, and the Detroit River. However, the beds of these lakes and rivers belong to the adjacent landowners, and paddlers must take care not to trespass on shorelands. Since the beds of inland lakes, rivers, and streams are often privately owned, communities planning a water trail will want to ensure there are an adequate number of legal public access points on these waterways.

The State of Michigan has jurisdiction over and is responsible for managing the river surface on all navigable rivers in Michigan. In addition, state authorities are responsible for the enforcement of other state laws and regulations pertaining to waterways (e.g., marine safety, fishing, water protection, etc.).

Flint River Water Trail

ENVIRONMENTAL PERMITTING

Under Michigan law, the Department of Environmental Quality (DEQ) regulates many activities involved in water trail development and maintenance on all Michigan waters. Along the coast of Michigan's Great Lakes, Lake St. Clair and certain large, navigable waterways, federal agencies also have the authority to regulate some of these activities.

For a Great Lake, inland lake, river, wetland, or 100-year floodplain, some water-trail development activities typically require a state permit. Examples of these activities include dredging or placing fill material, removing logjams, and installing docks, boat launches, culverts, and other structures. Grading, excavation, and other earth-moving activities within 500 feet of a waterbody or wetland also require a soil erosion control permit. In certain areas of the coast that have been designated under Michigan law as High Risk Erosion Areas, Environmental Areas or Critical Dune Areas, water-trail construction or maintenance activities outside the waterbody — that is, on "dry land" — may require a state permit as well.

To avoid duplication of state and federal permitting processes, the DEQ has worked with the U.S. Army Corps of Engineers to develop a joint permit application for projects proposed in Michigan's waters and wetlands. As a result, completing the joint application form and submitting it to the DEQ also begins the application process for a federal permit (if one is required for the proposed project). The application is available at www.michigan.gov/jointpermit.

PERMIT REQUIRED ACTIVITIES

- Dredging and placing fill
- Installing riprap
- Shoreline protection projects
- Installing docks, piers and mooring pillars
- Installing boat wells and boat hoists
- Installing boardwalks and decks
- Installing pipes
- Installing moorings and navigational buoys
- Installing fences
- Removing structures
- Habitat restoration
- Installing bridges and culverts
- Marina construction, expansion and reconfiguration

LIABILITY

Two questions that local officials often ask in the preliminary stages of planning a water trail typically pertain to liability:

1. Does allowing water trail users on public or private property expose local governments or private landowners to liability?
2. If local governments or landowners improve a natural sandy beach launch site with a floating dock, signage, lockers or other amenities, what effect will that have on liability?

Advisory research prepared for Michigan Sea Grant by the National Sea Grant Law Center in 2014 and 2016 suggests that local governments and private landowners participating in water trails with "reasonable care" are generally protected from liability in most instances. However, there may be some exceptions. A local jurisdiction or landowner may be found liable if their conduct is "willful or malicious," or if "valuable consideration" (i.e., a specific fee) is paid in return for use of an access site (such as a launch fee). These research documents are included in the Appendix for reference.

This advisory research, of course, should not be construed as legal advice. Liability questions for your water trail are best addressed with an attorney.

UNIQUE RIVER DESIGNATIONS

Michigan has two unique river designations that can impact how public access sites and other amenities are provided and managed.

NATURAL RIVERS PROGRAM

The Natural Rivers Program (NRP) is administered by the Habitat Management Unit within the Fisheries Division of the Michigan Department of Natural Resources (DNR). The NRP was developed to preserve, protect and enhance high-quality river systems for the use and enjoyment of current and future generations. The program seeks to allow property owners adjacent to the river the right to reasonable development, while at the same time protecting Michigan's unique river resources. Since the NRP's inception in 1970, some 2,091 miles on 16 rivers or river segments have received the Natural River designation

A key element of the NRP is a set of zoning standards that apply to all public and private land up to 400 feet of either side of a designated river (with the exception of land inside a city or village, where the NR designation does not apply). This strip is often referred to as the "Natural River District." One unique aspect of the program is that the NR zoning may be administered by local jurisdictions, but if a local government has not adopted its own NR ordinance, the State's rules apply instead.

More information about the Natural Rivers Program can be found at www.michigan.gov/dnr.

The Boardman River in Grand Traverse County.

DESIGNATED NATURAL RIVERS AND SEGMENTS IN MICHIGAN

- Jordan
- Betsie
- Rogue
- Two Hearted
- White
- Boardman
- Huron
- Pere Marquette
- Flat
- Rifle
- Lower Kalamazoo
- Pigeon
- AuSable
- Fox
- Pine
- Upper Manistee

WILD AND SCENIC RIVER DESIGNATIONS IN MICHIGAN

- AuSable River
- Bear Creek
- Carp River
- Indian River
- Manistee River
- Ontonogan River
- Paint River
- Pere Marquette River
- Pine River
- Presque Isle River
- Sturgeon River
- Tahquamenon River
- Whitefish River
- Yellow Dog River

The AuSable River in Grayling.

NATIONAL WILD AND SCENIC RIVERS

The National Wild and Scenic Rivers System was created by an act of Congress in 1968 to preserve certain rivers with outstanding natural, cultural and recreational values in a free-flowing condition for the enjoyment of present and future generations. The act was intended to promote the unique character of these rivers while also allowing for their use and enjoyment. The act encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

Management plans for these rivers are developed by local agency representatives and address protection, development of lands and facilities, user capacities, and other management practices necessary to achieve the purposes of the act. Approximately 656 miles of rivers in Michigan have been designated as Wild and Scenic. The designation is managed by the Interagency Wild and Scenic Rivers Coordinating Council, which includes representatives from the U.S. Bureau of Land Management, the National Park Service and the U.S. Forest Service. More information about the Wild and Scenic Rivers designation can be found at www.rivers.gov.

LEVERAGING WATER TRAILS FOR ECONOMIC DEVELOPMENT

Water trails can have a significant impact on the local and regional economy. Water trails help support healthy communities and contribute to a high quality of life. Water trails also help attract and support tourism and new business opportunities as well as help sustain existing businesses and their employees.

Clinch Park in Traverse City.

According to the Outdoor Industry Association (OIA), paddlesports — largely fueled by stand-up paddleboarding and kayaking — are one of the fastest-growing outdoor activities in the United States. A 2015 Special Report on Paddlesports prepared by the OIA notes that more than 21.7 million people — or 7.4 percent of Americans — participated in paddling activities in 2014. This marks an increase of more than 3 million participants since the OIA began collecting data in 2010.

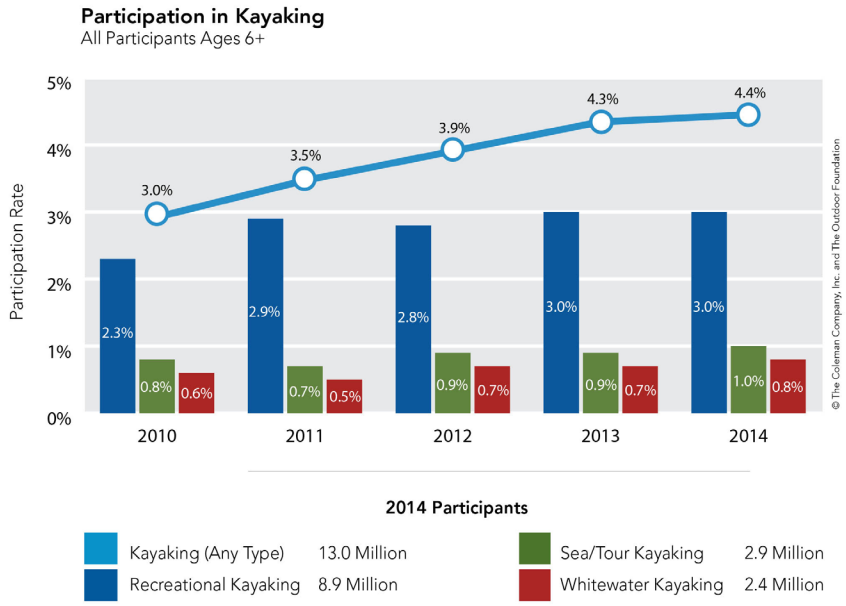
Kayaking, which is the most popular form of paddling, had approximately 13 million participants in 2014. The OIA also notes that kayakers across the United States took an average of eight trips during the year, contributing to 105 million trips overall.

Nationally, paddlers are evenly represented across age groups but tend to be more highly educated, with 49 percent of kayakers and 43 percent of canoeists achieving a college degree or higher. Furthermore, 55 percent of kayakers and 48 percent of canoeists have incomes greater than $75,000.

A comprehensive understanding of consumer spending on paddling in Michigan is still largely incomplete. However, *Michigan Blue Economy*, a 2015 report from the Michigan Economic Center and the Grand Valley State University Annis Water Resources Institute, noted that the small-but-growing canoe and kayak industry annually contributes roughly $140 million to Michigan's economy.

In 2006, Michigan Sea Grant noted that in the Midwest (Michigan, Indiana, Wisconsin and Ohio), it is estimated that annually 4.6 million paddlers spend approximately $1.78 billion on trips, which supports close to 35,000 jobs.

In 2013, the Huron River Watershed Council commissioned an economic impact study for the Huron River Water Trail from the Washtenaw County Office of Community and Economic Development. The analysis found that the Huron River Water Trail generates more than $49.5 million annually



Source: Outdoor Industry Association

from current users, including $33 million in Washtenaw County alone. The report also went on to note that the average paddler will travel roughly 79 miles a day for a day trip and 117 miles for an overnight trip.

A 2015 report from the River Management Society summarizes notable findings on the economic impact of water trails in three different communities in the United States. According to the report, "Towns that already have dining, lodging and rental services are more likely to see an increase in paddlesports tourism when they advertise and promote their water trail, as contrasted with communities that market their water trail, but do not provide standard amenities for paddlers." The report also identifies the key trail tourist amenities that tend to successfully attract new audiences and generate economic activity:

- Access to the water
- Outfitters: rental and shuttling services
- Lodging: camping, bed and breakfasts
- Dining: restaurants, breweries, grocery stores
- Integrated recreation: hiking and biking paths
- Activities: museums, interpretive centers and other activities
- Proximity: neighboring towns with similar amenities

The report also notes that guides and outfitters, lodging and food are typically the top visitor expenditures for trail tourists. Therefore, communities with lodging, dining and outfitter/rental services already in place can expect to experience a more substantial economic benefit.

Economic benefits from a water trail develop over time. At first, you may only notice a small economic impact over a few busy summer weekends. However, as the water trail becomes more established and well known, you may see a bigger economic impact throughout the summer and maybe into the shoulder seasons. It is important to talk with and establish good relationships with your local business community throughout the development of your water trail. These leaders can be instrumental in promoting your water trail, and can help inform when and how to hold a signature water-trail event.

BENEFIT FOR LOCAL ENTREPRENEURS

In response to market demand, paddlesports outfitters and tour guides are becoming regular fixtures in communities all over Michigan. The Department of Natural Resources and local municipalities have contracted with local entrepreneurs to provide paddlesport equipment rentals in state and local parks across the state. In some communities, entrepreneurs are offering both small and large group paddling tours.

OUTDOOR RECREATION A TOP ECONOMIC DRIVER

The outdoor recreation industry is now recognized as one of the leading economic drivers in the United States, surpassed only by Financial Services and Insurance and Outpatient Healthcare in terms of consumer spending categories. The impact of outdoor recreation reaches beyond the outdoor industry, directly fueling such major economic sectors as manufacturing, accommodations, food services and retail trade. According to a 2012 report from the OIA, spending on outdoor recreation supports 6.1 million direct jobs and $80 billion in federal, state and local tax revenue. The report states, "Outdoor recreation is a growing and diverse economic super sector that is a vital cornerstone of successful communities that cannot be ignored."

In Michigan, the outdoor recreation industry generates $18.7 billion in consumer spending annually. In addition, it contributes $1.4 billion in state and local tax revenue.

Photo: Northern Swag

CHAPTER 2
PLANNING YOUR WATER TRAIL

Creating a successful and sustainable water trail does not happen overnight. It takes thoughtful consideration, cooperation, a clear vision, and a well-defined plan of action.

LAUNCHING YOUR TRAIL

This chapter describes the planning framework and process for creating a water trail in your community, including four key steps for success. Portions of the framework were adapted from a resource guide for water trail planning developed by the Rivers, Trails and Conservation Assistance Program of the National Park Service.

4 STEPS TOWARD A WATER TRAIL

There are four key steps to creating a successful water trail.

1

GET ORGANIZED

It is important to establish a steering committee of committed stakeholders that will be responsible for organizing and facilitating the planning process and developing a master plan. The steering committee may also help implement goals and action strategies once the plan is complete.

2

CONDUCT AN INVENTORY

Once the general route of the water trail has been identified, the steering committee can begin to inventory the administrative framework, physical characteristics and amenities of the proposed water trail.

3

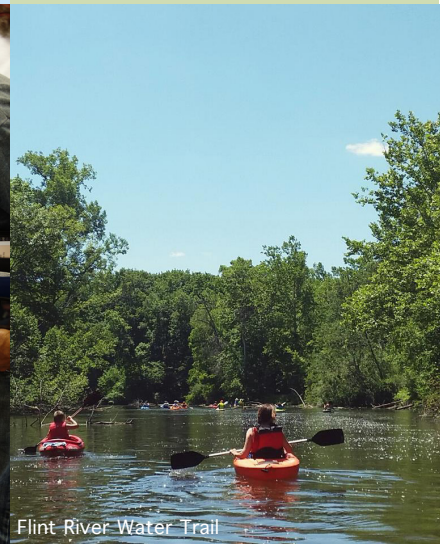
PLAN THE WATER TRAIL

With an inventory complete, the steering committee can begin to develop a master plan for the water trail. The master plan should provide recommendations and actions centered around the operations of the water trail, physical improvements, stewardship and programming opportunities, brand identify, long-term development and maintenance, and short-term and long-term funding.

4

IMPLEMENT

Once the master plan is in place, the steering committee or new management entity is then charged with implementation. This will likely require cooperation with a number of the community organizations and agencies that were involved in Steps 2 and 3.



Flint River Water Trail

STEP 1. GETTING ORGANIZED

Prior to beginning a formal water trail planning process, it is important to establish a steering committee of committed stakeholders that will be responsible for organizing and facilitating the planning process and developing a master plan.

Whenever possible, the steering committee should consist of representatives from a wide variety of organizations and agencies, including state and federal land managers, local public officials, municipal staff members, business owners, cultural organizations, paddlers, engaged citizens and local champions. You may find that at the beginning of the planning process, the steering committee might consist of only a few passionate individuals. However, over the duration of the planning process, the size and expertise of the committee will probably grow.

In most instances, it is helpful to have a staff member from a local unit of government or a local community organization assume the role of project manager. The project manager is responsible for organizing the steering committee with activities such as sending out notices and scheduling meetings, contacting stakeholders, reserving meeting space, providing coffee and other refreshments, and taking notes. The project manager may also be responsible for leading the water trail planning process. In some instances, the steering committee may prefer that the role of project manager be filled by an outside agency or consultant. It is important to note that, in most cases, the project manager role will likely require financial support and other resources.

IDENTIFYING KEY STAKEHOLDERS

The table on the next two pages summarizes a list of individuals and/or groups that would be appropriate to connect with during the initial stakeholder outreach phase. Following each stakeholder is a description of the role they could play in the water trail planning effort as well as a set of sample questions that may be appropriate to ask. Not all of these suggestions will apply to every community, but in general, this process will help to inform an action plan for the water trail with a series of prioritized access-site improvements.

GROUP	ROLE
Watershed Council, Land Conservancy, and/or Conservation District	These groups often have a role in managing water bodies and the associated natural resources. Natural resource managers often see the potential for stewardship and restoration that results from increased emphasis on waterways.
DNR – Forest Resource Division	Manages forest lands along lakes and rivers.
DNR – Wildlife Division	Manages lands and access sites (including state game areas) along many water resources.
DNR – Parks and Recreation Division	Manages state park lands and state boating access sites.
DNR – Trails Section	Develops trails and is the liaison between trail groups and all other divisions.
National Forest Service	Manages forest lands and boating access sites within the national forest.
National Park Service	Manages national parks and access sites within national parks and lakeshores.
Local Units of Government	Early cooperation with local governments is important in ensuring the success of the water trail.
Tribes	Native Americans have a rich history of using waterways for transportation, trading, and sustenance. Tribal lands and Native American reservations are self-governed.
Regional Council of Governments and/ or County Governments	These regional public agencies often have expertise in Geographical Information Systems (GIS) and mapping services, land ownership and parcel delineation, and can provide other technical data sets.
Water Resource Managers (e.g., Drain Commissioners)	County water resource managers have a handle on the system of man-made drains and creeks in the local watershed and can be a useful resource for informing new infrastructure decisions.
Public Safety and Law Enforcement	On the Great Lakes, the Coast Guard can provide information on water conditions, navigating harbors and international waters. The Coast Guard is also a great resource for safety tips. Police and fire/rescue can provide information on local water rescue response protocols.
Property Owners	Landowners are critical to trail development. Getting support and buy-in from adjacent properties early on in the process reduces conflict later on when the water trail is implemented.
Outfitters and Liveries	Existing outfitters and liveries can provide a wealth of information on waterway conditions, recreational paddling trends, and other factors impacting the water trail.
Anglers	Engaging anglers in the planning process can help alleviate conflicts between paddlers and anglers. Additionally, many anglers are also avid paddlers so they can help bridge any divides between the two user groups.
Dam Managers	If your waterway contains any dams, dam managers can provide valuable information on how water levels are managed, how water levels change throughout the year, and the preferred method for navigating around the dam(s).
Paddling Clubs	Local paddling groups often have an intimate knowledge of the waterways and how the conditions change throughout the year. Paddlers can also play an important role in promoting the water trail and raising funds for access site improvements.
Historical Society, Library, Historical Museum, Native American Tribe	Institutions can help provide information about the cultural history and themes of the community. Can help in the development of promotional materials, interpretive signage and programming.
Accessibility and Disability Advocates	Advocates can help evaluate the accessibility of existing access sites and provide suggestions for improvements and modifications.
Environmental Educators	Environmental educators can provide information on existing educational programming offered on the waterway and identify opportunities for new educational programs. They can also identify opportunities for interpretive signage on the water trail.
Economic Development and Tourism Professionals	The regional economic development corporation, Convention and Visitor Bureau or Chamber of Commerce can provide information on any branding or promotion efforts that are currently underway in the area, help inform a marketing strategy for the water trail, and could be potential funding partners.

QUESTIONS TO ASK
What are the ecologically vulnerable areas on the waterway? What actions should be taken to protect the biological integrity of these systems? Who manages the current paddling access points? Are there any water quality issues we should be aware of?
If the water trail is on a designated Natural River, what are the specifics of the zoning district regulations? Is the ordinance administered by the State or by local governments? What types of signage (wayfinding and interpretive) along the river would be appropriate?
What is the formal process for getting DNR parcels approved for access-site development? Would the water trail conflict with other recreational uses like hunting, and when would those conflicts occur?
Are there any scheduled improvements to your access site? Can your access site accommodate an accessible kayak launch? Can we include signage at the access site? Can we create paddle-in campsites? How many auxiliary campsites are in the state park?
Would you be willing to participate in our planning process and can you help direct us to the appropriate contacts in other divisions? Can you tell us how the water trail may connect with other trails in the region?
Are there any scheduled improvements to your access sites and can they accommodate an accessible kayak launch? Can we include signage at the access site? Can we create paddle-in campsites?
Can we use an existing access site in the park as a stop for the water trail?
Would a water trail benefit your community? If so, how? Are you currently planning for paddlesports in your parks and recreation plan or municipal master plan? Does this water trail complement any of your existing planning efforts? Are there any paddling-related infrastructure improvements you are planning to make? Are there any water quality issues?
Can you share any history on how this river/water body has been used and managed historically? Would a water trail benefit your community? If so, how? Does this water trail complement any of your existing planning or recreational efforts?
What data is currently available for this waterway? What form is it in? Does any of the data need to be updated?
Do any county drains feed into this waterway? Would proposed access-site improvements impact the drainage system? Are there opportunities for improving water quality of the water trail through low-impact development (LID) or other green infrastructure techniques?
Are there segments of this water trail that are particularly dangerous? Are there certain times of year when paddlers should be encouraged not to paddle? What is the best way for paddlers to get assistance in the event of an emergency? Are there paddling safety courses available that can be promoted? What types of safety signage should be added and where should it be installed?
Do you or your family members use the waterway for paddling? If so, how could your paddling experience be improved? What has your experience been with other paddlers? Do you have any concerns about paddlers not respecting your personal property? Do you have ideas for steps that could be taken to alleviate any impacts from paddlers using the waterway?
How long have you operated as a livery? What segments of the waterway do you use? What trends have you noticed in paddlers using your livery services? Would an increase in liveries on the waterway negatively or positively impact your business? Do you have any recommendations for access-site improvements?
How often and at what time of year do you fish this waterway? Are there segments of this waterway that would be negatively impacted by an increase in paddlers? What strategies should paddlers use to share the waterway with anglers? Are there times during the day when paddlers should be discouraged from paddling? Are there times during the day and/or season that angler activity is low and paddlers should be
How many dams are located on this waterway? What is the nature and history of the dam(s)? What is the best way to portage around the dam(s)? Do you have any recommendations for infrastructure improvements that would make the portage easier?
How large is your paddling club? What types of activities and paddle events do you organize? Do you hold an annual river or beach cleanup? What opportunities do you see for improving paddling access and the overall paddling experience? Are there opportunities to market this water trail to new user groups and bring in more paddlers to the community?
What should the water trail celebrate? What will the water trail mean for the community? What makes this community or area unique? Are there any historical sites along the waterbody? What role did the waterbody play in the history of the community?
What are the obstacles to accessibility at the launch? What are the obstacles to accessibility for the entire site (bathrooms, parking, routes, etc.)?
What types of environmental education are you currently doing on the waterway? Who are you currently collaborating with? Do you bring culture and history into your activities? Are there opportunities for expanding environmental education on this waterway?
Have you measured the economic impact that paddling has on the local economy? Do you see opportunities for partnering with other groups in the community to promote paddling and use of this water trail?

WHAT TYPE OF WATER TRAIL DO WE WANT?

Once the steering committee is in place, its members should work together to begin to identify a vision and purpose for the water trail. The committee should ask itself: What type of water trail do we want? Is the water trail for experienced paddlers only, or is it for everyone? The answer to these questions may be predicated on the waterbody itself. For example, if the water trail is located along a long stretch of whitewater, then it probably should be planned for experienced paddlers. But typically, given the length and size of most waterbodies in Michigan, the water trail will probably accommodate both experienced and inexperienced paddlers at some point along its route.

Once the committee has identified its target user audience, it will be much easier to plan for the type of amenities that will be needed along the water trail. It will also help solidify the direction of future marketing materials, and help community development and business organizations better evaluate whether the community has the type of amenities (e.g., places to eat, shop and sleep) that the target audience desires.

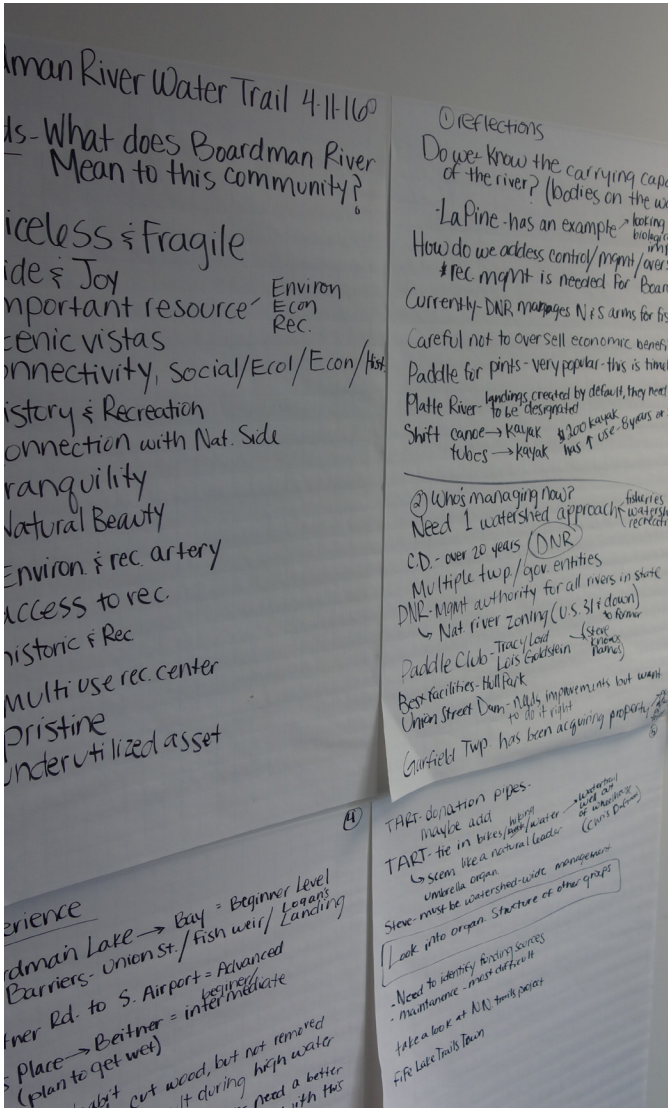
Additional questions to consider when defining the vision and purpose of the water trail might include:

- What values do we want the trail to promote?
- What will the water trail celebrate?
- What will the water trail mean for the community?
- What kind of experiences will the water trail provide?
- What will "success" look like?

During the visioning process, it is also important to identify and discuss what other groups are using the waterbody and what their needs and concerns might be. For example, is there motorboat traffic that will cause potential user conflict in certain areas or at boat launches? Is the water resource used for fishing or hunting? Would the water trail pass along private property or public beaches? American Whitewater provides several useful guidelines on how to manage and minimize user conflicts along a river, how to practice proper river etiquette, and how paddlers can be good ambassadors for a water trail: www.americanwhitewater.org/content/Wiki/stewardship:share_the_river.

The steering committee should understand that defining the vision and purpose for the water trail is an iterative process. The questions listed above should continue to be asked of the steering committee, trail stakeholders and the public, even after the water trail is in place.

At some point in this early planning process, it is important to identify a general route (with a beginning and end point) for the water trail. In some communities with abundant water resources, it might make sense to identify locations for more than one water trail. However, at least initially, it will be important to focus on just one or two water trail routes.



IDENTIFYING ROLES AND RESPONSIBILITIES

Once a framework and vision for the water trail has been established, the steering committee should begin to identify who will be responsible for leading, implementing and sustaining all the different components of the water trail itself. At this early point in the planning process, it might not be feasible to identify all the components of the water trail or who will be responsible for implementing each component. However, over the course of the planning process, some roles and responsibilities will become better defined. Furthermore, because most water trails take several years to fully develop, you may not be able to identify all the roles and responsibilities of certain components until they are phased in and ready for implementation.

One way to begin is to create a spreadsheet of all the different components of a fully developed water trail, an example of which is available in the Appendix. In general, the components of a fully developed water trail can be broken down into five primary components (or activities), and within each primary component is a list of specific activities. This will help you begin to identify responsibility for leading, approving and funding different trail components, and help you develop a timeline for implementation. It's also helpful to identify whose authority (if any) is needed to implement each component.

PROTECTING AND PRESERVING THE TRAIL

To protect and preserve the water resource, it is important for the steering committee to codify sustainability practices that will minimize any impacts of the water trail. The Leave No Trace Center for Outdoor Ethics has a lot of good information on how paddlers can enjoy a water trail responsibly, including the seven principles of Leave No Trace: www.LNT.org.

STEP 2: CONDUCT AN INVENTORY

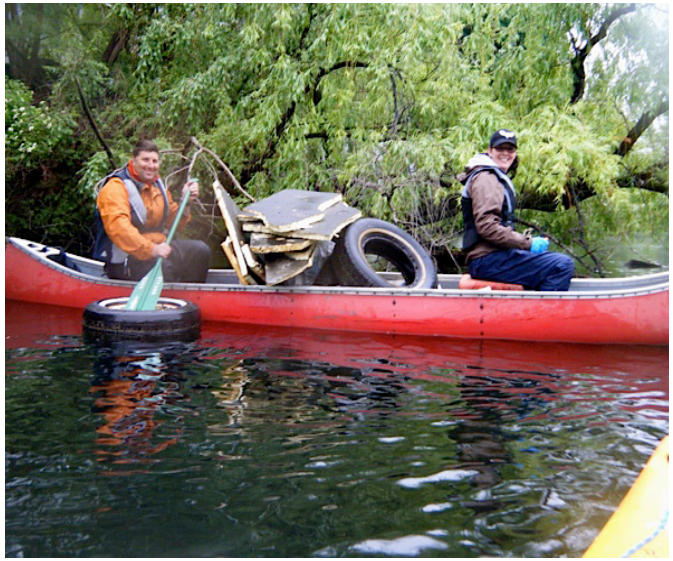
Once a general route of the water trail has been identified, the steering committee can begin to inventory the administrative framework, amenities and physical characteristics of the proposed water trail.

AGENCIES AND ORGANIZATIONS

The first inventory that should be conducted is of all the agencies and organizations that are currently working on, managing and/or planning for the waterbody. It can be helpful to create a matrix of all the agencies and organizations along with their ongoing activities and contact information. This inventory might be fairly easy, as several of the organizations and agencies will most likely already be part of the steering committee. However, you may identify additional agencies and organizations that did not immediately come to mind. It may be necessary to conduct interviews with some of the organizations and agencies that are identified to get a more detailed understanding of their activities.

EXISTING PLANS AND PROGRAMS

In addition, it will important to aggregate and review relevant documents, reports, plans and programs that focus on the waterbody. For example, a regional watershed organization might have a public awareness program centered on eradicating invasive species. A local paddling club may hold an annual river cleanup day. A municipal recreation plan might have specific recommendations for a riverfront park. The tourism bureau may develop community-wide trail maps.



HISTORY

Part of the initial inventory process should also focus on better understanding the history of the waterbody. Historical information about the waterbody can be used to develop interpretive signage at key access sites and form the basis for unique programming. Understanding the original (natural) flow and location of the waterway may also help inform how current management decisions are made. The following questions can help water trail planners better understand the history of the waterbody.

- Was the waterway used for transportation and who traveled the waterway?
- What settlements existed along the waterway?
- Was the waterway used as a food source?
- How has the waterway (and surrounding landscape) been altered by humans or natural processes over time?

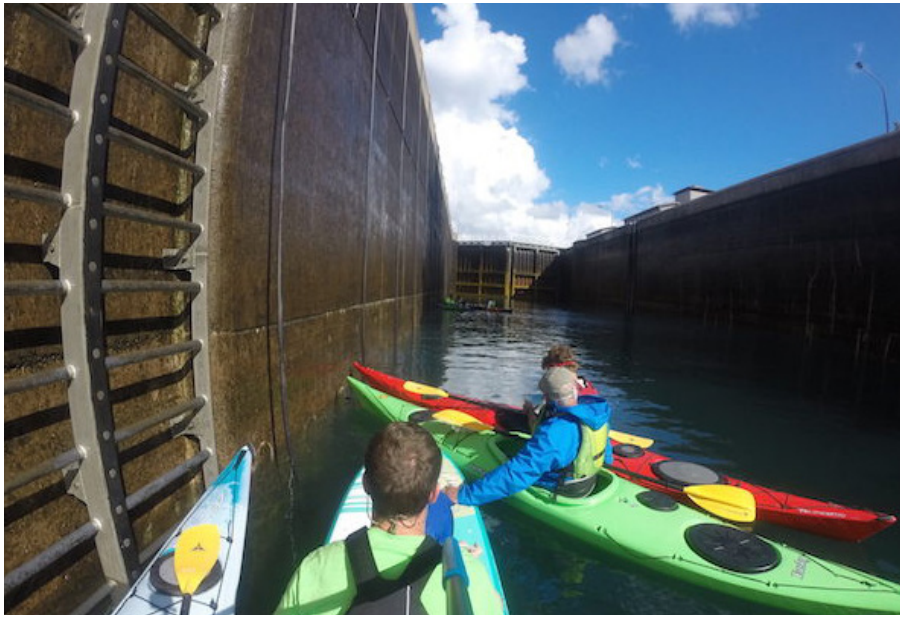
PHYSICAL ATTRIBUTES

The steering committee should also inventory the physical attributes of the proposed water trail and its supporting amenities. Data for this will likely be aggregated from a number of local, regional and state organizations, agencies and municipalities. In addition, it can be useful to review large aerial maps or web-based map programs like Google Maps or Bing Maps.

Start by identifying all the publicly-accessible lands and access sites. A list and description of all public and private access sites can usually be found in a municipal recreation plan or master plan. A list and description of all state-owned access sites can be found on the DNR website, www.michigan.gov/dnr.

Once existing access sites are identified, begin to identify all the known hazards and obstacles of the waterbody. The hazards may include areas of swift water, areas prone to flooding, and areas with heavy woody debris. Obstacles may include

The Soo Locks, Sault Ste. Marie.



dams, culverts, bridges, pipelines and utilities that may require a portage.

Next, it will be important to identify adjacent land uses, zoning regulations, shoreline characteristics (e.g., vegetation, beach or hardened shorelines), parcel data (as needed), local and regional watersheds, and connecting waters.

Finally, the steering committee should work to identify all the points of interest and services along and associated with the waterbody. This may include historical sites, natural areas, unique wildlife (e.g., beaver dam, eagle's nest), industrial sites, liveries and outfitters, campgrounds, parking areas, parks, downtowns, shoreline restaurants, and other service amenities that appeal to paddlers and trail tourists.

Once the physical attributes have been identified and mapped, it will be important to perform site visits to as many attributes as possible. At a minimum, each access site should be visited, assessed and inventoried using the Access Site Inventory Form developed by the Land Information Access Association (LIAA) located in the Appendix. An assessment of ADA-compliant amenities usable by paddlers with disabilities should also be conducted using the Access Recreation Group universal design best practices in Chapter 3. It can be helpful to paddle the waterbody (or at least portions of it) to get a more thorough understanding of its conditions, identify and locate hazards and obstacles, estimate the float time between access sites, and identify any other physical attributes that were not identified in the mapping exercise. It may be a good idea to paddle the waterbody at different times of the year (e.g., early spring and late summer) as the conditions of the waterbody, as well as some hazards and obstacles, probably change. Be sure to take a lot of photos during the site assessments.

Once the physical attributes of the proposed water trail have been compiled, the steering committee can begin to identify gaps and infrastructure needs. For example, are there long stretches without an access site? Are there any parcels where camping could be allowed along the waterbody? How many people can a livery handle on a busy summer day? While there are no hard-and-fast rules and each water trail will be unique, a general rule of thumb for most river-based water trails is that there should be no more than a two-hour gap between access sites; two hours is when most people typically require a bathroom break or need to stretch their legs. Along the Great Lakes, a consortium of water trail advocates has set a goal of no more than five miles between access sites (with a restroom) and no more than 10 miles between paddle-friendly lodging. However, in either case, water trails in more remote areas may have longer gaps between access sites.

STEP 3. PLANNING THE WATER TRAIL

With the inventory complete, the steering committee can begin to develop a master plan for the water trail. The master plan should provide recommendations and actions centered on the operations, physical improvements, brand identity and development of the water trail.

PUBLIC MEETINGS AND OTHER ENGAGEMENT TOOLS

At the beginning of this planning stage, it is important for the steering committee to engage the public. Public meetings are opportunities to educate the community on water trails and the water trail planning process. Some residents and paddlers may be hesitant about the idea of a water trail. Providing an overview of the different types of water trails in Michigan; the economic, cultural, and environmental benefits of water trails; and ways that the water trail will address private property concerns can go a long way in garnering support for the proposed water trail and the planning process.

Public meetings also let people share their personal experiences and values regarding the waterbody. Their feedback will help the steering committee sharpen the purpose and vision of the water trail to match the public's values.

A public meeting also provides an opportunity for citizens to help identify preferred access sites, any potential gaps in the trail, and both concerns and opportunities related to the water trail. It should be noted that in most instances a

proposed water trail will flow by private property, and it is common to encounter concerns and questions from property owners. Given that most water trails pass through multiple jurisdictions, it may be necessary to host two or three public meetings in different communities along the proposed water trail route.

Public feedback, as well as feedback from public officials, can also be secured through presentations to local government boards, civic/service organizations, business associations, property owners and the local paddling club; by hosting interactive tables at community events such as farmers markets, street fairs or festivals; and through mailings, online surveys and social media. Meeting and talking with interested citizens and presenting before local officials early in the planning process will increase the likelihood of buy-in once it's time to implement the plan.

In addition, the steering committee should continue to interview the organizations and agencies they identified in Step 2. The purpose of the interviews is to get a better understanding of the activities each organization is conducting on the waterbody, discuss any opportunities and concerns for the proposed water trail, and build additional support. Building these relationships early on increases the likelihood of buy-in once it's time to implement the plan.

Some organizations and agencies will have multiple staff members responsible for different aspects of a waterbody. Therefore, it will be important to ask each organization to identify which of its representatives should be included in water trail planning. For example, the DNR trail coordinator for your region can help you connect with staff members from other divisions within the DNR.

HOW TO RESPOND TO CONCERNS ABOUT A WATER TRAIL

Inevitably, some people will have concerns about a water trail in your community. Private property owners may be concerned about property damage, trespassing, excessive noise and trash. Environmental organizations may be concerned about carrying capacity and the impacts of more people on the water. Municipal officials may be concerned about appropriating resources for the long-term maintenance of new access sites. It is important to have strategies to respond to these concerns both during the planning process and after the water trail is established.

As previously noted, it is very important that you build relationships with all the community stakeholders that will be affected by the proposed water trail. The following steps can be helpful when responding to concerns during the planning process:

1. Communicate and be clear about your vision for the water trail.
2. Really listen and understand the values and concerns of stakeholders.
3. Address any concerns with honest and accurate information and solutions.
4. Find mutual values and ways that the water trail can enhance these values.
5. Incorporate concerns into your water trail management activities.

Community engagement during the planning process provides a strong foundation for implementation of your water trail.

THE MASTER PLAN

With the inventory and an initial round of public feedback complete, the steering committee should begin to develop the master plan for the water trail. As previously mentioned, the master plan should provide recommendations and actions regarding the operations of the water trail, physical improvements, stewardship and programming opportunities, brand identify, long-term development and maintenance, and short-term and long-term funding.

OPERATIONAL RECOMMENDATIONS

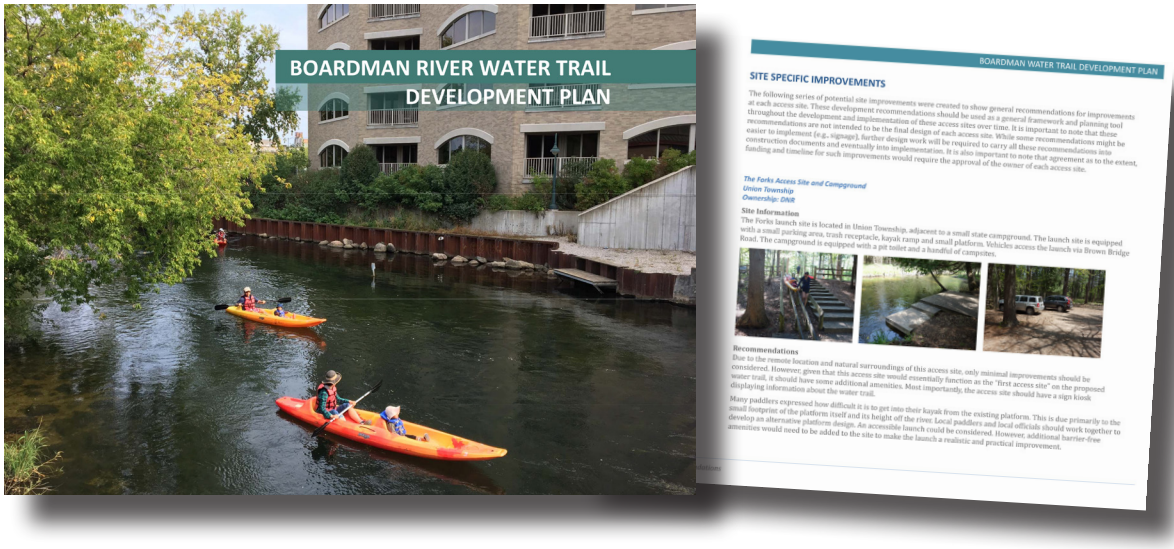
Operational recommendations provide the framework for the long-term development and management of the water trail. Ultimately, some type of formal entity will need to organize and oversee the development and management of the water trail, help secure funding, and make ongoing decisions. This type of entity could come together in several different ways. For example, one jurisdiction or organization could serve as the management entity; a non-profit could be created to serve as the management entity; or local jurisdictions could establish a formal agreement to jointly serve as the management entity. This section of the master plan should discuss the management framework or how the steering committee will work to establish such a framework. This section of the plan should also discuss how the management entity will continue to secure municipal and stakeholder support, including projected revenues and expenditures for the next five years.

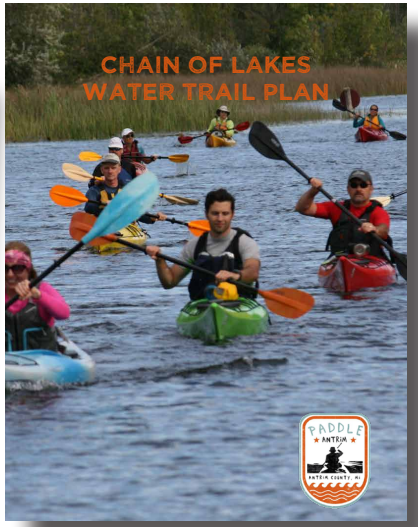
PHYSICAL RECOMMENDATIONS

Physical recommendations should detail specific improvements for the physical components of the water trail, specifically access sites and portages.

STEWARDSHIP AND PROGRAMMING

Stewardship and programming activities will help keep the community invested and involved in the water trail and its future. Often, these efforts will require cooperation with other community stakeholders and waterbody advocates. For example a watershed council could help support educational paddles related to invasive species, water quality and environmental protection. The local school district could help support youth paddling days, and the Coast Guard could help support paddle safety classes. More ideas about how to incorporate programming into your water trail can be found in Chapter 4.





BRAND IDENTITY AND DEVELOPMENT RECOMMENDATIONS

Identity and development recommendations provide the framework for trail branding and identity, education and safety, and leveraging the water trail for economic development. Branding and identity address the development of a logo and other branding pieces, a trail map, a website and trail signage. Brand identity also speaks to promoting the things that make your water trail different from any other trail (e.g., community, heritage, culture, traditions). Education and safety address paddling, water-based and safety programming, and awareness. Leveraging the water trail for economic development refers to ways the community and local business owners can use the water trail to attract and support tourism and new business opportunities.

MAINTENANCE AND FUNDING

As you will see throughout this Manual, there are many physical improvements that could be implemented throughout your water trail system to make it more accommodating to paddlers (e.g., access sites, launches, signage). This requires water trail planners to think about both short- and long-term plans for maintenance and funding. For example, if a water trail sign is damaged, how will water trail officials know about it, how much will it cost to replace it, and who will install it?

In most instances, funding and maintenance will be sourced from a number of public and private resources. For example, a formal partnership with a local jurisdiction could help sustain physical improvements at municipal access sites, and it will be important to secure a commitment from the local jurisdiction before moving forward with physical improvements (see a sample partnership agreement in the Appendix). In other instances, water trail planners will need to raise money from private citizens, hold fundraisers, and apply for public and private grants. When determining how your water trail will be developed, it can be useful to create a five-year plan that includes the types of improvements you will be making and how much funding will be needed. A five-year timeframe should allow you to realistically plan for, fund and implement the short-term development goals of the water trail and better plan for the long-term goals of the trail.

PRIORITIES AND TASKS

The master plan should identify priorities and tasks for each of the targeted recommendations made in the plan. These might include low-hanging projects such as small improvements to existing access sites, and short-term projects like developing sign standards and a trail map. The master plan should represent a development strategy for the first five years of your water trail, including a detailed action plan with a clear

timeline and a description of which organizations and agencies are going to help with implementation.

The master planning process also provides an opportunity for the steering committee to secure resolutions of support from each of the participating municipalities. The resolution should state which access site(s) the jurisdiction will support for the water trail. Due to a number of reasons, local officials might not agree that every access site within their jurisdiction should support the water trail. It will be important to honor that decision and work with only those sites that are approved by local officials. A sample resolution can be found in the Appendix.

When a draft of the plan is complete, it will be important to once again engage the public and the organizations and agencies that were interviewed at the onset of the master planning process. Additional public meetings, conversations with stakeholders, and presentations before municipal bodies will provide an opportunity to review the recommendations, make additional comments and suggestions, and discuss options for implementation.

Friends groups and outfitters should be included in ourtreach efforts.

Downtown Detroit, Kayak and Canoe Magazine

MANAGING EXPECTATIONS AND ACCOMMODATING USE

A fundamental question and dilemma that typically arises during water-trail planning efforts, especially for rivers and small lakes, is something that is often pondered by resource managers: How do we determine the maximum amount of visitor use that a waterbody can accommodate while still achieving and maintaining desired conditions and a visitor experience consistent with the purpose for which the resource was established?

In some instances, the DNR may have already established load limits for a particular river to maintain a desired condition. In instances where there is no official load limit, one way to determine if the needs and activities of stakeholders are balanced is to establish and monitor the expectations for the waterbody and the water trail. That is, when paddling a waterbody (or certain sections of a waterbody), what can people expect about the waterbody and the surrounding environment?

For example, in more natural areas, paddlers can reasonably expect to be surrounded by a natural environment; to have to negotiate around areas of woody debris; to have minimal exposure to trash and large groups of paddlers; and to be served by generally informal amenities — gravel parking lots, vault toilets, simple landings and minimal signage.

On the other hand, when paddling through more urban areas, paddlers can expect to see some natural elements interspersed with a hardened shoreline, and should expect more exposure to other people (such as other boaters, anglers, and private property owners). As a result of the additional interaction, paddlers should also expect to have more exposure to trash and larger groups of paddlers. Paddlers in more urban settings also expect to be supported with more formal amenities — paved parking lots, restrooms, trash receptacles, accessible launches, signage, kayak storage, and links to nearby businesses and amenities.

The water trail's management entity, public officials, community stakeholders, interested citizens and the paddling community must continually work together to determine if these expectations are being met and if they are changing. If expectations do change, the partners must then determine how these new expectations will be best managed.

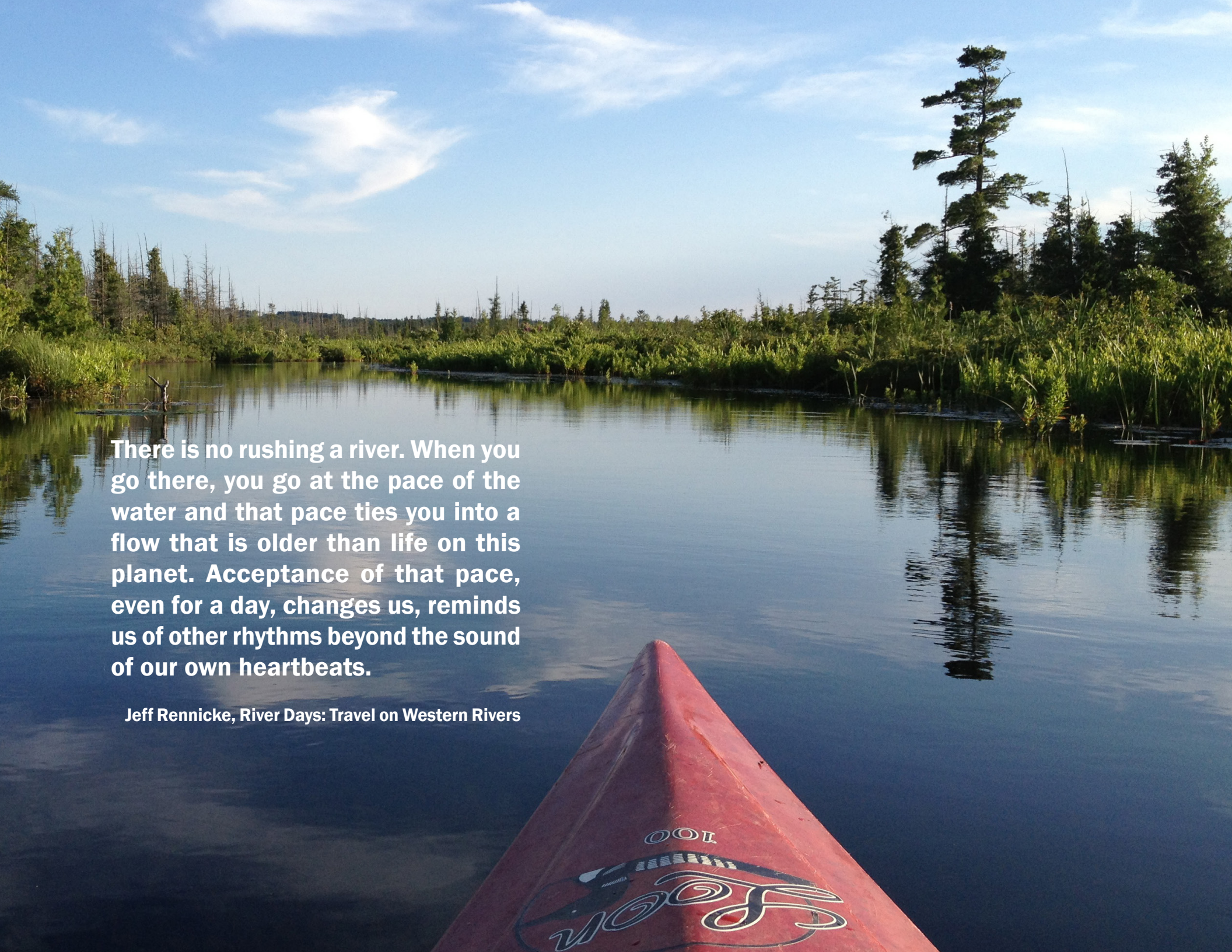
STEP 4. IMPLEMENTATION

Once the master plan is in place, the steering committee or new management entity is then charged with implementation.

This will likely require cooperation with a number of the community organizations and agencies that were involved in Steps 2 and 3. In addition, it will likely require obtaining additional funding and resources. It can be helpful to include language from the master plan — especially language about land acquisition and access-site development — in the recreation plans of each participating municipality, as these projects may then be eligible for grant awards from the Michigan Natural Resources Trust Fund (MNRTF) and Michigan's Coastal Zone Management Program (CZMP), among others. The following chapters address implementation in greater detail.

The River Raisin in Monroe.

The Boardman River in Traverse City.



There is no rushing a river. When you go there, you go at the pace of the water and that pace ties you into a flow that is older than life on this planet. Acceptance of that pace, even for a day, changes us, reminds us of other rhythms beyond the sound of our own heartbeats.

Jeff Rennicke, River Days: Travel on Western Rivers

CHAPTER 3
WATER TRAIL AMENITIES

The type, extent and condition of amenities along your water trail can shape the image of the trail. Amenities such as parking, restrooms, a universally accessible launch, a staging area, potable water, and interpretive and directional signage all work together to welcome paddlers and enhance their experiences on the trail.

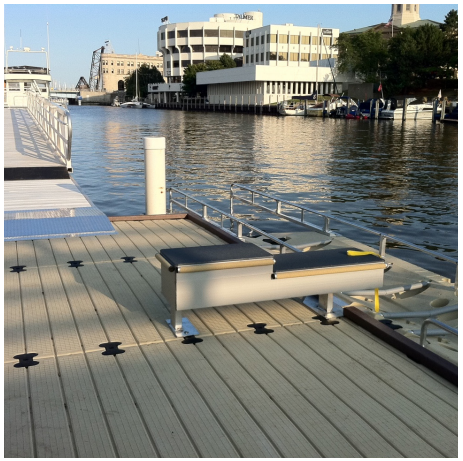
ACCESS-SITE AMENITIES

The placement, design and extent of amenities at your access sites will depend on where each access site is located, the physical constraints of the site, and who owns and manages the site.

If your access site is part of a large municipal park complex or marina, it likely already has or can accommodate a number of amenities. These amenities may include a formal launch (including an accessible launch); a paved/marked parking lot that can accommodate trailers; bathrooms; trash receptacles; potable water; picnic tables; shelter; lockers; a boat rack; a charging station for electronic devices; wayfinding signage; and an informative kiosk.

If your access site is at a road-end or rural location, amenities might include a launch, some form of legal parking (e.g., gravel parking lot or public right-of-way), a trash receptacle, a vault toilet, and wayfinding signage.

If your access site is in a remote area, where the site owner is permitting paddlers to land a watercraft but access from a road is non-existent, then the only amenity might be wayfinding signage.



Prior to developing any plans for new and/or expanded amenities at an existing access site, be sure to clearly understand who owns and manages the site. Some agencies may have specific rules and procedures about what amenities are (or are not) allowed.

There are no hard-and-fast rules for what type of amenities should be included at any access site. A general rule of thumb is that the extent of the amenities should be congruent with the surrounding environment in which the access site is located. However, just a few amenities can help support sustainable practices along the water trail and establish a positive paddling experience. For example, a trash receptacle can help reduce litter; a sign or marker helps assure paddlers of their location on the water; and a well-maintained launch is easier to use and encourages appropriate access to the water.

A few amenities can help support conscientious use of the water trail and establish a positive paddling experience.

RESTROOMS

One of the most important amenities for a developed access site along a water trail is a bathroom. Formal bathrooms not only provide toilet facilities, but often they are used by paddlers to fill water bottles, freshen up and change clothes. Many communities close their traditional brick-and-mortar bathrooms in the early fall, even though paddlers may still use the access site well into the winter months. Conversely, a warm early spring typically means paddlers will access the water before brick-and-mortar bathrooms open up again. If year-round access to bathroom facilities is not feasible, the local operator should provide portable bathroom facilities. When building a new brick-and-mortar bathroom, consider installing at least one accessible "family bathroom" to accommodate parents with small children of the opposite sex or people with disabilities who may have a spouse or caretaker of the opposite sex.

In areas that are more remote, a vault toilet or composting toilet can be considered. Regardless of the type of restroom along the water trail, it will require regular general maintenance and cleaning.

RESTROOMS

There are no established standards for the number of bathrooms that should be placed along a water trail. However, a general rule of thumb is that most paddlers will need to use the bathroom after about two hours of paddling.

Formal bathrooms near water trails are also used by boaters, park users and beachgoers. Formal bathrooms may also include lockers, changing rooms and showers. Pictured: Silver Beach, St. Joseph.

Vault toilets can be located in more remote areas. Pictured: A vault toilet along the Boardman River near Traverse City.

Portable bathrooms can be placed at busy access sites or access sites where more formal bathroom facilities are not feasible.

PARKING

The location and design of parking areas can have a significant impact on your access site. Paved parking lots (and the launch) should be designed so water from the rest of the surrounding site does not drain across the parking lot. In addition, the parking lot should be designed so water from the parking lot does not drain into the waterway. Vegetation and stormwater management practices should be included in any parking lot design.

Generous-sized parking stalls (10 feet wide and 20 feet long) will better help to accommodate boats, gear and people. All parking areas should have at least one designated accessible car/trailer parking stall. Loading lanes allow paddlers to unload gear and people before parking and without blocking traffic. In addition, wherever possible, parking lots should include a vehicle turn-around option.

Long parking stalls will better accommodate vehicles with trailers. Pictured: North Channel DNR Boat Launch, Algonac.

BOAT RACK

Boat racks allow paddlers to safely secure their watercraft at an access site. A secure boat rack can be especially useful when paddlers leave to retrieve a car from another access site, or in developed areas where paddlers would like to venture into a business district to eat and relax. Some communities rent out boat racks to allow residents to keep their kayaks near the water for the entire season, then use the rental fees to help maintain the access site. The size and material of a boat rack may vary depending on the physical characteristics of an access site. However, a rack should be able to accommodate sea kayaks (which can be as long as 24 feet) and some type of secure locking system.

HOSE OR BOAT WASHING STATION

To help reduce the spread of aquatic invasive species, a hose or boat washing station can be placed at your access sites. A hose or boat washing station allows paddlers to clean off any visible aquatic plants, animals, and mud from their watercraft and gear (paddles, floats, ropes, anchors, nets and trailers) before leaving the access site.

BOAT SLIDE

A boat slide can help paddlers maneuver their boat up and down steep slopes, or around large obstacles such as dams.

Barton Dam Slide, Huron River. Huron River Watershed Council.

A kayak cage allows paddlers to secure their boat and gear.

This kayak rack in Rochester can safely store up to six boats.

This simple rack in Utica allows paddlers to lock up their kayaks to venture away from the water.

LAUNCH DESIGN OPTIONS

The location and design of a launch should balance the needs and convenience of the paddler with the needs of other water resources users (e.g., boaters, anglers) and the potential impacts on wildlife and the surrounding environment, both above and below the water.

At the same time, the launch (and the surrounding launch site) is the point at which the trail user may first come in contact with the water trail. A launch site that is welcoming, well-maintained, and minimizes the stress for paddlers moving gear from their vehicle to the water creates a positive experience and image for the water trail as well as the surrounding community.

LAUNCH PLACEMENT, GENERAL CONSIDERATIONS

Whenever possible, it can be helpful and economical to utilize existing launch sites along your waterbody as part of your water trail. In many cases, you might need to make only slight improvements to existing access sites.

When building new access sites, the design and placement of the launch should be appropriate for the physical characteristics of the launch site. Characteristics to consider include the type of water body (e.g., river, lake or bay); the depth of the water; visibility from both the river and shore; the potential for conflict with other users; water-level fluctuations; the availability of supporting amenities (e.g., bathroom, shelter, parking); cost; the stability of the shoreline; and site ownership.

Due to the complexity of constructing a new access site and launch, local officials will need to procure the services of a certified engineer. The launch should be designed in accordance with local and state regulations and accessibility requirements. For example, most launches or docks will require a permit from the Michigan DEQ, and most launches on the Great Lakes and their connecting waterways will also require a permit from the U.S. Army Corps of Engineers. Local ordinances and certain waterway designations may also limit the type of launch that is allowed.

LAUNCH TYPES

Information about each launch type was developed by the River Management Society of the National Park Service in its comprehensive guidebook, "Prepare to Launch," available at www.river-management.org/prepare-to-launch.

CHANGING WATER LEVELS

The water levels of many waterbodies in Michigan can change substantially throughout the year and/or on a year-to-year basis. It is important to talk with local paddlers and water advocates to better understand water level fluctuations and plan for an appropriate launch. In some instances, launches may have to be removed or simply will not be able to be used during periods of high or low water.

LAUNCH PLACEMENT, BY WATER BODY

RIVER OR STREAM

When building a launch on a river or stream, it is important to consider the river's morphology (the change in shape of the river over time). River morphology is based on a number of environmental factors, including river flow, sediment deposition, erosion, climate and landforms. Areas of heavy water flow should generally be avoided for launch sites, as they can cause wear-and-tear on the site over time and can be hazardous to paddlers. However, having some moving water will prevent excessive sediment accumulation that could create another obstacle for paddlers. Local water-trail planners should review daily and average water level statistics from the U.S. Geological Survey (USGS) before constructing any new launch site.

In general, a launch on a river should be located on a straight section of river with low riverbanks. Low riverbanks often offer both shallow and deeper water areas for launching. Launches can also be located along sections of a river with high riverbanks, but additional infrastructure (e.g., floating dock, gangway) will likely be needed to bring paddlers safely down to the water. A launch on a river with whitewater or rapids should be located near eddies or calmer sections of the river whenever possible.

INLAND LAKES

Whenever possible, access sites on inland lakes should be located in protected areas with little or no erosion problems and minimal exposure to wind and currents. Marshy areas should also be avoided, as they can be difficult for paddlers to navigate and are likely to host fragile ecosystems.

THE GREAT LAKES

Access sites on the Great Lakes should be located in areas that are protected from waves and wind. Given that much of the Great Lakes coastline is continually exposed to these elements, launches need to be constructed to account for heavy waves and storm surge, as well as seasonal and decadal fluctuations in lake levels. Changes in lake levels may also expose large rocks, old pilings and other hazards that may pose risks to paddlers. Large public beaches, inland harbors and connected waterways are ideal locations for paddlers looking to access the Great Lakes.

Launches on rivers should be located on straight stretches of the river with low riverbanks.

Launches on inland lakes should be located in protected areas with little or no erosion problems and minimal exposure to wind and currents.

Inland harbors are ideal locations for accessing the Great Lakes.

PHYSICAL ELEMENTS OF LAUNCHES

5

The following five physical elements should be considered when determining the type of launch(es) appropriate for your community.

1

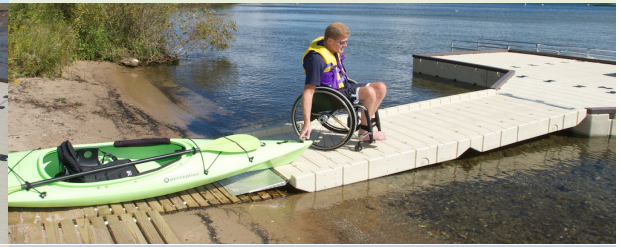
SURFACES

Paddlers of all abilities want firm and stable surfaces that support all their movements and allow for easy entry into their watercraft and the water. Sufficient space to accommodate the length of their watercraft is also important.

2

SLOPE

The slope of the launch ramp – the change in elevation from the top of the launch to the bottom of the launch – should stay below 8% whenever possible.



3

HEIGHT ABOVE WATER

The launch surface should be as close to the water as possible. If a dock is the only way to gain access to the water, try to have the decking as close to the water level as possible.

4

WATER DEPTH

Kayaks and canoes generally need a minimum of 5 inches of water to float.

5

STAGING AREA

Staging areas are used by paddlers to assemble their gear, load their watercraft, and put on their personal flotation devices. Ideally, the staging area should be located near the parking lot or within 50 yards of the water's edge. The walking path from the parking lot to the staging area should be at least 6 feet wide. The staging area should be wide and long enough to accommodate all types of paddle watercraft.

LAUNCH TYPES

There are a number of different launch types that are effective at providing water access for paddlers. The following section is meant to help you select the appropriate launch design(s) for your water trail, with information developed by the River Management Society of the National Park Service.

NATURAL SURFACE LAUNCHES

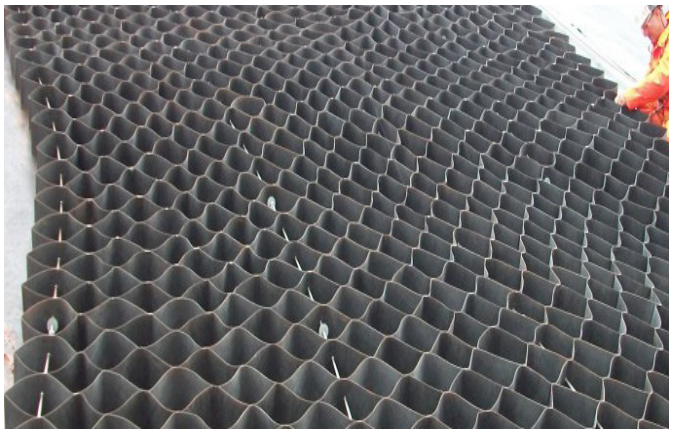
Natural surface launches are launches located along riverbanks, flat rock outcrops, beaches or shorelines with a deck or boardwalk. Natural surface launches typically require little to no construction. Natural surface launches can be used in areas with low shorelines, modest currents, and water depths that allow for stable launching without damage to the watercraft. If needed, gravel can be used to form simple ramps, preferably in areas with minimal wave action or water fluctuation. In some instances, matting can be used to temporarily stabilize a sandy beach.

ADVANTAGES

- Cost effective with little to no maintenance.
- Low environmental impact due to minimal construction.
- Aesthetically pleasing, given the minimal alteration of the natural shoreline.
- Shoreline and beach can provide easy anchorage.

DISADVANTAGES

- Access site may not be consistently accessible due to water fluctuations.
- Rocky launches can be slippery or difficult to maneuver around when wet.
- Could cause erosion and damage to surrounding shoreline if used heavily.
- Not always easily spotted from the water (especially without a sign or marker).
- Unstable shore surfaces can pose greater difficulties for users, particularly users with disabilities.



GEOTEXTILE MATS

Geotextile mats are lightweight mats composed of open cells that allow water to pass through. These mats are often used in environmentally sensitive areas because they can enable access to the water without significantly disrupting the natural habitat. The mats can also be employed to help stabilize shorelines. Comparably-shaped concrete mats provide similar benefits.

ADVANTAGES

- Can be lightweight.
- Typically made of recycled polyethylene.
- Allow light to penetrate open panel areas.
- Do not rot.
- Help stabilize surfaces, which improves accessiblity for all users.

DISADVANTAGES

- Can be more expensive than other materials.
- Require the use of special tools and installation knowledge.
- Can create potentially dangerous strainers, downriver or elsewhere on a water body, if erosion causes blocks to separate and scatter in the water.

CONCRETE MATS

Concrete mats are composed of concrete (or other hardened material) and also allow water to filter through. Concrete mats can follow the slope of a bank and often do not require extensive cutting or filling. However, installing a concrete mat will require heavy equipment such as an excavator or crane.

ADVANTAGES

- Can typically be used on a shoreline without significant alteration to its slope.
- Reduced need for regular maintenance.
- Due to the soil and/or gravel placed between the blocks, the mat is less intrusive to the natural shoreline.
- Can provide shared access with motor boats.

DISADVANTAGES

- Require heavy equipment to install, which can damage the shoreline during installation.
- Can provide shared access with motor boats.

CONCRETE RAMPS

Concrete ramps may be used as stand-alone launches, or combined with other launch features (such as a floating launch or dock) to provide water access for paddlers. Pre-cast concrete planks and panels should only be used in bodies of water with little to no current. Reinforced concrete is often used for underwater sections of the pre-cast ramp, and reinforced concrete can also be used above the water. A surface finish is often applied to concrete ramps to increase traction, though such a finish could create additional barriers for wheelchair use.

ADVANTAGES

- Often proves the most stable, sturdy surface for launching.
- Very durable and require little maintenance.
- Easy to shape and adaptable to different slopes.
- Notable presence can assist paddlers with locating take-outs from the water.

DISADVANTAGES

- Surface can be slippery when wet.
- Can be damaged or crack due to freezing and thawing conditions.
- Require heavy equipment to install, which can damage the shoreline during installation.

CONCRETE STAIRS

Concrete stairs can be very effective in providing access along steep shorelines and in areas where water levels change dramatically. Concrete stairs can be poured into molds with reinforced rebar or built using pre-molded concrete slabs. If the steps are tapered in width as they descend to the water, the bottom steps should be wider; paddlers prefer between 6 feet to 12 feet for launching. In addition, hand rails and boat slides may be added to allow paddlers to more easily access the water. Concrete stairs are inappropriate for areas with high scour or high sediment deposition, or where debris and ice are likely to damage the stairs.

ADVANTAGES

- Very durable and require relatively little maintenance.
- Provide access along steep slopes.
- Can be combined with hand rails and boat slides to provide easier transport of boats to the water.

DISADVANTAGES

- Typically are not accessible for people with disabilities who use a wheelchair or other mobility device.
- Can be expensive to build.
- May require the use of heavy equipment for installation.
- Long-term maintenance is typically done by hand.

WOODEN STAIRS

Wooden stairs are a cost-effective alternative to concrete stairs along steep shorelines. Timber can be easily cut and shaped to meet unique site specifications and may be built into a steep shoreline in a variety of manners. The launch area at the base of the stairs should be protected from excessive currents in order to prevent erosion or undercutting. In addition, the launch area at the base of the stairs should be sturdy and able to withstand changing water levels and currents.

ADVANTAGES

- Typically easy and inexpensive to repair, if damaged.
- Less disruptive to the natural shoreline than concrete.

DISADVANTAGES

- Typically are not accessible for people with disabilities who use a wheelchair or other mobility device.
- May be susceptible to erosion or undercutting.
- May require maintenance as stairs age and weather.

DOCKS AND PIERS

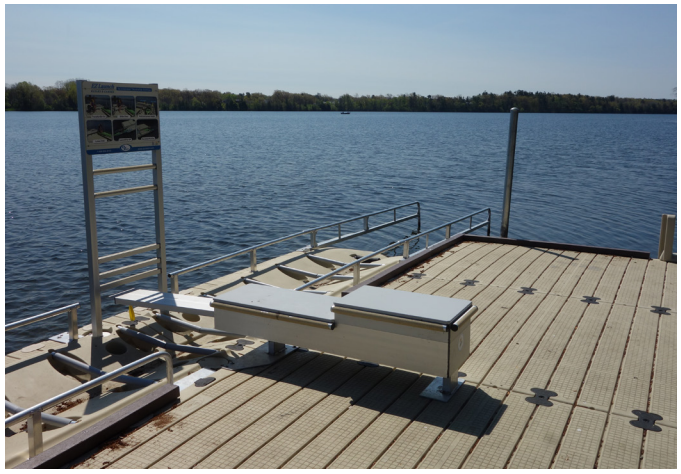
Docks and piers can be used as stand-alone launches or combined with other launch features to provide access to the water for paddlers. They are often used to span marshes or shallow areas to enable launching in water of sufficient depth. In some instances, large boardwalks or walkway structures will be needed to provide access to the launch itself. Docks and piers are typically made of treated wood or concrete. Whenever possible, the water level should be lower than the level of the dock at all times.

ADVANTAGES

- Effective in areas with a strong current.
- Stable surface for launching.
- Relatively inexpensive.
- Easily visible by paddlers from the water.

DISADVANTAGES

- Do not accommodate extreme variations in water level.
- Pilings can have harmful environmental impacts over time, such as altering currents if they disrupt flows or sediments.



FLOATING LAUNCHES

Composed of a deck, frame and floats, floating launches are structures that are anchored to the shore rather than built in to the bottom of the water. Paddlers launch from the deck, which is supported by the frame, while the floats beneath the frame provide buoyancy. Anchoring devices help to stabilize the launch and protect it from the elements. Pile guides allow the launch to adjust to changing water levels while keeping the deck horizontal and steady, making the launches more accessible to paddlers with disabilities. Floating docks with transfer benches make it easier for everyone to board and launch boats without tipping or getting wet. Floating launches are most effective when used on water with little debris and minimal exposure to strong currents or waves. Floating launches should be removed and secured during times of heavy flooding and removed before freezing occurs.

ADVANTAGES

- Adjust to fluctuating water levels.
- Provide a sturdy surface and a solution to unsafe conditions or inconvenient areas.
- Easy to purchase, assemble and remove.
- Not as slippery as launches with sloped surfaces.
- Help to keep feet dry.

DISADVANTAGES

- Not appropriate in all locations — use should be limited to areas where the minimum water depth is at least three feet at all times.
- The anchoring process must be well thought out and executed — weather and site conditions (e.g., wind, waves and current) have to be considered and accounted for.

UNIVERSALLY ACCESSIBLE LAUNCHES

According to the 2010 U.S. Census, there are approximately 56.7 million Americans (roughly 18% of the population) living with some type of disability characteristic. Every effort should be made to make your water trail accessible to people with disabilities.

People with disabilities enjoy paddling with friends and family just like everyone else. Therefore, it is important to make launch sites inclusive, universally accessible and easy to use by everyone together.

UNIVERSALLY ACCESSIBLE LAUNCH FEATURES

Clinch Park, Traverse City.

WHAT MAKES AN ACCESS SITE "ACCESSIBLE?"

There are two approaches to consider when looking to develop an accessible access site along your water trail.

In 2010, the Americans with Disabilities Act (ADA) established guidelines for newly designed, constructed and altered recreation facilities. The guidelines require that all public boat launches (which include fixed and floating structures of all sizes) comply with ADA Accessibility Guidelines (ADAAG). These guidelines support previously established standards that address the traditional amenities of the surrounding access sites (e.g., routes, parking, restrooms, etc.). While these guidelines are well intentioned, they represent the minimum legal standards for accessibility.

While compliance with ADA guidelines is required, more and more communities are choosing to embrace the principles of "universal design." More of an inclusive and holistic philosophy rather than a legal requirement, universal design aims to create solutions that work for everyone, of all ages and abilities, together.

Whether a person uses a wheelchair, has knee or hip issues, has difficulty balancing, or just likes dry feet, paddlers of all abilities want to launch and land smoothly without capsizing or damaging their watercraft. They also want firm surfaces that support their movement from their arrival place to the launch at the water's edge, and sufficient space to accommodate the length of their watercraft during transitions into and out of their boat and into and out of the water.

There are a handful of launch systems that can be purchased and installed along your water trail to provide a stable system for boarding and exiting kayaks and canoes. One of the most popular launch systems currently on the market that incorporates the principles of universal design is the EZ Launch by EZ Dock. Currently installed in over 100 communities throughout Michigan, the EZ Launch System features a large floating platform, guiderails, rollers and a transfer bench. This system meets and exceeds all the accessible design requirements for clear space, maneuvering space, reach ranges, force for operating mechanisms, transfers, signage and information.

The following site-design features and amenities should be considered when providing for inclusive and universally accessible launch sites.

A boarding bench allows a paddler to center over his vessel.

Gangways and ramps should have slopes less than 8.33%.

LAUNCH

- A universally accessible canoe/kayak launch system (with the features listed below) that is connected to an accessible route, placed in a location that doesn't conflict with a traditional boat launch, and is at least 25 feet long to allow paddlers dry access to the entire length of their vessel when preparing to enter/exit the vessel.
- Gangway and ramp slopes that are below 8.33%.
- A means of transfer/boarding assistance, such as a boarding bench, that centers the paddler over the vessel.
- Pull rails and rollers to assist moving the vessel into and out of the water on a surface that stabilizes the craft and doesn't damage the bottom of the vessel.
- If there is not an accessible launch system, provide a good description (and photo) of the water's edge exit/entry point so the paddler can decide if it is usable before approaching the water.

LAND-SIDE FACILITIES

- Improved surface route, 6 to 12 feet wide with slopes no greater than 5%, from the parking lot to restrooms, potable water source, information kiosk, and launch.
- Routes that have switchback turns need level landings at every change of direction, and the landing should be large enough for the individual to carry down and turn the vessel without stepping off the route surface.
- Accessible restrooms with at least one universally accessible single-user unisex restroom.
- Accessible potable water source that is approachable on all sides, operable with one hand, doesn't require pinch-grasp or wrist-twist, and requires less than 5 pounds of force to operate.
- Kiosk information provided in accessible formats and approachable via accessible surface surrounding kiosk.
- Accessible parking space(s) located nearest to the accessible route to the launch.

A solar-powered accessible launch in Wyandotte raises and lowers paddlers into the water.

Depending on the physical limitations of your launch area, the gangway from the shoreline to the accessible launch may be quite extensive. This example is in Port Huron.

SIGNAGE

Signs and markers are essential components of a water trail system. Water trail signage includes all signs associated with wayfinding, navigation and use information viewed from both land and water. In addition, interpretive signs can provide information about the unique environmental, cultural and historical features associated with the water trail and surrounding community. In some instances, information about nearby business amenities (e.g., where to eat, sleep and shop) can also be helpful.

LAND-BASED WAYFINDING SIGNAGE

Wayfinding signs are meant to direct visitors to the primary assets and features of your community, and your water trail system is just such an asset. In addition, wayfinding signs to your launch locations are often the first interaction paddlers will have with your water trail.

In general, land-based wayfinding signs should be simple and straightforward. Avoid the use of logos and icons unless they are simple and can be clearly identified within the spatial confines of the sign.

A minimal sequence of signs is recommended to communicate driving directions:

1. A simple water trail (paddling) symbol and directional arrow should be installed on the primary roadway that provides the most direct route to the access site.
2. Signage at the last primary road turnoff to the launch should include the water trail symbol, the access site number, and a directional arrow with miles.
3. Signage at the launch turn-in should include the water trail symbol and the access site number. A directional arrow could also be included on the launch turn-in sign if the access site is down a small unmarked drive.

In general, the size of the water trail symbol should be between 18 and 24 square inches, and the size of the access site number and arrow identifier should be between 6 and 12 inches high and between 18 and 24 inches long. In all instances, the water trail symbol should be at the top of the sign.

Launch locations are often located inside municipal parks and marinas. Whenever possible, it can be helpful to display the water trail symbol on the entrance sign and on wayfinding signs of the park.

Many communities throughout Michigan, especially in their downtown area, already have an extensive wayfinding system in place. In many of these communities, the assets or features on the sign are spelled out instead of being displayed as symbols. Therefore, it is important to spell out "Water Trail" on wayfinding signage.

Wayfinding signs on Michigan roadways must adhere to guidelines established by the U.S. Department of Transportation Federal Highway Administration. A full copy of these guidelines can be found in the Administration's Manual on Uniform Traffic Control Devices (MUTCD) at https://mutcd.fhwa.dot.gov.

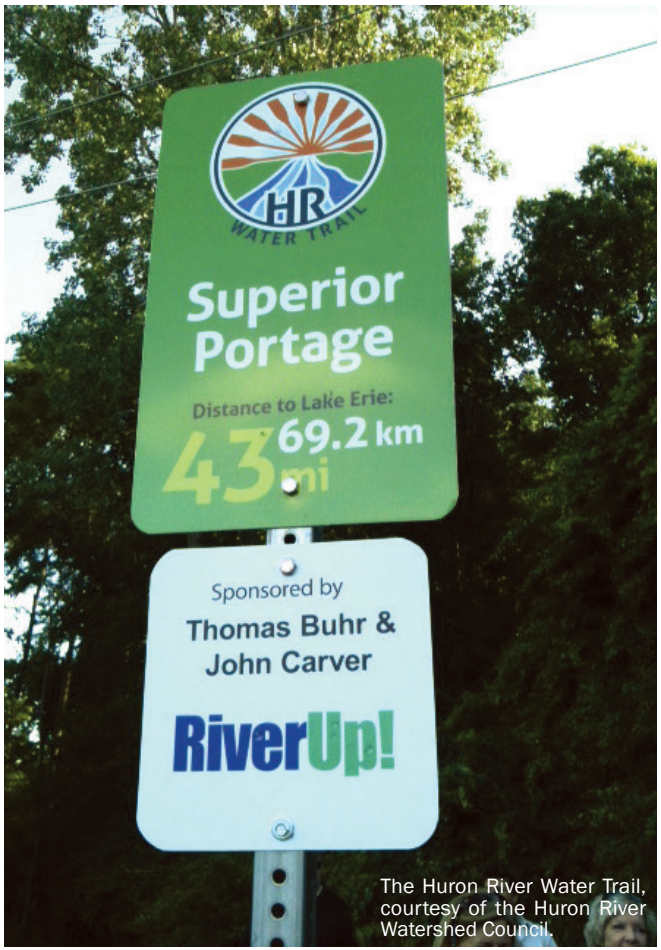
ACCESS-SITE SIGNAGE FROM THE WATER

The placement and size of access-site signage will depend on the physical characteristics of the access site. Ideally, the access-site sign should be in a spot that is visible from both the water and land. Signs viewed from the water should be designed and placed to promote clear visibility for paddlers without being obstructive. No matter what type of sign or marker you use to identify the access site from the water, it is very important to get the permission and approval of the land owner prior to placement.

To maintain visual continuity throughout your water trail system, elements like font type and size, color, and other aesthetic features (e.g., logo) should be consistent. The size of the font may depend on the current of the adjacent water body. For example, if the access site is located on a swift river, then the font size should be fairly large so that paddlers can see it even if they are moving quickly. For access sites on big bodies of water where paddlers may be farther away from the shoreline, the color of the entire access-site sign may be more important.

Based on their readability, compliance with ADA guidelines and accessibility, Frutiger and Arial fonts are generally regarded as acceptable fonts. In regard to the size of the text, the Society of Environmental Graphic Design (SEGD) notes as a general rule of thumb that every one inch of letter height provides about 25 feet of readability. For example, if your launch is 50 feet from your sign, text should be 2 inches high.

The minimum information to be displayed on the water side of the sign should be "access" or "access site" and the access site number. River miles are typically calculated beginning with 0 (zero) at the mouth of the river and progressing upstream. Therefore, the first access-site number should correspond to the access site closest to the mouth of the river. Depending on its size and design, the access sign could include additional information, such as the name of the access site; the direction, distance and name of the next nearest access site(s); or whether the site has restrooms, picnic facilities, parking or other amenities. A logo and emergency information could also be placed on the sign. Uniquely colored windsocks or flags can also be used to better assist paddlers in identifying access sites from the water.



The Huron River Water Trail, courtesy of the Huron River Watershed Council.

SIGN KIOSKS

In addition to the access sign, a sign kiosk could also be placed at the access site. Much like the access sign, the placement and size of a sign kiosk will depend on the physical characteristics of the site. Because a sign kiosk is not meant to be read from the water, it can be placed farther away from the shoreline, usually near the staging area or parking lot area. A sign kiosk is probably best suited for a more formal access site, but even remote access sites may have an interesting story and/or historic image that could be placed on a small sign or kiosk.

A sign kiosk will typically include a map of the water trail as well as information about the amenities at the access site, safety tips and warnings, emergency information, and any rules and regulations. If the kiosk has multiple panels, it could include information about the unique environmental, cultural and historical features associated with the water trail, a map of the surrounding community, and information about nearby business offerings. Whenever possible, sign kiosks should be placed on an accessible route, and at a height that is accessible to all audiences, including people in wheelchairs and children.

ON-THE-WATER SIGNS

Signage along the shoreline that is visible from the water may include warning signs, directional signs for portages, and signs with navigational arrows. Whenever possible, signs viewed from the water should be designed and placed to promote visibility without being obstructive. Signs should be reflective and made from aluminum.

On water trails with long distances between access sites, signs that indicate the name or number of, and the distance to, the next access site can be reassuring to paddlers. At remote access sites or temporary rest areas, the simple name or number of the access site may be more appropriate than a large access-site sign.

BRIDGE SIGNS

Bridges provide an opportunity to deliver locational information to paddlers, as well as the identifying number of and distance to the next access site. It is important to work with the local road agency to determine if and to what extent a sign may be placed on a bridge. The size of the sign can be determined on a case-by-case basis, but it is often based on the size, height and ownership of the bridge. In some instances, stencils may be cheaper and more appropriate than manufactured signs.

Photo: The Huron River Watershed Council.

SAFETY MARKERS

Signs can also be used to support safety and emergency responses along the water trail. In most instances, safety markers may only be needed for hazardous sections of the water trail or to alert paddlers of dams or other impediments. However, some communities may wish to explore placing safety markers at regular intervals along the entire water trail. This effort can be quite difficult, as water trail planners would need to secure approval from multiple land owners for sign placement and establish a regular sign maintenance program. Furthermore, too many safety markers (sign clutter) along the water trail may degrade the natural

appearance of the water trail corridor. Signs can be placed on bridges or other permanently fixed features (e.g., building, boardwalk) to help paddlers better identify their location on the water trail. It will be important to work with your local and/or regional public safety agencies to identify the optimal location and placement of any safety markers and how they will coordinate with any first response effort. A discussion about safety markers with public safety agencies can also help spark other conversations regarding additional equipment needs for water rescue (e.g., appropriate boat, gear) and coordinated public awareness efforts.

If a community wants to pursue safety markers at regular intervals along its water trail, planners can work with its public safety agency to place small numbered signs along the water trail that correspond to an internal Geographic Information system (GIS). The linked system will allow public safety officers to better locate and respond to emergencies along the water trail.

If the water trail passes through multiple jurisdictions, the numbered signs could be shaped differently or color-coded to better inform public safety officers as to the jurisdiction in which the emergency is located.

Location identification marker along the Clinton River Water Trail.

Ideas, like large rivers, never have just one source.

Willy Ley

The Chain of Lakes Water Trail in Bellaire.

CHAPTER 4
PROMOTING YOUR WATER TRAIL

Promoting your water trail is more than a good idea; it is essential to keeping the community invested and involved in the water trail and its future. This chapter contains several tools for promotion and education related to your water trail. Many of the ideas in this chapter can also be implemented during the trail planning process to help get people excited about the project!

EXPLORING NATURE, CULTURE AND HISTORY

The benefits of promoting your water trail might surprise you. Effective marketing can help bring in new tourists and economic benefits, but it can also help existing residents explore and better appreciate their waterways. In some cases residents feel unsure about whether a waterway can be safely accessed, so designating and publicizing your water trail can help your community explore its own backyard and help nearby residents feel connected to the water trail project. This local support can help sustain your water trail.

Overall, three major concepts are important to keep in mind when creating a promotional strategy for your water trail:

1. Create a strong, recognizable identity for your water trail, starting with a logo and brand that represents what makes your trail unique.
2. Communicate regularly and hold special events to celebrate your water trail.
3. Publish tools and resources to keep visitors well-informed and safe when using your water trail. Use your water trail as an opportunity to create more education around related issues such as invasive species, environmental protection, watershed quality, and outdoor recreation.

Huron River Water Trail, Huron River Watershed Council.

CREATING A STRONG IDENTITY

A brand identity can help paddlers quickly recognize your water trail, promote a positive image of your trail, and celebrate the things that make your paddling experience unique.

AN IDENTITY FOR YOUR WATER TRAIL

The purpose of marking your water trail is to persuade people that a trip to visit your water trail is worthwhile. A marketing campaign can help draw local residents, the larger region, and tourists to your water trail. Many strategies in this chapter are designed to help draw in visitors from beyond a local market, but the full potential of your water trail may not be reached without an engaged local population that knows what your water trail has to offer.

A brand includes a logo, a set of colors, and perhaps a slogan or other identifier that helps create a positive image of your water trail. However, it is important to remember that brand identity goes beyond logos. Brand identity speaks to the character of the paddling experience and the communities along the waterway. It speaks to the things that make your paddling experience different from any other (e.g., community heritage, culture, traditions, exceptional natural features, etc.). Brand identity is expressed in the words used frequently to describe the trail as well as in the logo, trail map and website. The more the brand can speak to the unique heritage of your community, the more likely it is to draw visitors and build community support and pride.

Launch/landing kiosk sign

Style Standards

TIPS FOR CREATING A VISUAL IDENTITY

- Creating a logo and brand can seem daunting, but involving your community can help give you clear direction. Start by asking community stakeholders, your water trail steering committee, and engaged members of the public to describe their favorite things about the water trail. Perhaps a particular curve of the river or scenic view stands out to them, or perhaps it's something unique about the history and culture of the river or the community. Such a simple idea can help create the basis for your brand.
- Keep it simple! A logo works best when it is easy to read and has only a few visual elements.
- Make sure that your logo and brand is easily transferable to posters, signs, maps, websites, t-shirts, and all forms of communication. To do so, it is important to create a logo that can be read easily when it is small, large, and in black-and-white.
- Color is a key consideration. Choose colors that grab attention. Though many water trail logos are of course blue, other examples (such as the Huron River Water Trail shown on this page) use a variety of colors equally well.

The Michigan Water Trails brand (below) is a good example of a simple but powerful visual identity. The Huron River Water Trail brand (right) is another example of a strong use of color and design that creates a lasting impression.

COMMUNICATE AND CELEBRATE

Communicating to the public with regular updates about your water trail is key to its continued success, while holding special events is a way to energize new and existing users of your water trail.

Local events are one opportunity to help spread the word about your water trail. Here, the Huron River Water Trail shares information at a conference.

COMMUNICATION STRATEGIES

The full potential of your water trail will not be realized unless the local and regional population base is aware of it and knows how to access it. Local water trail advocates need to make sure that local officials, the business community and residents are all aware of the trail and the paddling experiences it has to offer. There are a number of good tools for communication about your water trail, including:

- Creating and maintaining a project website;
- Attending local events to present about your water trail;
- Establishing a relationship with media outlets and press to help advertise major events and initiatives;
- Sending regular email updates to steering committee members, local businesses, environmental groups, and volunteers;
- Updating a social media account with user photos and stories about your water trail's success;
- Producing videos to post on websites and social media about your water trail;
- Holding special events to celebrate the unique characteristics of your water trail; and
- Publishing maps and guides to keep users informed and safe.

WEBSITE

Part of your communication strategy should include the development of a new website, or the addition of a special page on the website of the management entity or a community stakeholder. A website can include maps, links to pictures and videos, up-to-the-minute reports about water conditions and the weather, and a blog where paddlers can interact and share stories. At a minimum, all of the physical information related to the water trail should be placed on the Michigan Water Trails website at www.michiganwatertrails.org.

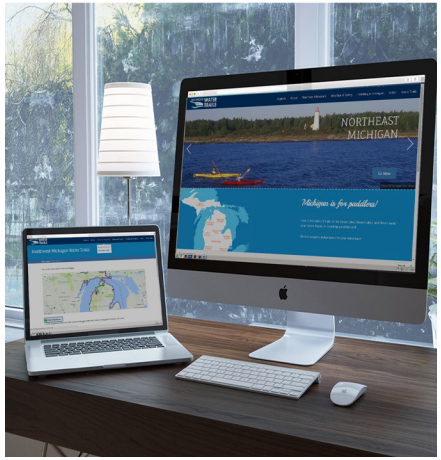
VIDEO

Another way to promote your water trail is by developing a short video. The video could provide an overview of the water trail (e.g., the location of access sites, what to expect, how to read the water trail signs), one or two highlights of the water trail, and tips for equipment and safety. Additional videos could highlight paddling events or seasonal topics (e.g., winter paddling).

LOCAL EVENTS

Of course, the most direct way to demonstrate the unique paddling experiences on your water trail is to host paddling trips. Paddling trips also provide an opportunity to highlight and learn about unique environmental assets along the waterway. In urban areas, paddling trips provide an opportunity to showcase a side of the community rarely seen, and highlight unique cultural and historical assets along the water trail. Paddling trips could be led by local environmental organizations, your local parks department, or other agencies/organizations that work on the waterway.

Special events might include paddling to restaurants or breweries, annual paddle events connecting various water trails, nature tours with expert guides, and athletic events such as races. If your event is on public land, check to see if you need to secure a special event permit from the managing jurisdiction.



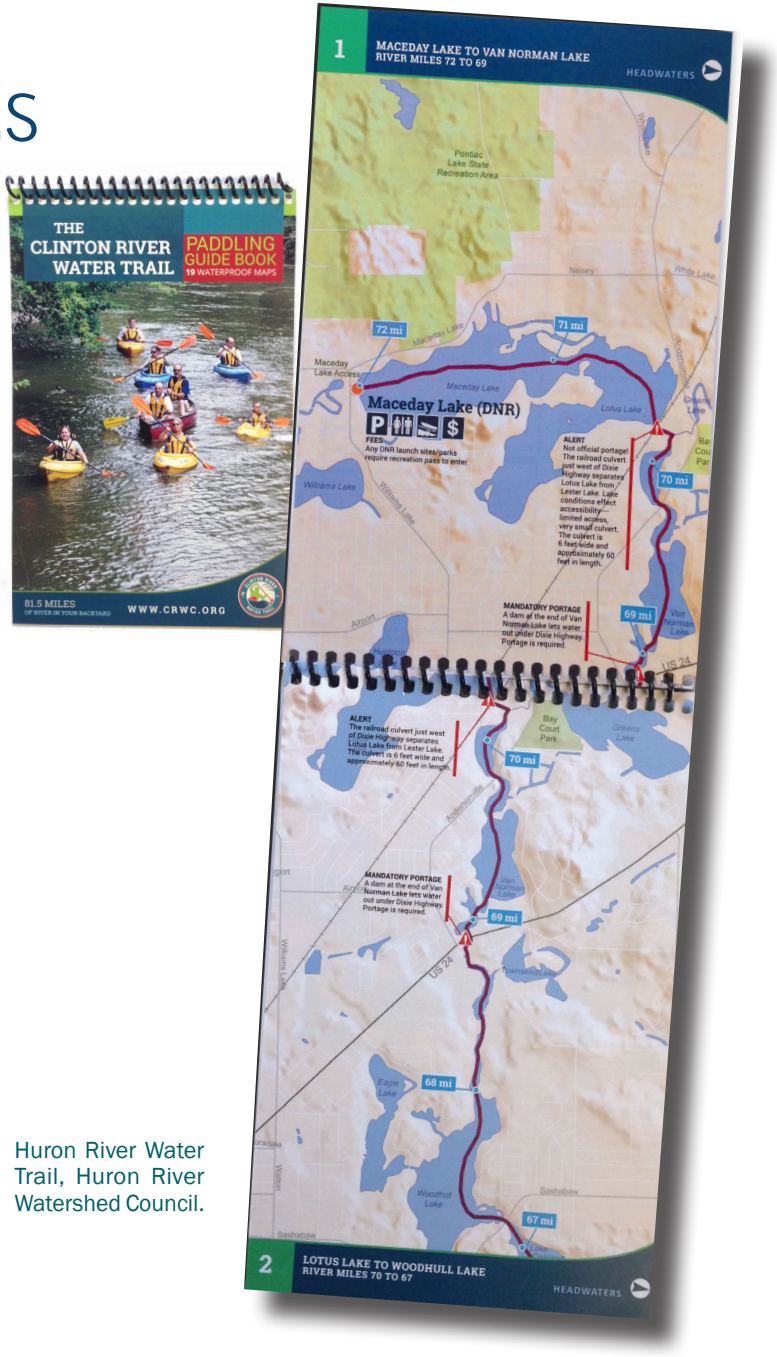
The Paddle and Pour Festival in Port Huron.

PUBLISHING TOOLS AND RESOURCES

TRAIL MAP AND GUIDEBOOK

A map, partnered with a formal paddling guide, can help paddlers better plan their trip prior to getting on the water. A map and paddling guide can also provide helpful navigational information for paddlers while they are on the water.

Paddling guides often include interpretive and historical information, safety tips, paddling etiquette, information on hazards and obstacles, suggested routes for different paddling skill levels, contact information for local outfitters, and descriptions of nearby towns and their amenities (e.g., places to eat, sleep and shop). Maps and guides should also identify access sites that have ADA-compliant amenities.



Guidebooks and maps help communicate information about planning a visit and staying safe on the water. The Clinton River Water Trail Paddling Guidebook and the Huron River Water Trail Paddler's Companion are two great examples of Michigan guidebooks.

Basic maps can be developed relatively easily using free online mapping applications, such as Google Earth and Google Maps. More sophisticated maps can be developed through digital mapping software packages (such as ArcGIS). If you choose to make your own map, the National Park Service maintains a list of commonly used icons and other mapping symbols on its website, accessible at www.nps.gov/hfc/carto/map-symbols.cfm.

Good water trail maps and guidebooks are developed using water-resistant paper and sized to fit into a small pocket or resealable plastic bag.

Huron River Water Trail, Huron River Watershed Council.

WATER TRAIL SAFETY CONSIDERATIONS

Paddler safety and education are very important issues to address when developing a water trail. In heavily trafficked areas (e.g., small lakes, the mouth of river channels), paddlers can be susceptible to accidental collisions with motor boats. Heavy boat traffic can also cause deep swells that can swamp unsuspecting paddlers and push their watercraft up against sea walls and other structures. Unpredictable weather conditions can rapidly cause very dangerous conditions along the Great Lakes and on flashy rivers. Woody debris and log jams can be especially unstable and risky, creating blockages and dangerous currents.

Safety and education should be seriously addressed during the master planning process. Ongoing conversations and partnerships with key stakeholders about how to promote safety and deliver education programs can help minimize the risk of serious injury or loss of life. For example, the Coast Guard Auxiliary offers a variety of educational materials and programs to help teach paddlers about safety and decision-making skills, such as the Operation Paddle Smart Program, Paddle Smart "If Found" ID Stickers for boats, and paddlecraft inspections. The Coast Guard offers the paddle stickers and paddlecraft inspections free of charge.

Other lifesaving tools, such as developing "float plans," should be promoted as standard practice. Programs like these are often accompanied by brochures and other forms of media which could easily be incorporated into sign kiosks and paddling guidebooks. Local liveries can also help to promote safe practices on the water body.

As noted earlier in this document, it will be important for the steering committee to work with local and state first responders and public safety departments (e.g., police department, fire department, marine patrol) during the development of the water trail master

plan and subsequent guides. First responders should be aware of the route of the water trail, the locations of access sites and hazards, and any trail markings that might affect their access and wayfinding along the water trail. Helping first responders identify the most proximate rescue partners for different stretches of the water trail will greatly aid in any rescue effort. Providing first responders with up-to-date maps and GIS coordinates is critical.

It will also be important to work with local management agencies, liveries and paddlers to help identify dangerous conditions, hazards and areas where paddling should be limited. Some water trail organizations are developing "ambassador programs" in which local volunteers monitor the river for safety, as well as opportunities for recreation and interpretation. Typically, the ambassadors would paddle sections of the river at least three times a year. Ambassadors would make general observations (and take photos as necessary) to document the conditions of the water trail, trash, signs, woody debris, water levels and potential hazards. All the information is then noted and cataloged with the management entity.

The Clinton River Watershed Council has placed interpretive, directional and safety location signs at key locations along the Clinton River Water Trail.

WOODY DEBRIS

The management of woody debris in a safe and sustainable manner is an important aspect of many water trails, particularly on rivers and streams. Although woody debris may be a nuisance for paddlers, it is important to remember that woody debris is an important component of a stream's anatomy. Woody debris in a waterway that is at least four inches wide and six feet long is considered Large Woody Debris (LWD). Collections of LWD are often referred to as logjams, snags or debris dams. In the past, LWD was removed from a waterway to enhance recreational access or to prevent flooding. However, LWD promotes stream health and erosion control, slows runoff, provides food and cover for aquatic creatures, and creates deep pools that provide shelter for a variety of fish.

In many instances, on a waterway used for paddling, woody debris can be managed using the "Clean and Open Method." The Clean and Open Method was developed by the DEQ and DNR to give specific guidance on how to manage woody debris and when a permit from the DEQ is needed. In general, if the proposed work only moves/removes tangled-up floating wood, cuts back wood that is secured to the banks or bottom of the river, keeps impact to the riverbank and river light, and does not secure anything to the bottom of the river, then it does not require a permit. However, if the proposed work significantly alters soil or water flow, impedes navigation, or secures structures to the banks or bottom of the river, it will require a permit.

A two-page summary of the Clean and Open Method can be found on the Huron River Watershed Council website at www.hrwc.org/wp-content/uploads/2013/03/Clean-and-Open-Method.pdf.

The Clean and Open Method of Woody Debris Management

1. PLAN – Address public health, legal access, safety concerns; define point of access to river; determine depth of water, flow and emergency plans.
2. CLEAN – Remove urban rubbish (man-made materials) and dispose properly.
3. OPEN – Move or cut loose floating debris to allow passage. Use a hand-saw or chainsaw to make the opening wide enough to allow flow through the logjam.
4. Place excess woody debris along steambanks and in the adjacent riparian corridor to create habitat.
5. Leave woody debris that is embedded in the stream's banks or bottom undisturbed.
6. Minimize the impact to the riparian corridor at the work site.

The river is constantly turning and bending and you never know where it's going to go and where you'll wind up. Following the bend in the river and staying on your own path means that you are on the right track.

Eartha Kitt

The Chain of Lakes Water Trail in Bellaire.

CHAPTER 5
FIGHTING INVASIVE SPECIES

As discussed throughout this manual, paddlesports are among the fastest-growing outdoor activities in the United States, and that enthusiasm is reflected in a rapidly developing system of water trails all over Michigan. However, along with fantastic recreational opportunities, the increased availability and use of water trails also brings challenges, including concerns over the possibility of these activities becoming a more prevalent vector for the introduction or spread of invasive species.

Many aquatic invasive species (AIS) are spread through movement of boats between impacted areas and non-impacted areas. Much has been done in Michigan to educate motorized boaters on how to prevent the spread of aquatic invasive species by properly cleaning, draining and drying motorized boats. However, less effort has been put into non-motorized boater education and outreach. A network of volunteer inspectors also exists for motorized boat launch locations throughout the state. While some paddlers may encounter these volunteer inspectors, these interactions are serendipitous.

Beginning in 2018, Michigan Sea Grant (MSG) and the nonprofit Land Information Access Association (LIAA) began working directly with local water trail organizations and water-based environmental organizations (e.g., watershed associations, land conservancies, conservation districts, Cooperative Invasive Species Management Areas, Cooperative Weed Management Areas, stewardship networks) to develop a volunteer paddler aquatic invasive species detection and reporting program. This efforts is known as the MI Paddle Stewards program. Funding for this statewide initiative was provided through the Michigan Invasive Species Grant Program (MISGP).

The overall goals of the MI Paddle Stewards project mirror two of the main program goals for the MISGP, namely the prevention of new introductions of native species through outreach and education; and increased monitoring and reporting for new and/or existing invasive species. There are four overall objectives for this project:

1. Prevent the introduction and/or slow the spread of invasive species from recreational paddling activities;
2. Increase public awareness of aquatic invasive species (including both current and Watch List species), their impacts on the ecosystem, and what individuals can do to prevent the spread of AIS;
3. Increase the use of the Michigan Invasive Species Information Network (MISIN) by paddlers; and
4. Create a volunteer steward corps of paddlers.

THIS CHAPTER SERVES TWO KEY PURPOSES:

1. To detail an approach for engaging residents and organizations on invasive species, and
2. To provide a "blueprint" for environmentally concerned individuals and groups to develop similar educational outreach in their communities.

In this way, recreationalists across the state have the opportunity and ability to lead in the fight against invasive species in Michigan's waters, thereby helping to protect a critical and beloved resource.

MI Paddle Stewards is a program of Michigan Sea Grant in partnership with MSU Extension, local trail groups and others. The program is funded in part through a grant from the Michigan Invasive Species Grant Program.

PADDLERS JOINING THE FIGHT AGAINST INVASIVE SPECIES

In addition to the recreational opportunities they offer, water trails can play an important role in facilitating local and regional efforts to prevent the spread of invasive species. The popularity of paddlesports in the Great Lakes State presents both opportunities and challenges to maintaining stable ecosystems. As many communities have learned, the popularity of recreational uses on waterways can pose a threat to water quality. Invasive species are just one potential threat.

An increase in the number of paddlers in a particular area means more watercraft are likely being transferred from one body of water to another. Before this trend presents itself and grows in a local context, it becomes increasingly important for managing organizations to develop and disseminate information around the invasive species threat. Such efforts are necessary to maintain these natural resources now and into the future.

While state and local governments and other organizations with an agenda to prevent the spread of invasive species are an important component to ongoing ecological management, paddlers can be important drivers in getting the word out to other members of the public.

THE INVASIVE SPECIES THREAT

One may ask, "Why do water trail users need to be so proactive in preventing the spread of invasive plants and animals?" To answer this question, it is important to understand that invasive species pose a serious ongoing threat to the environment, the economy, recreation, and human health and safety. These organisms outcompete native species by reproducing and spreading rapidly in areas where there are no natural predators. This often results in irreversible damage to the balance of the ecosystems where they are present.

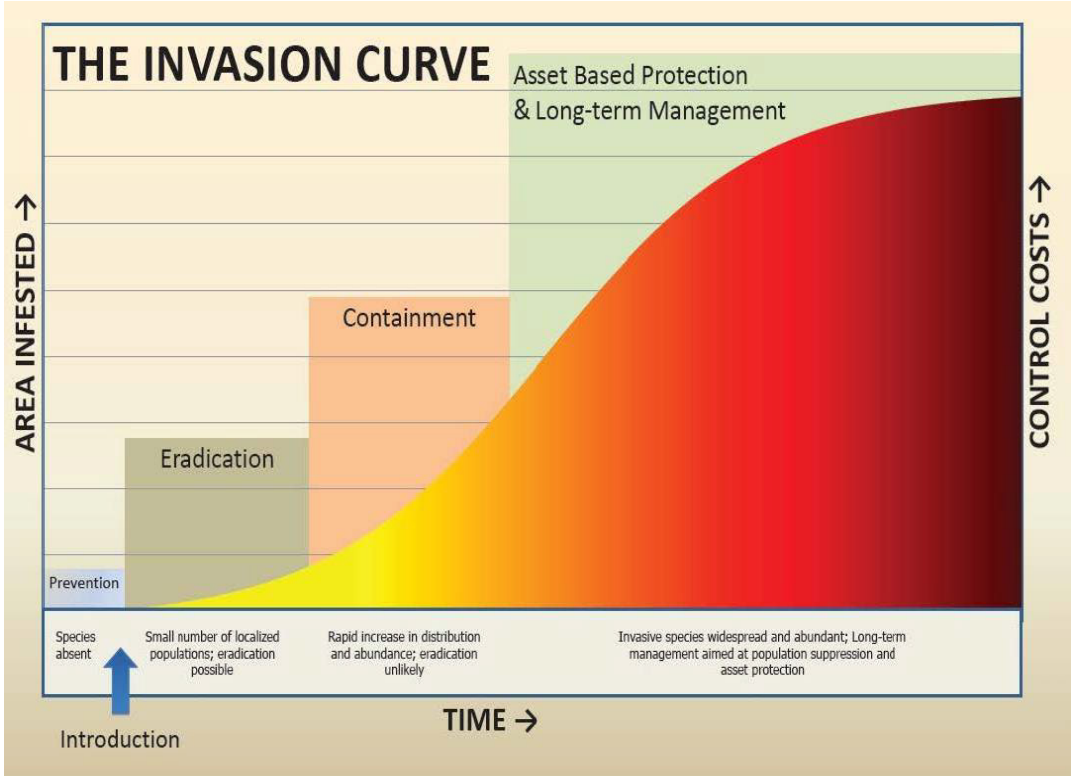
Left unchecked, invasive species can cause biodiversity loss, hindered economic development, increased vectors of disease, decreased aesthetic value from nature, and a total loss of recreational activities. All of these harmful impacts are reasons why federal, state and local entities have dedicated resources to managing invasive species throughout the Great Lakes Basin.

THE INVASION CURVE

The Invasion Curve depicts four stages in the management of invasive species. While all stages of the curve indicate a threat to the ecological stability of a place, paddlers can play their most effective role in protecting natural ecosystems by paying attention to species that are in the Prevention or Eradication stages of the Invasion Curve. These first two stages refer to periods when invasive species are absent altogether or when a small number of localized populations are present, but eradication is still possible. The more advanced stages of an invasive species' spread are managed through Containment and Long-Term Control. These stages are when there is a rapid increase in the distribution and abundance of the invasive plant or animal and complete eradication is unlikely. If more advanced, the management strategy becomes long-term control aimed at population suppression and resource protection.

The State of Michigan has developed an Aquatic Invasive Species (AIS) Watch List that paddlers can refer to in an effort to promote Prevention and Eradication. Plants and animals that appear on the AIS Watch List share the following characteristics:

- Pose an immediate or potential threat to Michigan's economic, environment or human health; and
- Have never been confirmed in the wild in Michigan or have limited known distribution in Michigan.



Source: USDA Forest Service 2005 Invasive Plant Environmental Impact Statement

The Midwest Invasive Species Information Network (MISIN) is a regional effort to develop and provide early detection and response resources for invasive species. This effort is being led by researchers with the Michigan State University Department of Entomology Laboratory for Applied Spatial Ecology and Technical Services in conjunction with a growing consortium of supporting partners. MISIN has developed a web and mobile application that community members can use to report invasive species that they identify in the places where they live or recreate.

App users on a mobile device can log species they find using the GPS feature. This allows the MISIN team to see photos, descriptions and locational data for all of the crowdsourced invasive species data in the region. This helps MISIN to be able to more comprehensively plan for and implement the most effective invasive species management practices across the region.

MIDWEST INVASIVE SPECIES INFORMATION NETWORK (MISIN)

Paddlers and other community members interested in promoting ecological sustainability can visit the website at michigan.gov/invasives and find "Michigan Watch List Aquatic Invasive Plants: A Guide for Identification." This guide provides detailed illustrations and descriptions of invasive plants such as Brazilian Elodea, European Frogbit and Eurasian Watermilfoil. Using data from the Midwest Invasive Species Information Network (MISIN) (online at misin.msu.edu), readers can learn species-specific information including:

- Where the plant or animal is native to;
- The date the species was introduced to the U.S.;
- The pathways that make the species a greater risk to spread (aquariums, boating, hunting, etc.);
- The legal status of certain invasive plants;
- The known locations of the species in the Midwest region; and
- The characteristics for identification.

The State of Michigan and MISIN maintain informational databases for the region's Watch List plants and animals. Paddlers on Michigan's water trails can use these resources to have a stronger background on which species to look out for, as well as how to distinguish between an invasive species and a native look-alike. By increasing the number of paddlers watching out for and reporting the existence of invasive species across the Great Lakes State, researchers, policymakers and local units of government can work proactively and in a coordinated effort to protect the integrity of one of our state's greatest resources. Remember, neither the state nor the local units of government can be everywhere at once. They need the help of paddle enthusiasts.

HOW TO REPORT USING THE MISIN APP

The MISIN smartphone app (www.misin.msu.edu/apps, available on Google Play and the App Store for free) provides a mobile solution for the capture of invasive species field observation data. Paddlers can play an important role in the early detection and rapid response to new invasive threats in their area by contributing invasive species observations to the MISIN database. Through the app, paddlers can:

- Identify and report 400+ invasive plant and animal species.
- Capture and submit species observations from the field.
- Include images taken in the field with your observation.
- Browse images and species information on the top Midwest invaders.

SOME MICHIGAN INVASIVE SPECIES

WHAT ARE INVASIVE SPECIES?

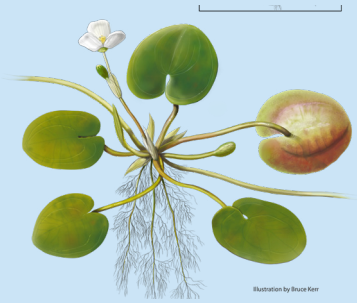
Plants, animals and other organisms, such as microbes, that are non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

-Executive Order 13112 (section 1)

EUROPEAN FROGBIT

(Hydrocharis morsus-ranae)

European frogbit has kidney-shaped to heart-shaped leaves and a single white flower with three round petals and a yellow center. This plant can be found free-floating or rooted in shallow water. Its habitat includes slow-moving rivers, sheltered inlets, ponds and ditches.



PHRAGMITES

(Common Reed) (Phragmites australis)

Invasive phragmites (also known as common reed) is a warm-season perennial grass with a rigid hollow stem and leaves that are flat, smooth, and green to grayish-green. The flowers grow as dense branched clusters on the end of each stem that are open and feathery at maturity. The plant ranges in height from 6-13 feet.

PURPLE LOOSESTRIFE

(Lythrum salicaria)

Purple loosestrife is a perennial herb with a woody square stem covered in downy hair. It varies in height from 4-10 feet. It has leaves that are arranged in pairs or whorls, and magenta flower spikes with 5-7 petals per flower that are present for most of the summer.

EURASIAN WATERMILFOIL

(Myriophyllum spicatum)

Eurasian watermilfoil is an aquatic plant with stems that are whitish-pink to reddish-brown. Its leaves are grayish-green with finely divided pairs of leaflets that are 1/2-2 inches long, giving the plant a feathery appearance. The leaves are arranged in whorls of 3-6. Flowers are yellow or reddish with 4 parts on a projected spike sitting 2-4 inches above the water.

FLOWERING RUSH

(Butomus umbellatus)

Flowering rush is a perennial, aquatic herbaceous plant that typically grows in shallow sections of slow-moving streams or rivers, lake shores, irrigation ditches and wetlands. Its narrow leaves are triangular in cross section and twist toward the tip. Flowers grow in round umbrella-like clusters of 20-50, with 6 light pink to rose-colored petals and 9 stamens per flower.

ASIAN CARP

(Various species)

Invasive carp are well-suited to the climate of the Great Lakes, making them a significant threat to the region's natural ecosystems and recreational activities. Bighead, silver and black carp are spreading throughout streams, rivers and lakes in the Mississippi River and Midwest region and are approaching Chicago. Grass carp have already arrived and can be found in low numbers in all the Great Lakes except Lake Superior.

Michigan CLEAN BOATS CLEAN WATERS

THE THREE MAIN GOALS OF THE CLEAN BOATS, CLEAN WATERS PROGRAM

1. Changing boater behavior to clean their boating equipment after each use.
2. Increasing aquatic invasive species knowledge.
3. Promoting action to share what they learned.

For more information on Michigan's Clean Boats, Clean Waters program visit micbcw.org

PREVENTING THE SPREAD OF INVASIVE SPECIES

Michigan is well known for its culture of recreational boating. Aside from featuring 3,300 miles of Great Lakes shoreline, the state has over 26,000 lakes at least an acre in size, in addition to its many rivers and streams. Across Michigan, boaters have access to over 1,300 public boating access sites and 80 public harbors and marinas. There are more than one million registered boats in Michigan, not to mention the thousands of unregistered paddlecraft, private launches and marinas, and out-of-state visitors to the Great Lakes State who use its waters for various recreational activities. All of this activity, and its inclination for spreading invasives, has prompted the state legislature to act. This section discusses the requirements all watercraft users must follow to protect our waters and how the Michigan Clean Boats, Clean Waters program and its volunteers are helping.

REGULATING THE TRANSFER OF INVASIVES

According to the State of Michigan, as found on the Michigan Invasive Species webpage:

> *Michigan's Natural Resources and Environmental Protection Act (Act 451 of 1994) Part 413 has been amended with changes for boaters and anglers that are in effect as of March 21, 2019. The changes are intended to strengthen protection for Michigan waterways against the introduction and spread of aquatic invasive species. Prior to the amendment, the law only required that a person not place watercraft or trailers in the waters of Michigan if an aquatic plant is attached. In addition to this requirement, the new changes require all of the following prior to transporting any watercraft over land:*
>
> - Removing all drain plugs from bilges, ballast tanks, and live wells.
> - Draining all water from any live wells and bilges.
> - Ensuring that the watercraft, trailer, and any conveyance used to transport the watercraft or trailer are free of aquatic organisms, including plants.
>
> *This means that after trailering boats, and before getting on the road, boaters must pull plugs, drain water and remove plants and debris.*
>
> *Violation of the law is a state civil infraction and violators may be subject to fines up to $100.*

In other words, preventing the spread of invasives is not only advisable, but is now legally enforced. While an important first step, the State of Michigan cannot possibly monitor all watercraft or all bodies of water to ensure compliance. It is ultimately up to watercraft owners themselves, volunteer organizations and local initiatives to help increase awareness and protect our recreational resources.

MICHIGAN CLEAN BOATS, CLEAN WATERS

The Michigan Clean Boats, Clean Waters (MICBCW) program is an ongoing effort to prevent the spread of invasive species in Michigan through boater education and awareness. The program aims to reduce the risk of infestation in lakes and rivers without invasive species; decrease the risk of new invasive species in an already infested water body; and to prevent the export of species to other water bodies.

Along with the help of volunteer organizations and related education initiatives, this program is especially important at a time when the spread of invasive species has accelerated. The State of Michigan, including the Department of Natural Resources (DNR) and the Department of Environment, Great Lakes and Energy (EGLE), simply do not have enough staff or resources to reach all 26,000 lakes and rivers that are frequented by boaters. Instead, this effort must be joined by volunteers and informed boaters.

CLEANING WATERCRAFT

The MICBCW program recommends the following steps to reduce the chance that an invasive species is transferred from one ecosystem to another, remembered by a simple phrase: Clean, Drain, Dry and Dispose.

- Inspect and remove any visible mud, plants, fish or animals before transporting equipment.
- Drain water from equipment before transporting.
- Dispose of unwanted bait in the trash, not in the water.
- Spray, rinse or dry equipment to remove or kill invasive species.

A simple cleaning solution made with bleach or vinegar diluted in water is a big aid in preventing the spread of invasives. A sample recipe follows, and videos and other tips for cleaning your paddling gear can be found online at michiganwatertrails.org and at michiganseagrant.org/educational-programs/mi-paddle-stewards.

INGREDIENTS FOR A BOAT WASH SOLUTION

Vinegar can be a substitute for bleach

- For 5.25% bleach: Add 5 mL (about 1 teaspoon) of bleach into a 16 oz spray bottle. Fill the bottle with tap water and shake to mix.
- For 8.25% bleach: Add 3 mL (just over 1/2 teaspoon) of bleach into a 16 oz spray bottle. Fill the bottle with tap water and shake to mix.

Use the solution to spray paddling equipment that directly contacts plants, mud, and river water (kayak, paddles, etc.). **Do this away from the waterbody so water and runoff can be absorbed into the ground rather than enter the waterbody.**

When handling bleach or vinegar, it is important to take appropriate safety precautions to prevent harm to your skin, eyes, and clothes.

Undiluted chlorine bleach degrades in about one year; write the expiration date on the container for reference. Diluted chlorine bleach solution degrades after 24 hours, so mix up a fresh batch of solution for each day's use.

MI Paddle Stewards is a program of Michigan Sea Grant in partnership with MSU Extension, local trail groups and others. The program is funded in part through a grant from the EGLE Michigan Invasive Species Grant Program. Visit michiganseagrant.org/educational-programs/mi-paddle-stewards for more information.

MI PADDLE STEWARDS
RESTORE OUR WATERS

STEWARDSHIP FOR GENERATIONS TO COME

Many paddlers throughout Michigan may be thinking, "I understand the invasive species threat, but how can I help spread the word to others in my community?" The MI Paddle Stewards program was developed by Michigan Sea Grant to help answer this question by hosting workshops and paddles across the state with paddling groups, public officials and residents. These workshops consisted of a morning session to discuss:

- an overview of invasive species, including how to identify many of the plants and animals listed on the state's Watch List;
- the Clean Boats, Clean Waters program and what boaters should do to deter the transfer of species from one body of water to another;
- how establishing a water trail opens up opportunities for educational programming around invasives; and
- the MISIN smartphone app, which paddlers and volunteer groups can use to report invasives that they encounter while recreating.

Following the morning session and a provided lunch, the groups set out on a paddle to look for invasive species along a local water trail. Guided by experts in aquatic invasive species identification, participants got a hands-on demonstration of how to use the MISIN reporting application in a real-world scenario. Participants often encountered examples of native look-alikes and learned how to distinguish these from species that pose a real threat to the ecosystem.

To finish the afternoon session, the team exhibited how to properly clean paddlecraft to prevent the potential spread of an invasive species from one body of water to another. Paddling groups around Michigan are encouraged to regularly host their own workshops to get the word out to more water trail users. The next section will describe some considerations for local leaders and organizations wanting to host a workshop on their nearby water trail.

Michigan Sea Grant is a cooperative program of the University of Michigan, Michigan State University and the National Oceanic and Atmospheric Administration. The program funds research, education and outreach projects designed to foster science-based decisions about the use and conservation of Great Lakes resources.

For more information visit michiganseagrant.org.

The MI Paddle Stewards program also created an online course targeted to local leaders. To access the online course, visit michiganseagrant.org/educational-programs/mi-paddle-stewards.

Community groups a workshop planner would want to contact to encourage local attendance include:

- Paddling groups
- Nature conservancies
- Residents who live near the water trail
- Local officials from municipalities along the water trail
- Lake and river associations
- Local Cooperative Invasive Species Management Areas (CISMAs)
- Watershed councils

HOSTING A WORKSHOP IN YOUR COMMUNITY

Paddlers around the state are encouraged to host paddling workshops similar to those presented by Michigan Sea Grant. This is a great way to share information with your water trail's champions, who can in turn spread these best practices to other paddlers and the public. To ensure that you plan a successful workshop, here are some techniques for getting the word out to paddlers and other interested participants, finding a suitable location and outfitter, securing a variety of experts to present information, and making sure that you have meeting materials that make the paddle engaging, educational and enjoyable.

STEP 1: ENGAGE YOUR PRIMARY PARTICIPANTS

The first step in developing a workshop that will ultimately benefit the ecological stability of your community's recreational waterways is to invite a robust and diverse group of paddlers to take part. Therefore, the first questions to ask are, who uses the water trail, and who has a shared agenda in keeping the water free of invasive species?

Reach out to these stakeholders and explain the purpose of the workshop to assess their interest in participating as attendees, or potentially as speakers. These groups are likely the local champions for increasing awareness around water quality protection and can be essential to spreading the word about the workshop later on.

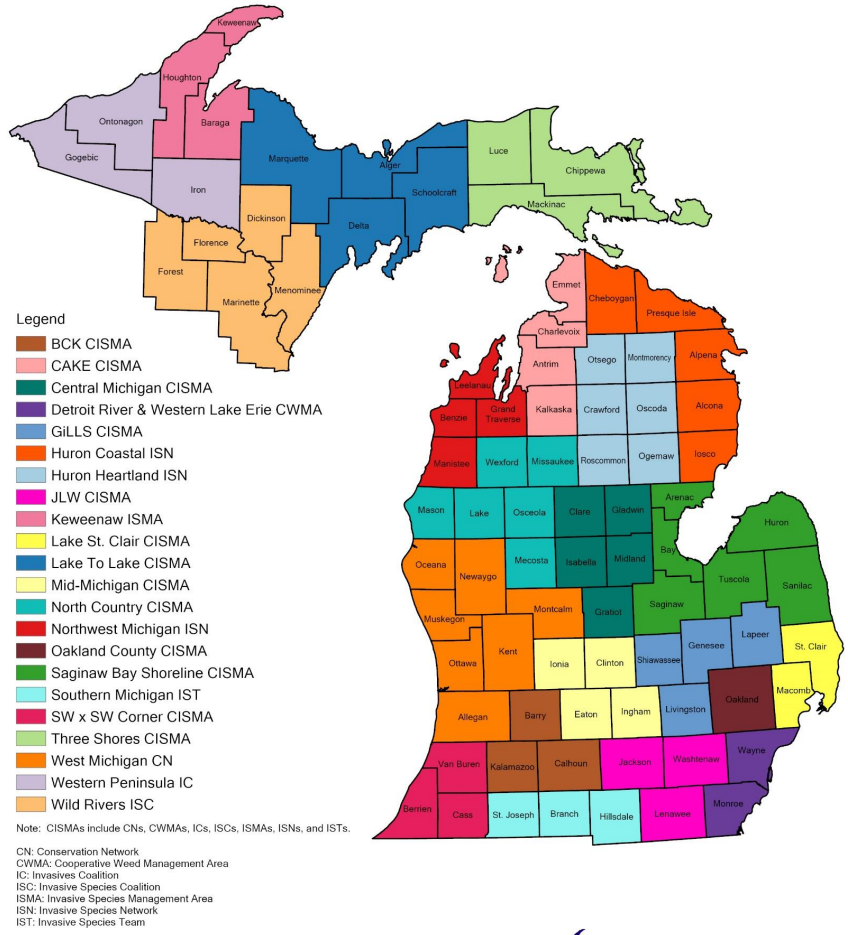
STEP 2: FUNDING THE WORKSHOP

Workshop planners may be dissuaded by the cost to host a local paddle workshop. This highlights the importance of engaging interested organizations early in the planning process. Recreation and environmental groups across the state will often hold a similar interest in combating invasive species and may provide insights on how to fund your workshop. Strategies to pay for a local event may include one or more of the following:

- Participant fee
- Sponsorship
- Donations
- Assistance from municipal entities

A typical budget for workshops hosted in 2018 and 2019 included $10 per person for food and an average of $35 per kayak rental. Other expenses may include facility rental, printing charges and travel for speakers.

MICHIGAN COOPERATIVE INVASIVE SPECIES MANAGEMENT AREAS



Web: www.michiganinvasives.org
Email: info@michiganinvasives.org

MInvasives
Michigan Invasive Species Coalition

STEP 3: IDENTIFY POSSIBLE LOCATIONS

The next step is to identify potential locations to host your workshop. The suitability of one site to the next may change depending on how many people RSVP to the event, so it is ideal to find a site that can host between 20 to 50 people to allow for flexibility.

Here are some factors to consider when you're deciding on a location to host your invasive species paddle workshop:

- Choose a classroom that is a 10-minute or shorter drive from the water trail launch site that you intend to use. This will help encourage participants to take part in the entire workshop, including the paddle.
- Make sure the site has enough seating and tables for all of your participants.
- When possible, choose venues and launch sites with accessibility features to accommodate all potential participants, regardless of physical ability.
- Ensure the site allows food.
- Check if the venue has Internet access (optional).
- Work with the venue to reserve the site as early as possible and communicate with the venue's staff to ensure all of your meeting needs are met (seating arrangement, projection capabilities, the space's limitations, etc.)

A typical workshop will consist of two hours in the classroom and two hours on the paddle. Because of this time commitment, it is wise to provide smaller snacks, coffee and water at the beginning of the morning session. When possible, a lunch should be provided to participants.

In addition to identifying locations for the event, you will also need to find a local outfitter who can provide the kayaks for the paddle. A simple web search can help to find which outfitter services your water trail. Be sure to get confirmation for the entire time you will need the boats and the outfitter onsite (2.5 to 3 hours). Alternatively, you may allow participants to bring their own boats. Rely on the advice of the outfitter regarding inclement weather.

In addition to providing safety equipment and training for the workshop participants, outfitters also benefit from learning about the invasive species threat and the importance of reporting occurrences using the MISIN app.

STEP 4: INVITE GUEST SPEAKERS

Guest speakers who are experts in ecology, biology, botany or who work regularly on invasive species mitigation act as great resources for participants. Speakers at different workshops across Michigan may vary depending on local interest in a given topic area, as well as the speaker's availability to attend the workshop. The following may be the first places you try to identify speakers for the workshop:

- Regional CISMA Coordinator
- Expert from a local or regional higher education institution
- Staff from a local nature preserve or conservation program
- Watershed Council representative

The MI Paddle Stewards workshops used the following agenda of speakers, which may be useful to consider when planning your presentation:

- Michigan Sea Grant – 'Housekeeping'; Overview of invasive species; Description of the program's purpose
- EGLE, CISMA coordinator or a local conservation contact – Presentation on Michigan's Watch List species including how to identify and report online
- MSU Extension – Clean Boats, Clean Waters program and how to organize volunteers
- LIAA – Water trails in Michigan and the michiganwatertrails.org website
- Michigan Sea Grant, EGLE, CISMA coordinator – How to use the MISIN app for reporting invasive species

STEP 5: GET THE WORD OUT

Once you have reached out to guest speakers and key stakeholders on the water trail, secured a location to host the workshop and confirmed the outfitter's availability, it is now time to get the word out to the public. There are various options for doing so, including an online and print flyer, social media, posting on an organizational website, and creating a press release.

Whatever methods you use to disseminate information, it is important to keep a few things in mind. First, develop a clear and concise message on the purpose of the workshop and where participants can register. Let everyone know, as briefly as possible, why invasive species control is important and what participants can expect to learn by taking part in an informative paddle. Be sure to include the time and location, the materials people should bring, and who to contact for any questions the public might have. It is important that people have a clear idea of what steps they have to take in order to participate and what to expect onsite. A sample workshop flier is provided at the end of this chapter.

A registration process is necessary in order to know how many meals, kayaks and meeting materials are needed, as well as what type of venue is best suited to host the workshop. If you do not have the ability to create an online reservation system, have potential participants contact you with their pertinent details. Registration information should include email addresses so that you can contact people if event needs to be canceled or changed.

STEP 6: PREPARE YOUR MATERIALS

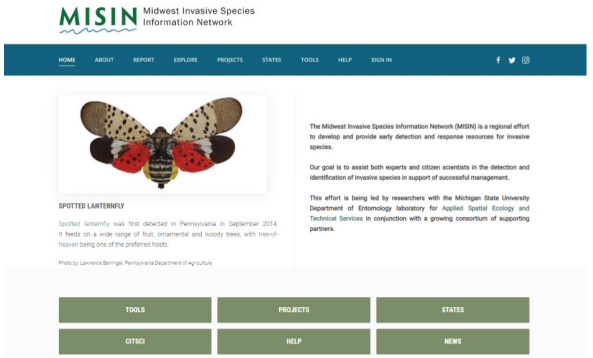
These are materials and considerations that you should encourage participants to bring to the paddle workshop. These may include:

- A reusable water bottle
- Sunscreen
- Dress for the weather
  - Layers for weather changes
  - Sunglasses and hat
  - Water shoes
- Cell phone, tablet or other electronic device with MISIN app downloaded

Encourage participants to download the MISIN app before the meeting so that they do not have to worry about Internet availability, which may not exist in certain locations, and can use the app during the paddle.

The following are materials and supplies that the workshop leader should prepare for the meeting:

- Pre-printed participant nametags
- Projector and projection screen
- Meal for each participant (registration should allow participant to specify vegetarian option or any allergies)
- Photo release waiver form
- Participation waiver form (sample attached) (to release organizing entity from liability in the event of an accident on the water; this MUST be signed by the participant before they can paddle with the workshop; many outfitters can supply a waiver)
- Event insurance rider (optional)
- Pre- and post-workshop questionnaire (samples attached)
  - For each workshop that you organize, whether you're planning to host just once or one time each year, it is useful to see what participants know before and after the event takes place. During the MI Paddle Stewards workshops, participants were asked what they knew about invasive species, specific programs and resources from around the state and best practices for managing invasives in their role as paddlers on Michigan's water trails.
- If you can swing it, a goody bag (e.g., a dry bag, whistle, waterproof key holder, spray bottle for boat cleaning, information booklets, etc.).



HELPFUL CONTACTS

Michigan Clean Boats, Clean Waters

Michigan Lakes and Stream Associations, Inc.

Michigan State University Extension

Michigan Department of Environment, Great Lakes & Energy

Michigan Sea Grant

SAMPLE LIABILITY WAIVER

Third Coast Surf Shop, Inc. - RELEASE FROM LIABILITY

IN CONSIDERATION OF THE RENTAL OR FURNISHING OF SURFING EQUIPMENT, BIKES, SKIMBOARDS, BOOGIEBOARDS, SANDBOARDS, WETSUITS , KAYAKS, STAND UP PADDLEBOARDS, SKATEBOARDS, OR ACCESSORIES OR THE RECEIPT OF LESSONS OR PARTICIPATION IN RELATED DAY CAMPS/CONTESTS/RENTALS/ACTIVITIES: I hereby certify that I am at least eighteen (18) years of age; that I am physically fit and have not been otherwise informed by a physician; that I know how to swim; and that I am not under the influence of any alcohol or drugs. I further certify that the above stated activities, and associated activities, may be dangerous and involve certain risks, including injury and death, and I agree to assume those risks. I hereby waive and **RELEASE** all claims and liability, both present and future, against Ryan Gerard, "Third Coast Surf Shop, Inc.," and it's owners and employees, including personal injuries or death suffered and medical expenses incurred by me, arising out of or any way connected with any equipment rented to or used by me, any lessons given to me, or in the participation of related contests/activities. I understand that I have no right to file any lawsuit or make any other claim. This includes all claims based on the negligence, responsibility or fault of Ryan Gerard, "Third Coast Surf Shop, Inc.," and its owners and employees.

TERMS AND CONDITION: SSECTION ONE: INDEMNITY: Lessee shall indemnify lessor against, and hold lessor harmless from, any and all claims, actions, suits, proceedings, costs, expenses, damages, and liabilities, including reasonable attorney fees arising out of, connected with, or resulting from the property subject to this lease, including, but not limited to the manufacture, selection, delivery, use, operation, or return of such property. SECTION TWO: LOSS OR DAMAGE: A)Lessee assumes and shall bear the entire risk of loss, theft, destruction, or damage of or to any part of the equipment ("loss or damage") from any cause whatsoever, whether or not covered by insurance, and no such loss shall release lessee of its obligation under this agreement in the event of loss or damage. Lessee, at the sole option of lessor, shall (a) at lessee's expense, repair the equipment to the satisfaction of lessor; or (b) at lessee's expense, and to the satisfaction of lessor, replace the equipment with similar or like equipment in good condition and repair and of comparable value, with clear title thereto in lessor. On lessor's receipt of the payment specified by subsections (1) and (2) above, lessee shall be entitled to whatever interest lessor may have in such equipment, as is, where is, without warranty express or implied. SECTION THREE: ASSIGNABILITY: Without lessor's prior written consent, lessee shall not (a) assign, transfer, pledge, or otherwise dispose of this lease, the equipment, or any interest therein or (b) sublet or lend the equipment or permit it to be used by anyone other than lessee or lessee's employees. SECTION FOUR: MAINTENANCE: Lessee, at lessee's expense, shall maintain the equipment in good repair, condition, and functional order, shall not use the equipment unlawfully, and shall not alter the equipment without lessor's prior written consent. Lessor shall not be liable for loss of profit or other consequential damages resulting from the theft, destruction, or disrepair of the equipment, and there shall be no abatement of lease payments on account of any such theft, destruction, or disrepair. SECTION FIVE: TITLE; PERSONAL PROPERTY: The equipment is, and shall at all times remain, property of lessor, and lessee shall have no right, title, or interest except as expressly set forth in this lease. The equipment is and shall at all times be and remain personal property although the equipment or any part of it may now be or hereafter become in any manner affixed or attached to real property or any improvements.

I HAVE READ THIS AGREEMENT AND UNDERSTAND IT.

NAME:_____SIGNATURE:_____

I hereby certify that if I am signing on behalf of a person under the age of eighteen (18) years, that person is my child and I am his or her natural guardian and legal custodian; that I am waiving and RELEASING all claims and liability, including personal injuries or death suffered by my child and all medical expenses incurred by me on account of my child; and that all statements made in this Release are true and apply to my child, except that I am at least eighteen (18) years of age.

NAME OF CHILD:_____AGE:_____DATE:_____

Third Coast Surf Shop, Inc. - RELEASE FROM LIABILITY

IN CONSIDERATION OF THE RENTAL OR FURNISHING OF SURFING EQUIPMENT, BIKES, SKIMBOARDS, BOOGIEBOARDS, SANDBOARDS, WETSUITS , KAYAKS, STAND UP PADDLEBOARDS, SKATEBOARDS, OR ACCESSORIES OR THE RECEIPT OF LESSONS OR PARTICIPATION IN RELATED DAY CAMPS/CONTESTS/RENTALS/ACTIVITIES: I hereby certify that I am at least eighteen (18) years of age; that I am physically fit and have not been otherwise informed by a physician; that I know how to swim; and that I am not under the influence of any alcohol or drugs. I further certify that the above stated activities, and associated activities, may be dangerous and involve certain risks, including injury and death, and I agree to assume those risks. I hereby waive and **RELEASE** all claims and liability, both present and future, against Ryan Gerard, "Third Coast Surf Shop, Inc.," and it's owners and employees, including personal injuries or death suffered and medical expenses incurred by me, arising out of or any way connected with any equipment rented to or used by me, any lessons given to me, or in the participation of related contests/activities. I understand that I have no right to file any lawsuit or make any other claim. This includes all claims based on the negligence, responsibility or fault of Ryan Gerard, "Third Coast Surf Shop, Inc.," and its owners and employees.

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I HAVE READ THIS AGREEMENT AND UNDERSTAND IT.

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NAME OF CHILD:_____AGE:_____DATE:_____

SAMPLE FLYER

Do you love to paddle and want to keep your favorite waterways healthy and clean?
You can help at this workshop and paddle:

MENOMINEE, LAKE MICHIGAN WATER TRAIL

July 19, 2019, 9:00 am – 5:00 pm

Spies Public Library
940 1st Street
Menominee, MI 49558

Become an ally in the fight against aquatic invasive species! Paddlers 18 years and older are invited to join Michigan Sea Grant and partners for a one-day volunteer program about protecting water trails from aquatic invasive species (AIS). You will learn how to detect and report aquatic invasive species spotted while paddling a water trail, and how to clean your crafts to avoid giving invaders a free ride. As a new paddle steward, you'll be encouraged to pass your knowledge to other paddlers and seek out other volunteer opportunities to help keep Michigan's water trails clean and healthy.

This workshop includes lunch and a paddling experience (a limited number of kayaks and gear provided by Michigan Sea Grant or bring your own) on a nearby water trail! Participation is free thanks to funding from the Michigan Invasive Species Grant Program (www.michigan.gov/invasives). Find more detailed information about the workshop on the event's registration page.

REGISTRATION:
events.anr.msu.edu/MIPaddleStewardsMenominee07192019

SAMPLE AGENDA

MI PADDLE STEWARDS
RESTORE OUR WATERS

Cheboygan, MI
July 26, 2019
9:30 a.m.- 3:30 p.m.

Agenda

9:30 a.m.	Registration and Pre-Training Survey – MI Sea Grant Coffee, bagels, muffins, etc.
9:45 a.m.	Welcome & Introductions – Shelby Bauer, *Huron Pines*
10:00 a.m.	Presentation: Invasive Species, why this program is important, volunteer expectations – Mary Bohling, *MI Sea Grant Educator*
10:15 a.m.	Presentation: Michigan's Watch List Species (with an emphasis on species of greatest risk locally) – Shelby Bauer, *Huron Pines*
11:00 a.m.	Break
11:15 a.m.	Presentation: Clean Boats, Clean Waters – Beth Clawson, *MSU Extension Educator*
11:35 a.m.	Presentation: Michigan's Water Trail Manual – Mary Bohling, *MI Sea Grant Educator*
11:45 a.m.	Presentation: MISIN: What is it? How to use it (Finding and entering data)? What happens after entry? – Shelby Bauer, *Huron Pines*
12:15 p.m.	Presentation: Local Resources: CISMAs, Water Trail Managers, RC&Ds, Tribes- Shelby Bauer, *Huron Pines*
12:30 p.m.	Tool Kits – Mary Bohling, *MI Sea Grant Educator*
12:40 p.m.	Lunch (fill your water bottles for paddle)
1:30 p.m.	Boat Safety – Great Turtle Kayaks
1:45 p.m.	Paddle; Invasive Species search with MISIN app Bring your water bottles, sunscreen, bug spray, etc.
3:15 p.m.	Boat Cleaning Demo – Beth Clawson, *MSU Extension Educator*
3:30 p.m.	Post-training Survey and Distribution of Certificates – Michigan Sea Grant

PRE-WORKSHOP EVALUATION

Sea Grant Michigan | MICHIGAN STATE UNIVERSITY Extension

MI Paddle Stewards Workshop
Pre Workshop Evaluation

Date of Workshop: _____ ***Location of Workshop:*** _____

Please answer the following questions to help us understand your knowledge before participating in the MI Paddle Stewards workshop.

1. Invasive species are defined as:
    a. Plants, animals and other organisms that are not native in an area
    b. Plants, animals and other organisms that are doing or have the potential to do harm in an area
    c. Plants, animals and other organisms that are not native and are doing or have the potential to do harm in an area
    d. None of the above
    e. I don't know
2. People should care about invasive species because:
    a. They out-compete native species by reproducing and spreading rapidly in areas where there are no natural predators and change the balance of the ecosystems
    b. They are doing damage to (or have the potential to damage) Michigan's economy, environment or human health
    c. All of the above
    d. None of the above
    e. I don't know
3. The Michigan Watch List is:
    a. A list of species that have been identified as posing an immediate or potential threat to Michigan's economy, environment, or human health
    b. A list of species that have either never been confirmed in the wild in Michigan, or have a limited known distribution
    c. All of the above
    d. None of the above
    e. I don't know
4. The following species are currently included on the Michigan Watch List:
    a. Starry Stonewort, Phragmites, Red Swamp Crayfish
    b. Water Chestnut, Hydrilla and New Zealand Mud Snails
    c. Purple Loosestrife, Silver Carp and Hydrilla
    d. None of the above
    e. I don't know
5. MISIN is an abbreviation for:
    a. Midwest Invasive Species Information Network
    b. Michigan Invasive Species Important News
    c. Michigan Infestation of Species that Invade Natives
    d. None of the above
    e. I don't know
6. Prior to reporting a species in the MISIN database I should:
    a. Check to see if it has already been reported in my area
    b. Personally identify the invasive species
    c. All of the above
    d. None of the above
    e. I don't know

POST-WORKSHOP EVALUATION

Sea Grant Michigan | MICHIGAN STATE UNIVERSITY Extension

MI Paddle Stewards Workshop
Post Workshop Evaluation

Date of Workshop: _____ ***Location of Workshop:*** _____

Please answer the following questions to help us understand your knowledge after participating in the MI Paddle Stewards workshop.

1. Invasive species are defined as:
    a. Plants, animals and other organisms that are not native in an area
    b. Plants, animals and other organisms that are doing or have the potential to do harm in an area
    c. Plants, animals and other organisms that are not native and are doing or have the potential to do harm in an area
    d. None of the above
    e. I don't know
2. People should care about invasive species because:
    a. They out-compete native species by reproducing and spreading rapidly in areas where there are no natural predators and change the balance of the ecosystems
    b. They are doing damage to (or have the potential to damage) Michigan's economy, environment or human health
    c. All of the above
    d. None of the above
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    a. Check to see if it has already been reported in my area
    b. Personally identify the invasive species
    c. All of the above
    d. None of the above
    e. I don't know

SAMPLE EMAIL NOTICE

Hello Paddle Enthusiasts!

We are very excited our MI Paddle Stewards program is just a week away in Menominee, MI. We will be starting our day at Spies Public Library, 940 1st Street, Menominee, MI 49558 at 9 a.m. After the class room portion of our day and a nice lunch we will head out for our paddle (weather permitting)!

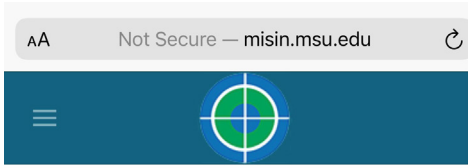
As part of the training you will learn how to use the MISIN: Report Invasive Species app in the fight against invasive species. Please download the app on your cell phone, tablet or other electronic device before coming to the workshop.

- Don't forget to bring:
- A reusable water bottle (so we can eliminate plastic waste for our workshop)
- Sunscreen
- Dress for the weather
- Layers! We will be indoors in the morning
- Sunglasses and hat
- Water shoes
- Cell phone, tablet or other electronic device with MISIN app downloaded (Internet may not be available at all workshop locations)

We look forward to seeing you all there and having an adventurous day!

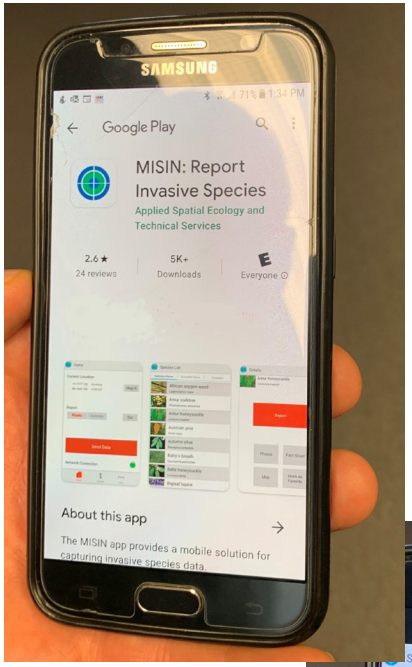
If you need to reach us the morning of the event, please call Mary at 313-410-9431

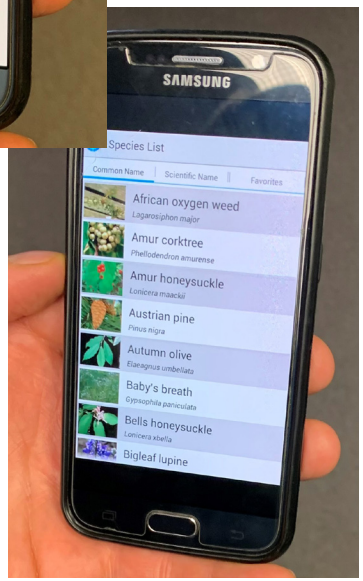
MISIN – ANDROID APP REPORTING



1. Tap on the **Play Store** icon.
2. At the top of the screen, you will see a search bar with 3 lines on the left and a microphone on the right.
3. Tap on the search bar and type **MISIN** – tap the magnifying glass on your keyboard (bottom right) to begin search.
4. Select MISIN: Report Invasive Species, which should be the first item listed.
5. Tap the green **Install** button that will be found in the middle of the screen.
6. Once the installation has completed, remain on the page within the Play Store and tap the green Open to open the app. The app will display a pop-up message informing the user that their name will be associated with contributed data. Tap **OK**.
7. A popup message will appear asking to allow or deny access to photos, media, and files on your device. Tap on **Allow**.
8. The app will then begin to download the necessary photos and resources.
9. Once the downloading has finished, you will be automatically directed to the Account page.
10. You will receive a popup message asking to "Allow MISIN to access this device's location?" You may either select Allow all the time or Allow only while using the app – the choice is yours.
11. If you are already registered with MISIN, fill in your username and password and tap on **Sign-in**. If you are not a registered user with MISIN, tap on **Register**.
12. Once you tap on Register, the registration form will open within the app (it may take a few seconds as it is accessing an external web address). Fill out the required information indicated by the red asterisk and tap Register at the bottom of the screen. **Make sure to check I'm not a robot – this may bring up another window asking you to select pictures that relate to the question**.
13. After completing the registration form, you will receive an automated welcome e-mail. Once registration has been completed, return to the **MISIN** app and log in. A pop-up window will appear if the log in was successful.
14. Tap on the Home button at the bottom left hand side of the app screen. If you selected "Allow only while using the app" for location, you may receive another popup message to double check your selection and ask if you want to keep while-in-use access or Allow all the time.
15. You will see in the center of the screen a section called **Report**. Select either plants or animals and tap on **Go**.

16. Displayed will be a list of different Habits, tap on the habit to then bring up a list of available species categorized under your chosen habit.
17. To report, tap on the species from the list, this will open the species information page. Select the species that you are interested in reporting. At the top, you will see a red "**Report Presence**" button and a green "**Report Absence**" button.
18. To report **Presence** data, tap on the red **Report Presence** button. You will fill out the area of the infestation and the density of the infestation. You may also attach 2 photos and insert comments (200 char max) for your observation. Hit **Save** (in the top right corner) when you are finished.
19. Once you have tapped Save you will receive a confirmation message. Tap okay if you are ready to save the observation or cancel if you would like to make changes.
20. To report **Absence** data, tap on the green **Report Absence** button on the species information page. You will only need to fill out the area in which was surveyed (approximate) and any comments you would like to include.
21. Once you have completed recording your observations, return to the home page by tapping on the back button on your device. Once you are at the home page, tap on **Send Data** to send your data to the MISIN database.
22. A message will appear that will allow you to Manage, Keep or Send your observations to the MISIN database.
    - **Manage** will allow you to delete your observation or modify the contents of the report.
    - **Keep** will close the popup window and allow you to continue to report or navigate the app.
    - **Send** will submit your records to the database. You will see Send Data text in the red button fade. It will then say Connecting followed by Sending. A window will appear that says Successful Submission.
23. Your account information will be stored, and you will remain logged in even after exiting the app.





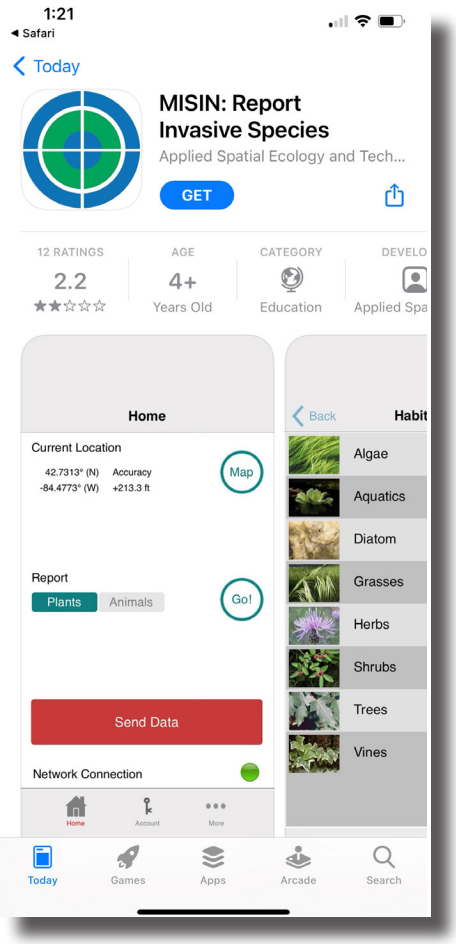
Notes:

Please make sure you have good Wi-Fi signal as well as cellular signal when first downloading the app.

If you are having trouble with the app (blank screens on Habit or Species page) tap on … More, Settings and Reload under the Update Species Catalog heading.

For help or to report an issue, please contact us at info@misin.msu.edu

MISIN – IPHONE APP REPORTING



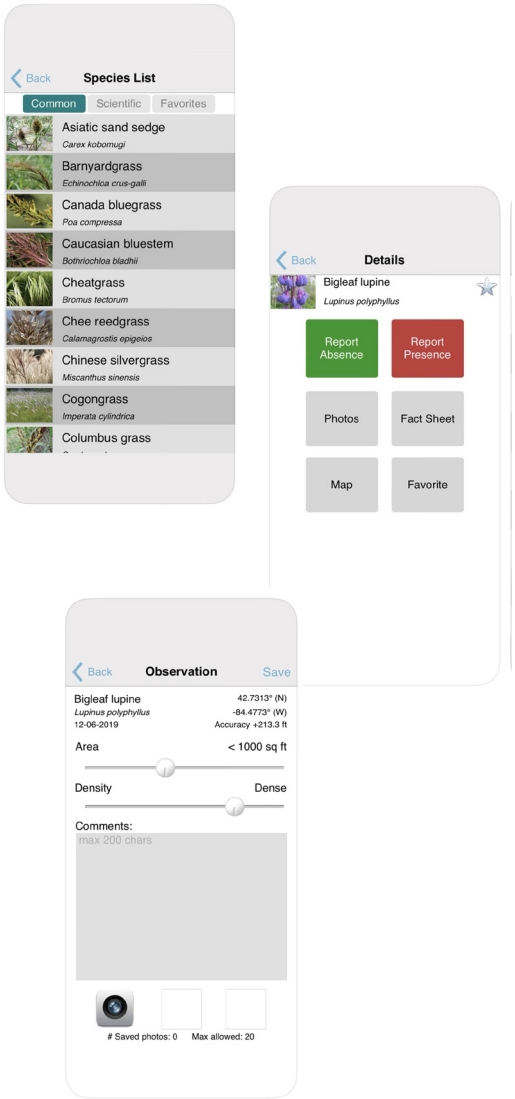
1. Tap on the **App Store** Icon
2. At the bottom of the screen, tap on **Search** (magnifying glass).
3. Type **MISIN** in the search bar at the top of the screen.
4. Select **MISIN – Report Invasive Species** which should be the first app listed under any ads that may appear.
5. Tap on the **GET** button.
6. Once the installation has completed, tap open within the app store.
7. The app will start, display the main splash screen, and direct you to the **Account** screen. **Note the blue bar at the top of the screen upon first run – this blue bar should fully load before continuing in the app**.
8. If you are already registered with MISIN, fill in your username and password and tap on **Sign-in**. You will receive a "Validation successful" message if the log in was successful. If you are not a registered user with MISIN, please tap on Register.
9. Once you tap on **Register**, the registration form will open within the app (this page may take a few seconds to load as it uses an external web address). Fill out the required information indicated with the red asterisk and tap the Register button at the bottom of the screen. **Make sure to check I'm not a robot – this may bring up another window asking you to select pictures that relate to the question**.
10. After completing the registration form, you will receive an automated welcome e-mail. Once you've completed the registration, return to the **MISIN** app and **log in**.
11. Tap **Home** in the bottom left corner - you will receive an alert message letting you know that in order to use the MISIN app, you need to allow MISIN to access your location. Select either Allow While Using App or **Allow Once**. After making your selection you will be re-directed to the home page.
12. You will see in the center of the screen a section called Report. Select either plants or animals and tap **Go**.
13. Displayed will be a list of different Habits, tap on the habit to then bring up a list of available species categorized under your chosen habit.

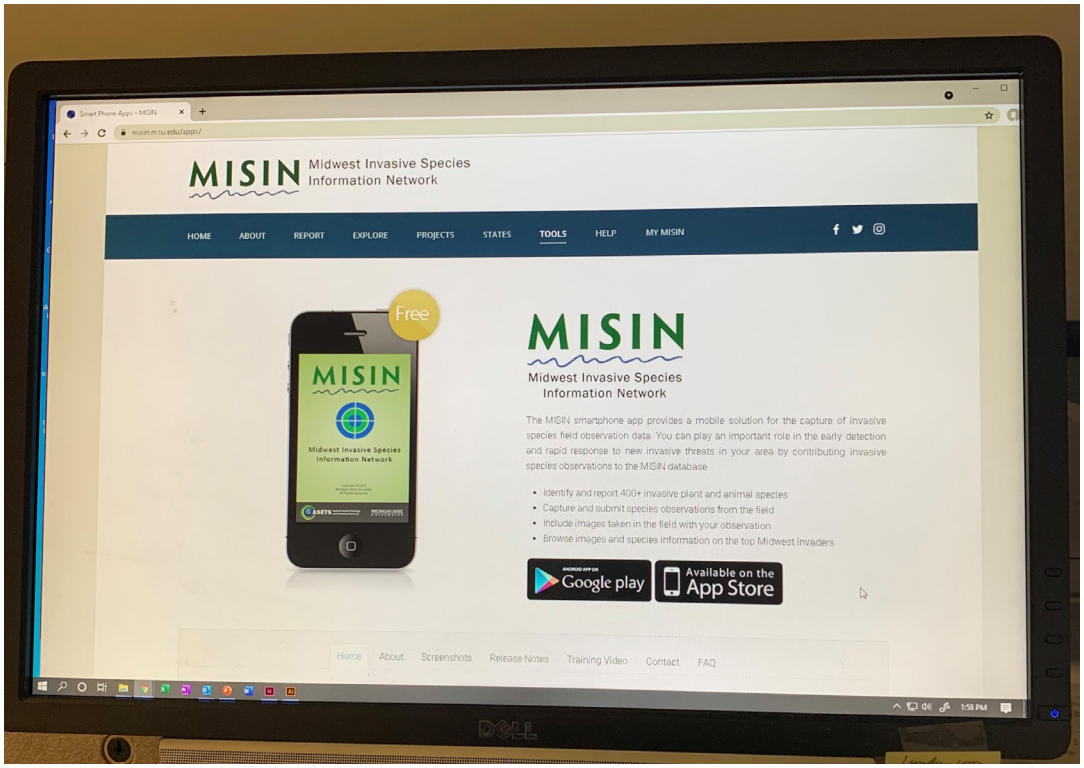
14. To report, tap on the species from the list, this will open the species information page. Select the species that you are interested in reporting. At the top, you will see a red "**Report Presence**" button and a green "**Report Absence**" button.
15. To report **Presence** data, tap on the red Report Presence button. You will fill out the area of the infestation and the density of the infestation. You may also attach 2 photos and insert comments (200 char max) for your observation. **Hit Save** (in the top right corner) when you are finished.
16. Once you have tapped **Save** you will receive a confirmation message. Tap okay if you are ready to save the observation or cancel if you would like to make changes.
17. To report **Absence** data, tap on the green Report Absence button on the species information page. You will only need to fill out the area in which was surveyed (approximate) and any comments you would like to include.
18. Once you have completed recording your observations, return to the home page by tapping on the back button on your device. Once you are at the home page, tap on **Send Data** to send your data to the MISIN database.
19. A message will appear that will allow you to
20. Manage, Keep or Send your observations to the MISIN database.
    - **Manage** will allow you to delete your observation or modify the contents of the report.
    - **Keep** will close the popup window and allow you to continue to report or navigate the app.
    - **Send** will submit your records to the database. You will see Send Data text in the red button fade. It will then say Connecting followed by Sending. A window will appear that says Successful Submission.
21. Your account information will be stored, and you will remain logged in even after exiting the app.

Notes: Please make sure you have good Wi-Fi signal as well as cellular signal when first downloading the app.

If you are having trouble with the app (blank screens on Habit or Species page) tap on … More, Settings and Reload under the Update Species Catalog heading.

For help or to report an issue, please contact us at info@misin.msu.edu

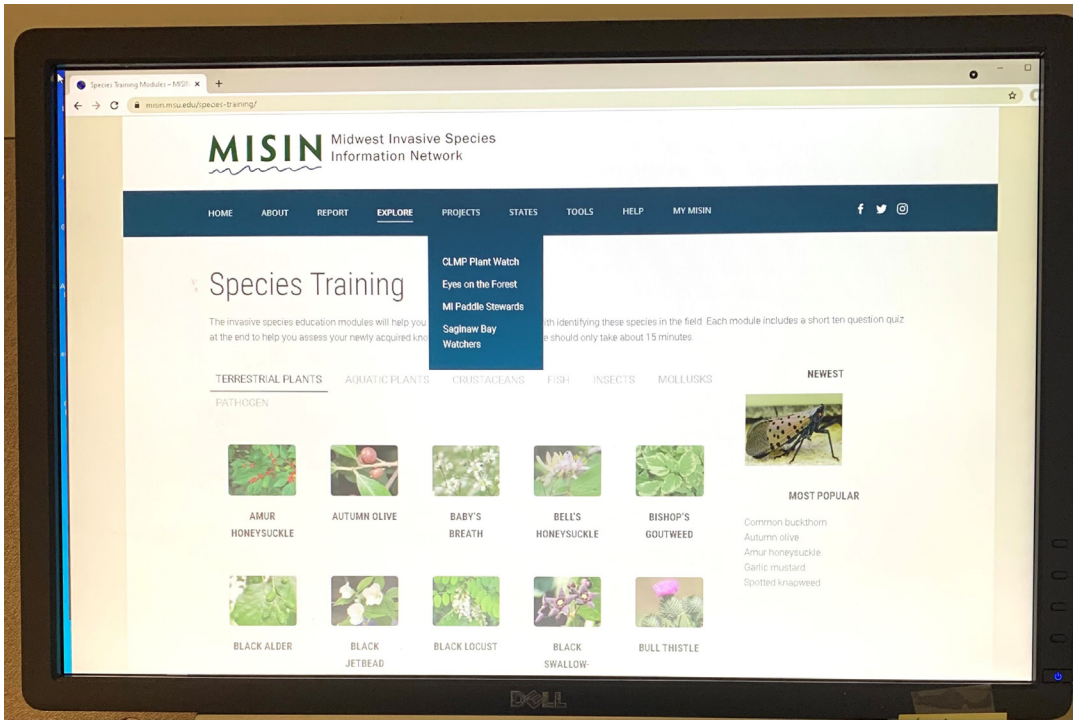




MISIN – DESKTOP REPORTING

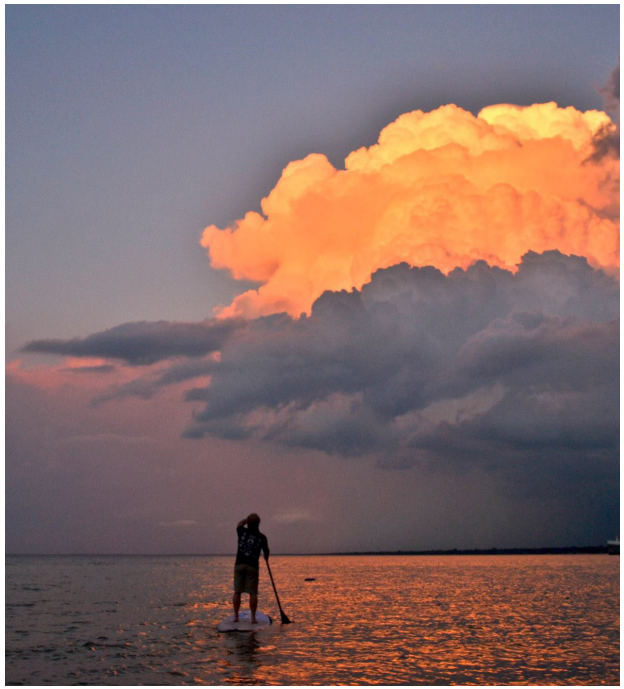
1. Go to the following URL:
   - https://www.misin.msu.edu
2. In the blue toolbar, click on **My MISIN** on the far right.
3. Under Create an Account, click on **Register Now**.
4. Fill in all the required information on the Registration form, indicated by the red asterisk. There will also be additional fields that you may fill in that are not required (i.e. Affiliation, Address).
5. You will be sent a welcome/confirmation e-mail after completing the registration.
6. After registering and receiving your confirmation e-mail, click on **My MISIN** in the toolbar to **Log In**.
7. Type your username and password into the appropriate boxes on the left hand side of the screen under Account Login. When you have successfully logged in, you will be re-directed to the home page.
8. Click **Report** in the blue toolbar – third option from the left.
9. Select the species you would like to report from the list provided. You can narrow your search by clicking the options in the green toolbar.
10. Once you select a species, you will be brought to the **Reporting form.**
11. You may either type in an address, coordinates or even crossroads into the search bar at the top of the map, then click Locate. The pin marker symbol will automatically be placed at the entered location.

12. You may also manually place the pin marker on the map by clicking anywhere on the map. The map will automatically zoom in to the required level. To move the pin, simply click, hold and drag the marker to the desired location.
13. After placing a marker in the proper location, scroll down to fill out in the remaining information. Tool tips can be found by hovering over the (?) symbol. The Latitude and Longitude will be automatically populated based on where the marker is located on the map.
14. Once you have completed the observation form and included 2 photographs if available, please click **Submit Report.** After clicking on Submit, your data will be validated and if successful you will be presented with a summary page which will indicate a "Successful Data Entry" and display the details of your sighting. This page can be printed for your records.



Sleeping Bear Dunes, Northern Swag.

GENERAL REFERENCES AND ADDITIONAL RESOURCES



ACCESS RECREATION GROUP, LLC
AccessRecreationGroup@juno.com

CHAIN OF LAKES WATER TRAIL PLAN, 2016
Paddle Antrim
www.paddleantrim.com

DEVELOPING WATER TRAILS IN IOWA, 2010
Practical Guidelines and Templates for Planning, Site Design, Signage, and Construction in the State of Iowa
Wagner, Mimi. Iowa State University Department of Landscape Architecture
Hoogeveen, Nate. Iowa Department of Natural Resources
www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking/Water-Trail-Development

AN ECONOMIC ARGUMENT FOR WATER TRAILS, 2015
Warren, Natalie. River Management Society
www.river-management.org/assets/WaterTrails/economic%20argument%20for%20water%20trails.pdf

FIELD MANUAL ON MAINTENANCE OF LARGE WOODY DEBRIS FOR MUNICIPAL OPERATION AND MAINTENANCE CREWS
Clinton River Watershed Council
www.crwc.org/wp-content/uploads/LWD-Manual-Final.pdf

GEORGIA RIVER NETWORK CHECKLIST FOR STARTING A WATER TRAIL
www.garivers.org/files/Newtrailchecklist.pdf

HURON RIVER WATER TRAIL ECONOMIC IMPACT ANALYSIS, 2013
Washtenaw County Office of Community and Economic Development
www.hrwc.org/our-work/programs/riverup/riverup-status-of-projects/measuring-the-economic-impact-of-riverup/

LAND INFORMATION ACCESS ASSOCIATION (LIAA)
www.liaa.org

LEAVE NO TRACE
Seven Principles of Leave No Trace
www.lnt.org/learn/seven-principles-overview

LOCAL ENTREPRENEURS FOCUS ON PADDLE-BOATING TO GROW ECOTOURISM, 2009
Aimone, Pam and Ferrarini, Tawni, Marquette Monthly
www.marquettemonthly.org/local-entrepreneurs-focus-on-paddle-boating-to-grow-ecotourism/

LOWER GRAND RIVER WATER TRAIL ASSESSMENT AND IMPROVEMENT PLAN, 2016
Grand River Heritage Water Trail, Ottawa County
West Michigan Environmental Action Council (WMEAC), Grand Valley State University (GVSU), Ottawa County Parks and Recreation Commission, Grand Haven Area Convention and Visitors Bureau, Lower Grand River Organization of Watersheds (LGROW), and the U.S. National Park Service (NPS)
www.wmeac.org/wp-content/uploads/2016/11/Water_Trails_Report_digital.pdf

MANAGING VISITOR USE IN DIVERSE SETTINGS USING THE IVUMC FRAMEWORK, 2015
Interagency Visitor Use Management Council
www.recpro.org/assets/Conference_Proceedings/2016/2016_managing_visitor_use_diverse_settings-panel.pdf

MICHIGAN BLUE ECONOMY, 2015
Making Michigan the World's Freshwater & Freshwater Innovation Capital
Austin, John. Michigan Economic Center at Prima Civitas
Steinman, Alan. Grand Valley State University Annis Water Resources Institute
www.michiganblueeconomy.org/wp-content/uploads/2015/03/Michigan-Blue-Economy-Report.pdf

MICHIGAN COMPREHENSIVE TRAIL PLAN, 2013
Michigan Snowmobile and Trail Advisory Council
www.michigan.gov/documents/dnr/MI_Comprehensive_Trail_Plan_425377_7.pdf

MICHIGAN SEA GRANT
www.miseagrant.umich.edu

MICHIGAN STATEWIDE OUTDOOR COMPREHENSIVE RECREATION PLAN: 2013-2017
Public Sector Consultants
www.recpro.org/assets/Library/SCORPs/mi_scorp_2013.pdf

MICHIGAN TRAILS AND GREENWAYS ALLIANCE (MTGA)
www.michigantrails.org

MICHIGAN WATER TRAIL SUMMIT, 2016
www.michiganwatertrails.org/summit2016

MILFORD TRAIL TOWN STRATEGIC PLAN, 2016
Huron River Watershed Council
Contact: Elizabeth Riggs, eriggs@hrwc.org

NATIONAL PARK SERVICE MAP SYMBOLS AND PATTERNS
www.nps.gov/hfc/carto/map-symbols.cfm

NATIONAL PARK SERVICE RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM
www.nps.gov/orgs/rtca

NATIONAL WATER TRAILS SYSTEM
www.nps.org/WaterTrails

THE OUTDOOR RECREATION ECONOMY, 2012
Outdoor Industry Association
www.outdoorindustry.org/images/researchfiles/OIA_OutdoorRecEconomyReport2012.pdf

THE OUTDOOR RECREATION ECONOMY, MICHIGAN, 2012
Outdoor Industry Association
www.outdoorindustry.org/images/ore_reports/MI-michigan-outdoorrecreationeconomy-oia.pdf

PARALLEL SOLUTIONS
www.parallelmi.com

PREPARE TO LAUNCH! 2013

Guidelines for Assessing, Designing, and Building Launch Sites for Carry-in Watercraft
National Park Service and River Management Society
www.river-management.org/prepare-to-launch

PUBLIC WATER ACCESS & WATER TRAIL SIGNAGE STRATEGIES, 2013

Minnesota Department of Natural Resources, Division of Parks and Trails

RIVER MANAGEMENT SOCIETY

www.river-management.org

RUST BELT PADDLING ARTICLES

Canoe and Kayak Magazine
www.canoekayak.com/travel/rust-belt-paddling-milwaukee-urban-water-trail/#XUTcPfeIAW8zZkbG.97

SAGINAW BAY BLUE WATER TRAIL DEVELOPMENT PLAN, 2015

Saginaw Bay Water Trail
www.saginawbaywatertrail.com

SCHUYLKILL RIVER NATIONAL & STATE HERITAGE AREA SIGN DESIGN GUIDELINE MANUAL

Pennsylvania Department of Conservation of Natural Resources and National Park Service
www.nps.gov/WaterTrails/Toolbox/DownloadFile/151

SHARING THE RIVERS: MANAGING AND MINIMIZING RECREATIONAL USER CONFLICTS

American Whitewater
www.americanwhitewater.org/content/Wiki/stewardship:share_the_river

A SPECIAL REPORT ON PADDLESPORTS 2015: CANOEING, KAYAKING, RAFTING AND STAND-UP PADDLING

Outdoor Industry Association and Outdoor Foundation
www.outdoorfoundation.org/pdf/ResearchPaddlesports2015.pdf

SUSTAINING MICHIGAN'S WATER HERITAGE: A STRATEGY FOR THE NEXT GENERATION, 2016

The Michigan Office of the Great Lakes
www.michigan.gov/documents/deq/deq-ogl-waterstrategy_538161_7.pdf

WATER TRAIL PLANNING 101

Nation Parks Service – Rivers, Trails and Conservation Assistance Program
www.nps.gov/WaterTrails/Toolbox/DownloadFile/125

WOODY DEBRIS MANAGEMENT 101 - CLEAN AND OPEN METHOD

Friends of the Rouge via Huron River Watershed Council
www.hrwc.org/wp-content/uploads/2013/03/Clean-and-Open-Method.pdf

U.S. COAST GUARD BOATING SAFETY DIVISION

www.uscgboating.org

U.S. DEPARTMENT OF TRANSPORTATION

Manual on Uniform Traffic Control Devices (MUTCD)
mutcd.fhwa.dot.gov

Middle Grand River, Lansing.

RESOURCES FOR WATER TRAIL PLANNERS

This toolkit is designed to provide water trail planners with the resources and materials to kick-start a local water trail initiative.

IN THIS APPENDIX:

WHAT IS A WATER TRAIL? – ONE-PAGE HANDOUT
A flyer about water trails that the steering committee can use at public meetings and distribute to interested parties.

SAMPLE RESOLUTION
A sample resolution to be approved by the legislative bodies that have access sites along the water trail.

STEERING COMMITTEE FORM
Identify local and regional steering committee members.

WATER TRAIL IMPLEMENTATION TABLE
A sample table to identify roles, responsibilities and timelines for implementing a water trail.

SAMPLE PARTNERSHIP AGREEMENT
A sample partnership agreement to solidify the commitment between the water trail organizer and an access-site owner to work together on the implementation and promotion of the water trail.

ACCESS-SITE ASSESSMENT FORM
Assess the elements of each access site along your water trail.

COMMUNITY CELEBRATION FORM
Identify the festivals, celebrations, and events that occur in communities along your water trail.

LOCAL MEDIA FORM
Identify media outlets and contacts in the communities along the water trail.

WRITING A PRESS RELEASE TEMPLATE
A sample press release that can be used to highlight your water trail. This also includes a guide on how to construct a press release.

FUNDING SOURCES
Potential funding sources that are available to plan for and implement your water trail.

DRAFT STATE DESIGNATION CRITERIA
DNR Draft Designation Criteria for water trails in Michigan.

LIABILITY & EMERGENCY TRESPASS RESEARCH
Two advisory research papers prepared for Michigan Sea Grant by the National Sea Grant Law Center.

WHAT IS A WATER TRAIL?

A water trail is a recreational paddling route along a lake, river, canal or bay specifically dedicated for people using small boats like kayaks, canoes and stand-up paddleboards (SUPs). In urban areas, water trails may feature well-developed access and launch sites; are typically located near significant historical, environmental or culture points of interest; and are often close to amenities such as restaurants, shops and hotels. In wilderness areas, water trails may feature very few amenities outside of an occasional primitive campground.

WHAT MAKES WATER TRAILS UNIQUE?

So what is the difference between a water trail and the well-established paddling routes people have used throughout Michigan for hundreds of years? The primary difference between a water trail and a paddling route is that a water trail is organized, supported and managed by a dedicated entity and/or community partnership that declares its intention to be responsible for the long-term funding, development and management of the trail.

AMENITIES

Well-developed water trails are typically supported by amenities such as a formal launch (including an accessible launch); parking; a bathroom; trash receptacles; potable water; a boat washing station; picnic tables; shelter; lockers; a boat rack; wayfinding signage; and an informative kiosk.

WATER TRAILS
SAMPLE RESOLUTION

A sample resolution to be approved by the legislative bodies that have access sites along the water trail

ORGANIZATION
Resolution DATE

Resolution to Add Public Parks and Road End Public Access Sites to the _____
_____

The following public parks and road end public accesses will be places on the Chain of Lakes water trail map:

- Banks Township Park/Lake Michigan Access

The Township of Banks, to the best of its ability, will maintain the following criteria for the Banks Township Park access point:

- The access point must be open to the public use and is designed, constructed and maintained according to best management practices, in keeping with anticipated use;
- the trail is in compliance with the applicable land use plans and environmental laws;
- the trail will be open for public use for at least 10 consecutive years.

This resolution was offered by Supervisor Thomas Mann and seconded by Trustee Tom Cooper.

Yes: Postmus, Cooper, Mann, Heeres.

Nays: None.

Absent: Rasmussen.

The above resolution was declared adopted by Supervisor Thomas Mann at a regularly scheduled meeting of the Banks Township Board on Monday, July 21, 2014, at 7 PM.

Donna L. Heeres, Banks Township Clerk

WATER TRAIL STEERING COMMITTEE FORM

Identify local and regional steering committee members. Can also be used as a sign-in sheet for meetings.

WATER TRAIL STEERING COMMITTEE				
Name/Title	Address	Phone	Email	Area of Interest

WATER TRAIL IMPLEMENTATION TABLE

The following implementation table should begin to be filled out by the steering committee at the onset of the planning and development process. Over the course of the planning process, some roles and responsibilities may become better defined. Because most water trails take several years to fully develop, you may not be able to identify all the roles and responsibilities of certain components until they are phased in and ready for implementation.

Activity	Responsible Party(s)	Approving Party(s)	Partner(s)	Timeframe
WATER TRAIL MANAGEMENT				
Convene steering committee meetings				
Lead planning and project scoping: roles, activities, costs				
Lead/facilitate partnership coordination, coordinate work plans and all activities (trail and site development, fundraising, volunteer coordination, communications/marketing, events) with site owners				
Lead activity scheduling (monthly, weekly, daily)				
Dashboard/monitor on activity progress				
Define overall project phasing/timing (annual and long-term capital improvement planning)				
Coordinate management plans with site owners				
Correspondence/administrative tasks				
Financial management and reporting				
Safety plan and coordination with local public safety agencies				
Access-site monitoring and management (seasonally, monthly, weekly, daily). Clearing trash, cleaning bathrooms, mowing lawns, parking lot maintenance, removal and replacement of equipment, etc.				
FUNDRAISING				
Lead private campaign planning and feasibility study, and form campaign cabinet				
Develop funding plan				
Prepare case for support				
Research prospective private donors				
Conduct feasibility interviews with donors				
Research and write public grants				
Host in-home visits				
Cultivate major donors				
Solicit major gifts				
Manage direct mail/membership mailings				

CONTINUED...

IMPLEMENTATION TABLE (CONTINUED)

Activity	Responsible Party(s)	Approving Party(s)	Partner(s)	Timeframe
VOLUNTEER COORDINATION				
Identify volunteer roles				
Prepare volunteer job descriptions				
Recruit volunteers				
Train volunteers				
Coordinate monthly, weekly, daily volunteer activities, including work bees				
Steward/thank volunteers				
COMMUNICATIONS & MARKETING				
Lead communications/audience engagement planning				
Prepare audience-specific communications and marketing materials				
Manage media relationships, prepare press release				
Prepare content and update website				
Prepare content and post social media				
EVENTS				
Plan and coordinate public events (festivals, marketed and guided programs and activities)				
Plan and coordinate private events (invitation-only events)				

SAMPLE PARTNERSHIP AGREEMENT

A sample partnership agreement to solidify the commitment between the water trail organizer and an access-site owner to work together on the implementation and promotion of the water trail.

CHAIN OF LAKES WATER TRAIL PARTNERSHIP AGREEMENT

PURPOSE

The purpose of this agreement is to describe how Paddle Antrim and _____ (site owner) will work together on the implementation and promotion of the Chain of Lakes Water Trail for the approved water trail access sites owned by the site owner.

DEFINITIONS

Primary Access Sites (or "Trailheads") - A designated, approved access site that is promoted for use by the water trail manager and the site owner, and serves as a trailhead. Each primary access site will have a suitable launch surface, off street parking for vehicles, and restrooms. Other amenities may include garbage disposal or recycling receptacles, potable water, picnic areas, and/or boat racks/lockers. Paddle Antrim recommends that directional signage from roadways, wayfinding signage visible from the water, and information kiosks regarding the water trail and other information be included at these sites. These access sites will have the most amenities and Paddle Antrim's communications materials will encourage paddlers to launch and exit from these sites. These sites are ideal locations for access site owners to consider the future development and/or improvements of Universal Access design features related to the water trail.

Alternative Access Sites - A designated, approved access site from which to launch and land a non-motorized watercraft. Each access site will have a suitable launching surface and will include at least some legal public parking sites which may be along a public roadway. Paddle Antrim also recommends that wayfinding signage from the water and on-site water trail information signage is included at these sites.

Rest Stops - A designated, approved site where the site owner has permitted paddlers to land a watercraft. These sites may not be easily accessed from a road or have an ideal landing surface. Rest areas may or may not have amenities but do provide a safe haven for paddlers. Paddle Antrim recommends that rest stops have wayfinding signage visible from the water.

ROLES

Paddle Antrim will:

- Coordinate and manage the water trail project.
- Prioritize project improvements throughout the water trail.
- Provide recommended specifications for amenities including signage, boat racks, parking, and launches.
- Develop water trail promotional materials and keep online information updated based on information in partnership agreements.
- Work with our partners to evaluate the outcomes, uses, and impacts of the water trail, and periodically evaluate access site usage during peak times and at events.
- Maintain communication with a designated representative from the partnering organization/entity.

SITE OWNER WILL:

- Maintain the site and amenities located onsite.
- Promote the water trail using the promotional website and materials developed.
- Share any changes in the access sites and concerns that are raised about the site or water trail with a designated representative from Paddle Antrim.

CONTINUED...

PARTNERSHIP AGREEMENT (CONTINUED)

WATER TRAIL PROMOTION

Paddle Antrim and the site owner will work together to promote the water trail. Paddle Antrim will keep the Paddle Antrim website (www.paddleantrim.com) and the water trail mapping information (www.michiganwatertrails.org) up-to-date so that both entities can direct interested paddlers to these sites. The information for the site owner's access sites will be based on the information in this Agreement. Paddle Antrim will also develop other promotional materials and will keep this information current. Paddle Antrim will share this information so that the site owner can share and promote the water trail.

SIGNAGE AND OTHER AMENITIES

Paddle Antrim recommends all primary sites have directional signage from the road, a kiosk with ample information and wayfinding signage from the water. Paddle Antrim recommends all alternative access sites to have a water trail map and wayfinding signage from the water. Paddle Antrim recommends all rest stops to have wayfinding signage from the water. Paddle Antrim will share recommended sign specifications with the site owners.

When signage and any significant amenities are installed, the site owner will coordinate with Paddle Antrim to celebrate the success with a ribbon cutting ceremony. Paddle Antrim will assist with promotion of the ceremony and develop a press release to share the success.

COMMUNICATIONS

Paddle Antrim and the site owner's designated representative will have an annual in-person meeting to discuss the water trail sites, resolve any conflicts and/or discuss potential improvements. If any concerns arise between the annual meetings, the point of contacts/designated representatives are:

Paddle Antrim: Deana Jerdee, executive director
231-492-0171 and deana@paddleantrim.com

Site Owner/Landowner: _____

Phone Number _____ Email address _____

SITE SPECIFIC INFORMATION

The attachment identifies each water access site approved by the site owner. It includes the classification of each site, existing amenities at each site and any special instructions which shall be included in site promotion.

This agreement is good for 12 months, expiring on _____.

PADDLE ANTRIM	SITE OWNER NAME
_____	_____
Signature	Signature of Authorized Representative
_____	_____
Printed Name,Title	Printed Name, Title
_____	_____
Date	Date

WATER TRAILS
ACCESS-SITE ASSESSMENT FORM

Assess the elements of each access site along your water trail.

Location Name:	
Address or Community:	
Latitude:	**Longitude:**
Miles from Last Access:	Miles from Start:
Site Ownership: (City, county, state, etc)	
Location Contact (person):	
Location Phone:	
Location Email:	
Location Website:	

Location Amenities (add notes if applicable):

- ☐ ADA Accessible
- ☐ Boat Storage ____rack _____secured rack with lock
- ☐ Fee ____parking ___entrance/launch Amount?_____
- ☐ Camping ____rustic (area for tents and restrooms) ____improved (electric, running water, showers)
- ☐ Lighting
- ☐ Parking ___parking lot ____dead end/road end ___on-street ___ on road shoulder
- ☐ Picnic Area
- ☐ Power
- ☐ Restrooms ___pit ____flush
- ☐ Shelter (not overnight use)
- ☐ Potable Water
- ☐ WiFi

Boat Access Type (if Water Access): ☐ Developed ☐ Carry-In ☐ Alternate

Length/Ease: _____ more than 50 yards ____less than 50 yards
Notes on significant encumbrances (hills, sand, vegetation, rocks) from parking area to launch area:

Access Site Sign: _____in the water/on shore/bank (visible from water) _____along road (visible from road)

Nearby Local Outfitter: ___just rentals _____just rentals including transport of boat ____rentals and tours

over

ACCESS-SITE ASSESSMENT FORM (CONTINUED)

Description (interesting or unique features about the access site other amenities, things to note, and anything else important about this location):

Environmental & Conservation Concerns (e.g., shoreline erosion, phragmites)

Potential Improvements

Name:	
Date & Time:	
Contact:	Phone: Email

WATER TRAILS
COMMUNITY CELEBRATION FORM

Identify the festivals, celebrations, and events that occur in communities along your water trail.

WATER TRAIL COMMUNITY EVENTS, FESTIVALS AND EVENTS
EVENT
Event:
Description:
Date:
Organizer:
Contact:
EVENT
Event:
Description:
Date:
Organizer:
Contact:
EVENT
Event:
Description:
Date:
Organizer:
Contact:
EVENT
Event:
Description:
Date:
Organizer:
Contact:

WATER TRAILS
LOCAL MEDIA FORM

Identify each media outlet in the communities along the water trail.

MEDIA OUTLETS
ORANIZATION AND CONTACT INFORMATION
Name
Description:
Contact/Position:
Phone/Email:
Website:
Contact For (press release, editorial, advertisment, etc.):
ORANIZATION AND CONTACT INFORMATION
Name
Description:
Contact/Position:
Phone/Email:
Website:
Contact For (press release, editorial, advertisment, etc.):
ORANIZATION AND CONTACT INFORMATION
Name
Description:
Contact/Position:
Phone/Email:
Website:
Contact For (press release, editorial, advertisment, etc.):
ORANIZATION AND CONTACT INFORMATION
Name
Description:
Contact/Position:
Phone/Email:
Website:
Contact For (press release, editorial, advertisment, etc.):
ORANIZATION AND CONTACT INFORMATION
Name
Description:
Contact/Position:
Phone/Email:
Website:
Contact For (press release, editorial, advertisment, etc.):

TEMPLATE GUIDE
WRITING A PRESS RELEASE

A sample press release that can be used to highlight your water trail. This also includes a guide on how to construct a press release.

Let recipients know when you want them to publicize your information. Usually it's immediately, but you can also prescribe a date/time of your choosing.

FOR IMMEDIATE RELEASE – PLEASE FORWARD

Contact(s) should be well informed on the press release and its subject matter, and willing and able to be contacted. Always include phone number AND email, and use the contact information that is most immediate for the contact (e.g., if they use a cell phone more often than they answer their office phone, use the cell). Make it as quick and easy as possible for press to reach your contacts.

Contacts:
Mary Montague, Village of Paddlewell, 231-444-5555,
mmontague@paddlewellmi.gov
Carl Crawford, Friends of the Michiganee, 231-333-7777,
mrwtrail@gmail.com

Include a headline. The best are short and to the point, but also intriguing. A headline can also be used as the subject line on an email distribution (i.e., "News Release: Treadwell achieves National Water Trail status").

Michiganee River Water Trail in the works

Include a subhead with a brief, accurate preview of the release's contents and any important dates or deadlines.

Local committee seeks public input on how to best accommodate and promote paddling on the Michiganee.

Familiarize yourself with common journalistic style guides such as that of the Associated Press (AP). A release leads with a dateline that includes the town name in all capital letters, followed by an abbreviation of the state where the town is located (for all but the largest, most well-known cities). Note that the journalistic abbreviations for states are not the same as postal abbreviations; lists of AP Style state abbreviations can be found online. Also include the date of your release. Following some of these basic guidelines will make your release more professional and, more importantly, make it easier for journalists to use your information.

PADDLEWELL, Mich. – May 2, 2017 – Public input on a water trail planning effort for the Michiganee River will be gathered at an open house on Wednesday, May 17 from 6:30 p.m. to 8 p.m. in the Paddlewell Village Hall, 610 Main Street.

A water trail is a designated route along a lake, river, canal or bay specifically designed for people using small boats like kayaks, canoes, single sailboats or rowboats. The trails, sometimes called "blueways," are the aquatic equivalent of a hiking trail (or "greenway"). Water trails feature well-developed access and launch points, and they often connect paddlers with significant historical, environmental or cultural points of interest along the way, including nearby amenities such as restaurants, hotels and campgrounds.

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PRESS RELEASE TEMPLATE GUIDE (CONTINUED)

List the content of your release (the who, what, where, when, why and how) in order of importance from top to bottom, so if a journalist wants to shorten your information for publication, the most important details won't be omitted. Include quotes from prominent people involved in the effort, and include avenues for additional information (contact information, office locations).

Optionally, "boilerplate" information about the group(s) involved in your effort can also be added to the end of your release. Journalists can refer to this if they or their audiences want additional background information about the organization(s) involved.

The Michiganee River includes 79 miles of river and tributary streams that drain into Lake Michigan. While the Michiganee is already used by paddlers, local leaders hope to create a formal water trail that balances the recreational needs of paddlers with the surrounding natural environment and other uses on the river. Additionally, they hope to develop better ways to link the river with communities and businesses along the way.

"We see great potential for a water trail on the Michiganee," said Mary Montague, Paddlewell village council president and a member of the steering committee that is overseeing the planning of the water trail. "Public input will help us get more specific in terms of desired improvements and priorities for the trail."

At the May 17 open house, the public will be asked to weigh in on goals for the water trail and prioritize new amenities to improve access to the water and ease of use. The evening will kick off with a short presentation on the project beginning at 6:30 p.m.

For more information on the water trail planning effort, visit the village website at www.paddlewellmi.gov or call 231-444-5555.

WATER TRAIL FUNDING SOURCES

Potential funding sources that are available to plan for and implement your water trail.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY – OFFICE OF THE GREAT LAKES

MICHIGAN COASTAL ZONE MANAGEMENT PROGRAM

The Michigan Coastal Zone Management Program (CZMP), in partnership with the National Oceanic and Atmospheric Administration (NOAA), is an annual competitive grant program that funds projects for low-cost construction of water trails, barrier-free canoe/kayak launches, parking lots, interpretive signage and other amenities that improve access to the Great Lakes. CZMP also funds the development of water trail master plans and development studies. Coastal jurisdictions, certain regional agencies, universities, tribal governments and non-profit organizations are eligible to apply. Grant amounts must be no less than $10,000 and no greater than $100,000 and require a 1:1 match from the applicant. Local match can be in the form of cash, in-kind services, and other grant funds from non-federal sources. **www.michigan.gov/coastalmanagement**

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

MICHIGAN NATURAL RESOURCES TRUST FUND

Through a series of voter-approved referendums, the Michigan Department of Natural Resources oversees funds derived from royalties on the sale and lease of State-owned mineral rights. These funds are then granted back to qualifying agencies to acquire and develop lands for public recreation, or for protection of land for its environmental importance or scenic beauty. A minimum 25 percent local match is required in addition to an updated 5-Year Parks and Recreation Master Plan. Grant applications are due April 1st each year. **www.michigan.gov/dnr-grants**

MICHIGAN RECREATION PASSPORT GRANT

The Michigan Department of Natural Resources oversees funds from the sale of the Recreation Passport, which replaced the resident Motor Vehicle Permit for state park entrance. A portion of the revenues are then granted back to qualifying agencies for development projects. The program is focused on renovating and improving existing parks, but the development of new parks is eligible. **www.michigan.gov/dnr-grants**

LAND AND WATER CONSERVATION FUND

The National Park Service distributes funds to the Michigan Department of Natural Resources in order to fund outdoor recreation facility development. In recent years, the focus of these grants has been on trails, community outdoor recreation, green technology in outdoor recreation, universal access, or coordination and cooperation among recreation providers. A 50 percent match is required and grant requests must be between $30,000-$100,000. In addition, the community must have an updated 5-Year parks and Recreation Plan on file with the DNR. **www.michigan.gov/dnr-grants**

FORESTRY, INVASIVE SPECIES AND AQUATIC HABITAT GRANT PROGRAMS

The Michigan Department of Natural Resources works with local partners and agencies to provide funding for community forestry, invasive species removal, and aquatic habitat protection activities. Visit the DNR's website at **www.michigan.gov/dnr-grants** for grant opportunities and program details.

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FUNDING SOURCES (CONTINUED)

MICHIGAN DEPARTMENT OF TRANSPORTATION

TRANSPORTATION ALTERNATIVES PROGRAM

The Transportation Alternatives Program (TAP) is a competitive grant program that funds projects such as multi-use paths, streetscapes, and historic preservation of transportation facilities that enhance Michigan's intermodal transportation system and provide safe alternative transportation options. The Michigan Department of Transportation and Southeast Michigan Council of Governments each have access to federal transportation funds to support place-based economic development by offering transportation choices, promoting walkability and improving quality of life. A minimum 20 percent local match is required for proposed projects and applications are accepted on an ongoing basis online. **www.michigan.gov/mdot**

MICHIGAN QUIET WATER SOCIETY

The Michigan Quiet Water Society is a 501(c)(3) non-profit organization that works to educate the public and encourage participation in non-motorized outdoor recreation; promote public concern for the water resources of the Great Lakes region; support environmental stewardship and conservation of natural resources; and plan and execute annual and special events for any or all of these purposes, including the annual Quiet Water Symposium. Each year the Society awards grants to non-profit and civic organizations and clubs for projects that have included water trail development, accessibility assessments, paddling events and habitat improvement. Last year the Society awarded a total of $9,000 to eight different organizations. Visit the Quiet Water Society website at **www.quietwatersociety.org** for more information about its grant program.

NATIONAL PARK SERVICE

RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM

The Rivers, Trails and Conservation Assistance Program draws on a large network of conservation and recreation planning professionals to assist local communities with recreational projects. Applications for assistance are competitively evaluated on how well the application aligns with program criteria. **www.nps.gov/orgs/rtca/index.htm**

OUTDOOR FOUNDATION

OUTDOOR NATION INITIATIVE, PADDLE NATION PROJECT

The Outdoor Foundation is a not-for-profit 501(c)3 foundation established by the Outdoor Industry Association. Outdoor Nation is a national initiative of the Outdoor Foundation that offers some grant opportunities, including its Paddle Nation Project, which awards grants up to $2,500 to 501(c)3 non-profit organizations and colleges/universities to help connect young Americans with their waterways through recreational paddling. **www.outdoornation.org/grants**

LOCAL TOOLS

Local municipal financing tools, like Tax Increment Financing (TIF), can also be utilized to fund water trail improvements, especially in urban areas. In addition, tax credits are available to small businesses who make accessibility improvements that better serve customers with disabilities (information can be found at: www.ada.gov/taxincent.pdf).

Funding may also be secured from local and regional Community Foundations, regional trail and recreation advocacy organizations, friends groups, and local conservation groups. Municipal staff members, Downtown Development Authority (DDA) staff members, interested volunteers, or even a professional grant writer can be especially helpful in researching and writing grants on behalf of a local water trail initiative.

Building relationships and partnerships with local businesses is also critical in securing funding for your water trail initiative. Local businesses (especially restaurants, breweries, outfitters and hotels/resorts) may be willing to sponsor special trail-related events and activities. Furthermore, local businesses may be willing to take on the cost of providing and building trail amenities and support services.

The more that local leaders can involve a wide variety of interest groups, stakeholders and individuals in the water trail planning effort, the more likely it will be to secure funding from these different sources.

DRAFT STATE DESIGNATION CRITERIA

Agency Guidelines on State Water Trail Designations

DRAFT 8-18-16

Designated Water Trails Program Background

For Michigan's early residents—both Native and European—blue highways were the preferred mode of transportation. Rivers and lakes defined settlement patterns, trade routes, economic development and identity. Today these same waters, united in a comprehensive water trails system, can promote economic development and healthy communities as they offer residents and visitors the Michigan experience provided by welcoming, exceptional people living amidst extraordinary natural resources.

The Statewide Comprehensive Outdoor Recreation Plan, DNR-Managed Public Land Strategy (Land Strategy), the Comprehensive Trail Plan (Trail Plan), the Parks and Recreation Division Strategic Plan, and the Water Strategy all call for the establishment of a statewide system of designated water trails. Water trails present great opportunities to grow local and regional economies, strengthen regional identity, attract out-of-state tourists and workers, promote healthy lifestyles and showcase Michigan's incredible water resources.

The State Water Trail Designation Program will provide sound information to help customers make recreational activity choices and to provide a level of expectation for the trail experience. A trail designation system will provide a template of information to potential water trail users and will include:

- The length of the trip and time required to complete it
- The type of trip, motorized or non-motorized
- The degree of challenge and skills required
- The degree of solitude, safety and natural viewsheds
- Predictable or unpredictable paddling factors one might experience
- Access sites, amenities and accessible features
- Community cultural and natural heritage assets connected to the trail

Clear, consistent communication about trails will contribute to successful recruitment and retention of new water trail users and encourage return visits to regional destinations, bringing this emerging recreation demographic to new cities and regions.

Key Goal/Measurable Objective:

The goal of the State Water Trail designation program is to create a sustainable system of water trails that are geographically dispersed, locally supported, and offer a diversity of experiences. These experiences will include varying lengths, scenery, heritage exploration, water trail challenges (or difficulty levels) and amenities. Water trails can be a catalyst for improved recreational opportunity, resource conservation, healthy lifestyles and local prosperity.

The measurable objective established in the Trail Plan and repeated in the Land Strategy is:
Within five years, designate public water trails that have appropriate signage, amenities, safety measures, and promotion on 30 percent of Michigan's navigable waters, five connected lake systems and 75 percent of Michigan's Great Lakes shoreline and connecting channels.

Program Needs:

While federal and state agencies, communities, and organizations have made substantial investments in the infrastructure necessary to support a designated water trail system, there are program pieces absent, including:

- Standardized criteria to be considered a state-designated water trail for facilities and amenities such as:
    - Location of primary access sites, access sites and rest areas.
    - Signage and comprehensive mapping

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

  - Overnight accommodation & camping opportunities
  - Restrooms, potable water and accessible features
  - Emergency contact and safety measures
- An inventory of existing and potential trails that currently meet the criteria.
- A means to officially designate the trails.
- A marketing and promotional campaign for designated trails.
- A process for public input on potential designated trails.
- A means to ensure respect for property owners adjoining a designated trail.
- Funding sources for local trail development, operations and maintenance, and statewide program management.
- Establishment of strong partnerships.
- Comprehensive understanding of all existing management plans for a water body, such as the Michigan's Natural Rivers and the Federal Wild and Scenic Rivers and land use plans and laws that regulate adjacent lands.

This document provides a comprehensive plan for establishing a water trails program within the DNR, supported by partners in the public and private sectors.

Authority for Establishing a Designated Water Trails Program:

PA 451 of 1994, Section 502: "The Department may provide and develop facilities for outdoor recreation."

Definitions:

Access Site: Public (federal, state, county or local units of government) or private land where it is legal for the general public to access, launch and land a watercraft into and from its adjoining waters. Access sites will have at least some legal parking along a public roadway. Access sites are also rest areas and may include amenities.

Barrier Free Access: A facility and its amenities can be approached, entered and used by persons with disabilities.

Designee: The designee is defined as the public or non-profit body that has applied and received state water trail designation on a particular water system.

DNR: Michigan Department of Natural Resources

Lake systems: Lakes that are linked either through connecting waters or a portage.

Launch: The mechanism used to access the water. Whenever possible, the type of launch should match the context of the surrounding environment. Launch types may include a natural surface (shoreline), paved ramp, geo-textile mat, stairs, dock, cantilever dock, floating dock, and designated launch that meet the guidelines to be barrier free.

Primary Access Site or Trailhead: A designated, legal access site that is promoted for use by the water trail and serves as a trailhead. The primary access site will have an appropriate launch and landing facility for the context of the site, off street parking for vehicles, water trail and local wayfinding signage and amenities such as restrooms, potable water, picnic areas and boat racks. A primary access site is also an access site and a rest area.

Portage: The practice of carrying water craft or cargo over land, either around an obstacle in a river, or between two bodies of water.

Rest areas: Places where it is permissible to land a watercraft, but not a place to access the water from a road. Rest areas may have campsites and amenities.

Trailhead: See Primary Access Site

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

Water Trail: Recreational routes, motorized or non-motorized, on waterways with a network of public access sites.

State Designated Water Trails: Water trails that have been approved for designation by DNR, following a prescribed process. Designated water trails are supported by broad-based community partnerships and a statewide marketing program, which provide conservation, heritage and recreation opportunities.

Pure Michigan Water Trails: Exceptional Michigan water trails designated under public law, and developed under a separate section of rules (Section 72112 of 2014 PA 210, MCL 324.72112, and Executive Reorganization Order Nos. 1991-22, 2009-31, and 2011-01, MCL 299.13, 324.99919, and 324.99921)

National Water Trails: A subset of the national recreation trail program and meet the national water trail designation criteria found at the Rivers, Trails, and Conservation Assistance Program at the National Park Service.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

Designated Water Trail Criteria

The DNR, in designating a water trail, will seek to ensure the following:

1. A quality trail experience
2. Clear information for users
3. Broad community support
4. A sustainable business, maintenance & marketing plan

1. **A Quality Trail Experience Description**
   - A. The water trail is a waterway that is open to public recreational use.
   - B. The water trail has publicly available access sites and rest areas in reasonable distances depending on the designated type of experience of the trail.
     - a. All access sites and rest areas shown for the trail have been approved by the landowner to be a part of the water trail. The goal is to reduce potential conflicts and maintain public support for accessible water trails.
   - C. The water trail has reasonable amenities depending on the designated type of trail experience. Amenities may include restrooms, picnic areas, overnight lodging, camping, parking and drinking water.
     - a. Restroom facilities may be available on all trail types but can range from modern facilities to rustic. The spacing between restroom locations will vary by trail segment description.
     - b. Provide information on trail segments that provide barrier free access and amenities.
   - D. Wherever possible, programmed experiences are available to allow for increased enjoyment of the trails, understanding of the natural and cultural resources related to the trails, boating skills, outdoor ethics and efforts to improve the quality of the waterway and its water. There is an interpretive plan for the trail (or active effort to develop) that identifies its cultural and natural heritage, and ways those will be shared with the public (e.g. festivals, local exhibits, signage, mobile apps, print or web).
   - E. Water trails, where possible, have connections to other recreational opportunities. Examples include camping, bicycling and hiking trails, fishing, hunting, cultural and historic experiences, etc.

2. **Provide Clear Information for Users**
   - A. A map, guide and web-based information is available that contains sufficient detail to allow the public confidence to plan and use the trails including:
     - a. Access site locations, including photos, accessible features and amenities
     - b. Trail routes and trail lengths (in miles and time)
     - c. Degree of challenge and hazard expectation within trail segments
     - d. Natural and cultural heritage features
     - e. Significant landmarks
     - f. Length and difficulty of portages
   - B. Consistent designated water trail signage is used along the trail. Signs may include direction to nearby amenities and cultural resources. Interpretive signs about cultural and natural resources are encouraged.
   - C. Information promotes safety and encourages “leave no trace” principles.
     - a. Standard signs to warn of man-made hazards such as dams or electrical lines are used on all trails.
     - b. Primary access sites are marked with reflective signage visible from water and will include wayfinding signage and emergency information.
     - c. Emergency contacts are listed on electronic and printed publications.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

d. Communicates ordinary risks with water recreation, including safety messages about personal floatation devices, self-rescue, first aid skills, natural and man-made obstacles, paddler immersion and contact with water, ambient water quality, high water or flood events, severe weather and high wind or waves.

3. **Demonstrate Broad Community Support**
   - A. The proposed water trail will be supported, managed and maintained by one or more organizations and supported by local communities adjoining the trail, who have entered into a written agreement with each other. Successful outcomes for water trail designation will be achieved by diverse community representation from sectors, such as, recreation, education, conservation, heritage, business, public safety, health, and local, regional and state government.
   - B. Support from participating local governments adjacent to the water trail is demonstrated by governing body resolution.

4. **Demonstrate a Sustainable Business, Maintenance & Marketing Plan**
   - A. A plan exists that shows how the proposed water trail will meet a quality trail experience and user information expectations in conjunction with public/ private partnerships (i.e. local liveries).
   - B. This plan will include a thorough inventory of environmental, natural and cultural assets along the waterway, including, but not limited to, existing public or private amenities, access sites, rest areas, and accessible features.
   - C. This plan identifies gaps in the desired trail and suggests strategies to address the gaps.
   - D. This plan is designed so that increased use of the trail will not degrade the local experience, cultural resources, the environment or existing recreational uses. The plan will identify programs and facility designs to ensure long-term sustainability of the waterway.
   - E. The trail is in compliance with applicable local, state and federal land use plans and environmental laws.
   - F. The trail has in place a trail partnerships/collaboration/agreement with partners that have a demonstrated ability to support routine and long-term maintenance investment on the water trail.
     - a. The agreement includes a plan to meet the maintenance standards for the trail as adopted by the DNR and maintenance is conducted to these standards.
     - b. Controls are in place to discourage vandalism.
     - c. Periodic audits are scheduled to ensure standards are being met.
   - G. Trail information is promoted locally and as part of the State's marketing program.
   - H. A local marketing plan has been developed to promote the trail, types of water trail designations and descriptions, location tools, etc.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

Michigan's State Water Trail Designation Types

There are three types of state designated trails: Inland Water Trails, Great Lakes Water Trails and Motorized Water Trails. **An Inland Water Trail can be along any water systems (inland lakes, connected lakes and/or river systems, or rivers) that are not on the Great Lakes. A Great Lakes Water Trail is along the shore of any of Michigan's Great Lake shoreline including all connecting water bodies such as St. Mary's River, Lake St. Clair and the Detroit River.** A Motorized Water Trail can be on either inland waters or on the Great Lakes. All designated Water Trails should identify any segments that have barrier-free entry and exit access points.

Inland Water Trails, non-motorized

Non-motorized Inland Water Trail designees will provide users with information on the difficulty level, beginner, intermediate or advanced and expectations of amenities for paddlers for each segment of the water body as follows:

1. Beginner Trail Segments

A. Typical Development Goals
   a. Exposing the greatest number of new users to paddling and/or water trails.
   b. Appropriate for large groups, children and new water trail users.
   c. Trips can be tailored for short excursions or longer, but should provide options for those with less experience.
   d. Emphasis on communicating access, use of safety equipment, hazards, building skills and confidence of new trail users.
   e. Woody debris is important for stream ecosystem health and for the food chain, and care should be taken in considering removal/repositioning for water trail purposes. Users shall be aware that they will need to avoid these hazards, and should be aware that they may be present.
   f. Educational opportunities should be included, not only for skill development, but also environmental, conservation, and historical interpretation to enhance user experience.

B. User Expectations
   a. A predictable experience, with minimum exposure to hazards that is appropriate for new or beginner paddling skills.
   b. A readily enjoyable setting that will appeal to new paddlers.
   c. Hazards, access sites, rest area information, and wayfinding will be well-communicated by signage.
   d. Shorter length trips will be facilitated by having accessible and frequent access sites.
   e. Amenities are adequately spaced including rest areas, restrooms, drinking water and other amenities.
   f. Trail segments that are barrier free, meaning they provide accessible launches at both the put in and take out locations, should be identified.
   g. Motorized boats may be present.

C. Paddling Skills Needed
   a. New to basic paddling skills.

D. Access or Rest Area Spacing
   a. Launches, access sites and rest areas will vary by distance and conditions but on average an access site will be available every 1-2 hours of float time or 3-6 miles.

E. Lake, river and stream characteristics
   a. Slow or moderate flow streams in normal conditions (meaning no bank-full discharge or flood stage conditions).
   b. Small inland lakes will have little or no current, and normally possess limited wave action.
   c. Under normal conditions, there will be few obstacles and hazards, such as large woody debris (strainers) and low-head dams. With the inherent dangers of low-head dams, designating a stretch of river as a beginner segment should be discouraged, if not prohibited.
   d. Portage around obstacles is non-existent or minimal.

2. Intermediate Trail Segments

A. Typical Development Goals

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

a. Provide day-trip opportunities, and have potential for overnight, group and family experiences.
b. Provide longer and slightly more difficult experience than that of a beginner segment.
c. Access sites and amenities may be less developed and farther apart compared to beginner segment.

B. User Expectations
a. A slightly less predictable experience than a beginner segment which will require some boat control and intended for paddlers with some experience and stamina.
b. May have varied settings and natural vistas.
c. Dam hazards, access sites and wayfinding will be communicated by signage as needed.
d. Trip length could increase and rest areas may be less frequent when compared to a beginner segment.
e. Amenities may be more rustic than on a beginner segment.
f. Portages will be signed.
h. Trail segments that are barrier free, meaning they provide accessible launches at both the put in and take out locations, should be identified.
i. Motorized boats may be present.

C. Paddling skills needed
a. Basic boat control.
b. Forward and reverse strokes.
c. Basic self-recovery skills, such as tip-over.
d. Basic map reading or GPS skills.

D. Access or Rest Area Spacing
a. Launches, access sites and rest areas will vary by distance and conditions, but could be spaced as long as 2-4 hours of float time or 6-12 miles.

E. Lake, River and Stream Characteristics
a. Varies from narrow and sinuous to wider channel stretches
b. Some sandbars, rocks, riffles, strainers or mild rapids under normal conditions.
c. May require some portages.
d. Lakes may have expectation of moderate waves when windy, or moderate current.

3. Advanced Trail Segments

A. Typical Development Goals
a. Day trips and multiple day trips are possible.
b. Rustic launches may be more difficult for some users, including steep slopes.
c. Long portages may be present and may be signed.
d. Resource protection, conservation of habitat and experiential wilderness recreation may be key goals.

B. User Expectations
a. Advanced trail segments will be a more difficult experience than intermediate segments and is more suited to advanced paddlers and skills.
b. Paddler expects to manage risk and should possess self-rescue skills.
c. Some degree of solitude and expectations of scenic vistas with little evidence of built infrastructure (bridges, power lines, homes, etc.) may be present.
d. Segments may include stretches of whitewater rapids.
e. Expect varied settings and conditions.
f. Navigational aids may be infrequent on the river or large water bodies.
g. Launches, access sites and/or rest areas may be far apart and rustic.
h. Dam hazards and primary access sites are communicated by signage.
i. Cell phone coverage may be limited or non-existent.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

j. Trail segments that are barrier free, meaning they provide accessible launches at both the put in and take out locations, should be identified.
k. Motorized boats may be present.

C. Paddling skills needed
a. Good to excellent boat control.
b. Advanced tip over recovery skills.
c. Good endurance.
d. Navigational skills.
e. Ability to create a trip plan and provide information to someone who can contact authorities if overdue or in an emergency.

D. Access Spacing
a. Launches, access sites and rest areas will vary by distance and conditions, and access site location could exceed four hours of float time or 12+ miles.

E. Lake, river and stream characteristics
a. May include faster water, rapids, large lakes, and expansive wetland areas.
b. Lake segments may include long open-water crossings and may encounter motorized vessels. There is a potential for high waves, coupled with steep or rocky shorelines.
c. Streams may include moderate to high number of hazards, including rapids, logjams, strainers, dams and/or other obstacles.

Great Lakes Water Trails

Great Lakes Water Trail designees will provide users with information on expectations along the trail for each segment of the water trail as follows:

A. Typical Development Goals
a. Day trips and multiple day trips are possible.
b. Mixture of modern and rustic access sites, some may be more difficult including steep slopes.

B. User Expectations
a. Trail Users expect to manage risk and should possess self-rescue skills in open water.
b. Expect varied settings and conditions.
c. Navigational aids will be infrequent.
d. Access sites and/or rest areas may be far apart.
j. Trail segments that are barrier free, meaning they provide accessible launches at both the put in and take out locations, should be identified.

C. Skills needed
a. Excellent boat control.
b. Good endurance.
c. Advanced tip over, recovery and self-rescue.
d. Navigational skills and the ability and to understand and obtain weather and marine forecasts.
e. The need to create a trip plan and provide information to someone who can contact authorities if overdue or in an emergency.

D. Access Spacing
a. Access sites and rest areas will vary by distance and conditions, and could exceed four hours of travel time or 12+ miles.

E. Great Lakes characteristics
a. On the Great Lakes high winds and high waves can occur and the trail user should be prepared for cold temperatures, fog or other weather conditions.
b. Great Lakes segments can include long open-water crossings and may encounter large and small motorized vessels.
c. Access sites may be limited with steep or rocky shorelines.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

Motorized Water Trail
Motorized Water Trail designees will provide users with information and expectations of the trail and amenities for motorized water craft for each segment of the water body as follows:

A. Typical Development Goals
   a. Day trips and multiple day trips are possible
   b. Motorized access sites, such as marinas, re-fueling sites and recreational amenities, will be available at increment distances appropriate for motorized vessels.
   c. Mapping of access sites and amenities will create enjoyable motorized water trail experiences. Development of this experience and information for users should be a goal.

B. User Expectations
   a. Trail users expect to manage risk and possess self-rescue skills in open water.
   b. Dam hazards, motorized access sites and wayfinding signage is provided.
   c. Accessible features should be identified.
   d. Non-motorized boats and boats of various sizes and for various uses (not just trail users) may be present.

C. Skills Needed
   f. Navigational and boating safety skills and the ability and to understand and obtain weather and marine forecasts.
   g. The ability to create a trip plan to provide information to someone who can contact authorities if overdue or in an emergency.

D. Access Spacing
   b. Access sites will vary by distance and conditions, and could exceed four hours of travel time.

E. Trail Characteristics
   a. Trail can be around a lake or part of an interconnected lake systems that connect with navigable rivers.
   b. Lake segments may include long open-water crossings. There is a potential for high waves, coupled with steep or rocky shorelines.

Water Trails Designation Process

An organization(s) that desires to develop and manage a designated water trail, including the DNR, shall submit to the department an application that demonstrates its ability to provide the following:

1. **Describe the quality trail experience**
   A. Provide a written summary of the trail including trail designation type and segment experiences and length.
   B. Maps of river, river segments or water body, which includes all available access sites, rest areas, amenities, signage and launch type plus known static hazards such as dams.
   C. Name, photos and lists of access sites, launches, rest areas and signage. Launches, access sites and rest areas need to have adequate spacing as indicated in segment descriptions
   D. Plan for providing educational opportunities on natural and cultural heritage, conservation and health.
   E. Documentation of land-owner approval of public and privately owned access sites and rest areas.
   F. Trail segments that are barrier free, meaning they provide accessible launches at both the put in and take out locations should be noted. All barrier free amenities should be noted and described.
   G. Provide a plan for promoting safe trail use that respects the water, lands and private property including leave no trace principles.
2. **Provide clear information for users**

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

A. Standardized safety and wayfinding signage in place on the river or a written commitment to install it within one year of designation.
B. Provide adequate information (stewardship, safety, rules, etc.) in various formats, including electronic or printed (maps, websites, pamphlets, etc.).

3. **Demonstrate broad community support**
   A. Minutes of public meeting(s) held in the largest population center near or adjoining the river to obtain input and explain the value of the trail.
   B. Resolutions of support from the government entities adjoining the trail.
   C. List of partners involved with the trail, including those participating from the education, heritage, conservation, tourism, business, or health sectors.
4. **Provide a sustainable business plan that includes maintenance, marketing and emergencies**
   A. Provide written documentation of a sustainable business plan that includes goals for development, management, promotion, operation and maintenance plans.
   B. Documentation that the trail and amenities meet all local, state and federal land use plans and laws.
   C. Inventory of cultural and natural heritage assets, conservation concerns and explanation of how they are incorporated into the trail.
   D. Plan for providing educational opportunities on natural and cultural heritage, conservation and health.
   E. Provide documentation on existing trail partnerships/collaborations/agreements.
   F. A proposed Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) between the organizations committed to developing, operating and maintaining the trail.
   G. Provide the budget and proposed sources of funding for managing and maintaining the trail.
   H. Emergency planning and communication plan that will inform first responders, engage in their feedback and provide agencies with maps, launch sites, etc.
   I. Provide a viable marketing plan, including budget and source of funding.

Application Review and Designation Process:

1. **Review**
   A. The application shall be submitted to the DNR Water Trail Coordinator who will review the application and do any further research such as inspect the water body, to determine if it meets the criteria for designation.
   B. If it meets criteria, DNR Water Trail Coordinator shall input the water trail information on the State's Trail Proposal System. This system will allow for each DNR department to review and make comments on the proposed trail. The State Trail Coordinator will have final approval of such a proposal.
   C. If criteria are not met or the proposal not approved, the DNR Water Trail Coordinator shall provide feedback to the applicant organization and/or committee.
2. **Designation**
   If the trail proposal is approved, designation of a state designated water trail is announced as follows:
   A. Designation will consist of a letter from the DNR State Trail Coordinator and a Memorandum of Agreement (MOA) between the DNR and the applicant. The MOA shall be written for a period of time no shorter than 10 years.
   B. A DNR press release is done to announce the designation.
   C. DNR incorporates the trail into its maps and marketing materials.
   D. State Designated Water Trail branding/signage are placed in appropriate locations.

DRAFT STATE DESIGNATION CRITERIA (CONTINUED)

Auditing a State Designated Water Trail:
The designee shall perform an audit on the trail, per the DNR water trail audit process, bi-annually and as weather conditions warrant, to determine if the trail continues to meet the Designated Water Trail Criteria for being a state designated water trail, including the maintenance standards established for water trails and revise any segment descriptions as appropriate in marketing materials.

If the trail does not meet the criteria and standards for being a State Designated Water Trail, the DNR will work with the designee on the MOA to assist them in meeting the criteria and standards.

The designee must promptly address identified shortfalls in operations and maintenance and safety to meet the criteria and standards.

If the designee fails to address known operations and maintenance issues per the State Designated Water Trail criteria, then the DNR State Trail Coordinator will prepare to remove the designation status of the water trail per State process.

If the water trail is removed from state designation, the designated water trail shall be removed from all marketing information and all designated water trail identifiers along the trail shall be removed by the designee.

WATER TRAIL LIABILITY RESEARCH

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December 4, 2014

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Re: Water Trail Liability (NSGLC-14-04-06)

This product was prepared by the National Sea Grant Law Center under award number NA14OAR4170065 from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

Dear Mary,

Thank you for your advisory request regarding potential liability issues to local governments and private landowners participating in Michigan's Great Lakes Water Trails. After completing my research, it appears that local governments and landowners listed on the water trail would be protected from liability in most instances. The information below is intended as advisory research only and does not constitute legal representation of Michigan Sea Grant or its constituents. It represents our interpretations of the relevant laws and regulations.

Water trails are similar to hiking trails. According to the National Park Service, "[w]ater trails are recreational routes on waterways with a network of public access points supported by broad-based community partnerships." Fishermen, hikers, or other recreational users may also use the trail to find recreation opportunities.

The *Michigan's Great Lakes Water Trails* website, www.michiganwatertrails.org, provides water trail information online for nearly every mile of Michigan's Great Lakes shoreline, as well as for dozens of connecting inland waterways. Visitors to the site can access maps with information about facilities and access points, along with informational videos, shoreline photos, and a trip planner. Some regions have also included information on local services, attractions, and amenities for paddlers, such as places to eat, shop, sleep, and rent or purchase paddling gear. The website is hosted by a non-profit organization and website content is added by regional planning organizations, local governments, and volunteers. The project is funded, in part, by the Michigan Coastal Zone Management Program, Department of Environmental Quality Office of the Great Lakes, and NOAA.

As a result of the water trail initiative, Michigan Sea Grant has received questions from local governments and private landowners inquiring about potential liability issues for including their sites on the water trail. As I understand it, the frequently asked questions fall into two categories: 1) does allowing water trail users on public or private property expose local governments or private landowners to liability?; and 2) if local governments or landowners improve a natural sandy beach launch site to add floating docks, signage, lockers or other amenities, what effect will that have on liability?

Liability for Including Sites on the Water Trail

Most likely, any liability claim related to injuries on the water trail would be based in negligence. Common law, which is law developed by courts as opposed to legislatures, defines negligence as "…conduct which falls below the standard established by law for the protection of others against unreasonable risk of harm ..."[1] To prove negligence, a plaintiff must prove three elements: 1) that the defendant owed a duty to the plaintiff; 2) the defendant breached that duty; and 3) the breach proximately caused injury to the plaintiff.

The "duty of care" owed to a plaintiff depends on the status of the person on the land at the time of the accident. Visitors to access points on the water trail would be considered "invitees," which are people who enter onto land for the purpose for which the land is held open to the public.[2] All landowners have a duty to conduct their activities with "reasonable care" for an invitee's safety and to protect invitees from conditions that the invitee is unlikely to discover.[3] "Reasonable care" is the care with which a reasonable person or entity in the same position would recognize as necessary to prevent the unreasonable risk of harm to another.[4]

[1] Restatement (Second) of Torts § 282 (1965).
[2] *Id.* § 332.
[3] *Id.* § 341A.
[4] *Id.* § 298.

Landowners generally do not have a duty to protect invitees from obvious dangers posed by water, such as the risk of drowning or diving into obviously shallow water. These general common law rules, however, may be abrogated by state legislation.

In Michigan, liability for including sites on water trails may be limited by two statutes. For private landowners, the state's Recreational Use Act serves to limit liability for those who open their land to the public for recreational use. For state agencies and local governments, they may be immune from suit under the Recreational Use Act and/or the Governmental Tort Liability Act.

MI Recreational Use Act

As mentioned above, the Recreational Use Act (RUA) provides immunity for both private and public landowners. Michigan's Recreational Use Act states

> *…a cause of action shall not arise for injuries to a person who is on the land of another without paying to the owner, tenant, or lessee of the land a valuable consideration for the purpose of fishing, hunting, trapping, camping, hiking, sightseeing, motorcycling, snowmobiling, or any other outdoor recreational use or trail use, with or without permission, against the owner, tenant, or lessee of the land unless the injuries were caused by the gross negligence or willful and wanton misconduct of the owner, tenant, or lessee.*[5]

Further, the RUA specifically provides immunity from injuries arising out of persons entering or exiting from a Michigan trailway, unless the injuries were caused by gross negligence or willful and wanton misconduct. That subsection of the RUA specifies that the trail "may be located on land of any size including, but not limited to, urban, suburban, subdivided, and rural land."[6]

Courts have held that "the [RUA] applies to a public invitee who uses a public recreation area without paying a valuable consideration for such use."[7] Therefore, local governments or landowners who allow water trail users to use their land should be protected under the statute, unless they charge "valuable consideration" for the use of the land or engage in "gross negligence or willful and wanton misconduct."[8]

Courts in Michigan have issued rulings on when the payment of fees constitutes "valuable consideration." Simply paying to enter a park does not remove the protection of the RUA. For instance, a court ruled that a park patron's payment for a permit when entering a park would not be enough to remove protection under the RUA, because the park permit fee applied only to motor vehicles and therefore was a fee for the use of park roads and parking lots and not valuable consideration for use of the park.[9] One court noted that "'[v]aluable consideration' within the meaning of Recreational Land Users Act … must be in form of specific fee for use of

[5] MICH. COMP. LAWS § 324.73301(1).
[6] MICH. COMP. LAWS § 324.73301(2).
[7] Estate of Matthews by Matthews v. City of Detroit, 367 N.W.2d 440, 443 (1985).
[8] MICH. COMP. LAWS § 324.73301(2).
[9] Schiller v. Muskegon State Park 395 N.W.2d 75 (1986).

particular recreational area in question."[10] So, if a local government charges for the use of specific facilities, such as a launch site, the RUA immunity may not apply.

Whether conduct qualifies as "gross negligence" or "willful or wanton misconduct" would be a fact-specific inquiry. Gross negligence has been defined as reckless conduct that shows substantial lack of concern for whether injury results.[11] An allegation of gross negligence must be for actions of subsequent negligence—or an action that happens after a user is on the property. It would not apply to actions that defendants should have taken before users enter their land, such as posting signs.[12] Willful and wanton conduct is generally either intent to harm or indifference as to whether harm will occur.[13] Essentially, liability under the RUA would only occur if conduct is willful or malicious or when consideration is paid in return for the use of recreational facilities. Therefore, when operating and maintaining sites listed on the water trail, landowners should strive to act with "reasonable care."[14]

Government immunity

If local governments are immune under the RUA, courts will generally not examine whether a broader governmental immunity provision applies. In some cases, however, the RUA may not be applicable and the court would turn to considering liability under Michigan's Governmental Tort Liability Act.[15] Some courts have examined the government's immunity under both acts.[16] Below is an examination of how governmental immunity might be applied to recreational liability cases.

Under the doctrine of sovereign immunity, a governmental entity may only be sued if the government has given its consent. Michigan's Governmental Tort Liability Act preserves this sovereign immunity with certain exceptions. "Except as otherwise provided in this act, a governmental agency is immune from tort liability if the governmental agency is engaged in the exercise or discharge of a governmental function …."[17] The immunity extends to local governments.[18] The key question with respect to water trails is, therefore, whether the operation and maintenance of sites listed on the water trail is a government function and whether any exceptions to the government function immunity apply.

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[10] Syrowik v. City of Detroit, 326 N.W.2d 507 (1982).
[11] Kruse v. Iron Range Snowmobile Club, 890 F.Supp. 681 (W.D. Mich. 1995).
[12] McNeal v. Dep't of Natural Res., 364 N.W.2d 768, 771-72 (1985).
[13] James v. Leco Corp., 427 N.W.2d 920 (1988).
[14] As stated above, "reasonable care" is the care with which a reasonable person or entity in the same position would recognize as necessary to prevent the act from creating an unreasonable risk of harm to another. Restatement (Second) of Torts § 298.
[15] Ballard v. Ypsilanti Twp., 549 N.W.2d 885, 887 (1996).
[16] Feliciano v. Dep't of Natural Res., 293 N.W.2d 732, 736 (1980); *McNeal*, *supra* note 12.
[17] MICH. COMP. LAWS § 691.1407.
[18] "Government agency" is defined as the state "or a political subdivision," and the definition of "political subdivision" includes municipal corporations and counties. *Id*. at § 691.1401.

"Governmental function" is defined as an activity that is expressly or impliedly mandated or authorized by constitution, statute, local charter or ordinance, or other law.[19] The determination of whether an activity is a government function is a fact-specific question that can only be answered by a court. Michigan courts have ruled on whether or not the operation of parks is a government function. Two appellate courts have found that governmental immunity applies where government agencies have provided public access to public areas that have not been developed for intensive use.[20] This would include large rustic parks, forests, and other lands left substantially in their natural condition, and public waters other than supervised beach areas.[21] The courts reasoned that allowing access to such areas is "uniquely governmental" and within the category of government function.[22] Therefore, it appears that areas not developed for intensive use would fall within governmental immunity. The section below, "Liability from Improvements," will discuss whether improvements, such as signage or facilities, would remove governmental immunity.

There are certain exceptions to governmental function immunity, however. Namely, immunity does not apply in instances in which governments perform a proprietary function.[23] Proprietary functions are acts conducted primarily for the purpose of producing a profit and are not normally supported by taxes or fees.[24] For example, a plaintiff brought suit for an injury sustained while roller skating at an outdoor rink located in a municipal park. The municipal authority charged admission and offered skate rentals. The court held that this was a proprietary function, and not a governmental function, and was therefore not protected from liability under the immunity statute. If local governments rent kayaks or other equipment for a profit, governmental immunity may not apply.

Liability from Improvements

The second part of your request related to whether the "improvement" of a natural sandy beach launch site to one with floating docks, signage, lockers or other amenities will affect liability. First, let's look at the effect improvements might have under the RUA. The RUA does not provide for increased liability with the addition of improvements. So, as long as the injuries are not caused by gross negligence or willful and wanton misconduct, the owner, tenant or lessee of the land would be immune from liability. As noted above, an allegation of gross negligence must be for actions of subsequent negligence—or actions that happen after a user is on the property. It would not apply to actions that defendants should have taken before users enter their land, such as posting signs.[25] Essentially, as noted above, the landowners should act reasonably by maintaining any signs or facilities that they do provide.

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[19] *Id*. at § 691.1401(b).
[20] *McNeal*, *supra* note 12; *Feliciano*, *supra* note 16.
[21] *Id*.
[22] *Id*.
[23] MICH. COMP. LAWS § 691.1413.
[24] *Id*. at § 691.1413.
[25] *See* McNeal, *supra* note 12 at 771-772.

Now, let's look at how improvements might affect government immunity under the Michigan Governmental Tort Liability Act. As mentioned above, Michigan appellate courts have found that governmental immunity may not protect developed recreational areas. However, this does not mean the land may not be improved in any way. For example, in *McNeal v. DNR*, the court found that a recreation area was still in its natural condition, even though there was a parking lot and several nearby warning signs.[26] However, facilities that operate for profit, such as a boat ramp that charges for use, may not be immune from liability under the proprietary function exception. The court in *McNeal* also ruled that the fact that an area adjacent to the park was leased to a private company did not convert the entire site into a proprietary function.

Conclusion

Considering the general provisions discussed above, it appears that private and public landowners would be protected in most instances from liability by either the Recreational Use Act or government immunity. To maintain their immunity, landowners should act reasonably by maintaining facilities or equipment. And, as noted above, signage would not be required to protect landowners for liability; however, appropriate signage regarding potentially dangerous areas could be useful. Landowners or governments should consult with local private counsel regarding how their activities may affect the applicability of the RUA. I hope you find this information useful. Please contact me at anytime if you have additional questions.

Sincerely,

Terra Bowling
National Sea Grant Law Center

[26] *See* McNeal, *supra* note 12.

EMERGENCY TRESPASS RESEARCH

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Re: Emergency Trespass on Water Trails (NSGLC-16-04-08)

This product was prepared by the National Sea Grant Law Center under award number NA140AR4170065 from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

Dear Mary:

In 2014, the NSGLC performed research for Michigan Sea Grant on whether local governments and landowners participating in Michigan's Great Lakes Water Trails would be subject to liability.[1] Recently, a Michigan Sea Grant constituent has asked whether water trail users are liable for trespass onto private property in emergency situations. In answering this question, we will look at the public's right to use the waters, the landowners' right to exclude the public from private property, the law of trespass, and any exceptions for trespass. The following information is intended as advisory research only and does not constitute legal representation of Michigan Sea Grant or its constituents by the National Sea Grant Law Center. It represents our interpretation of the relevant laws and cases.

Public Trust Rights

In Michigan, the public has the right to use the state's navigable waters up to the ordinary high water mark.[2] The state holds these lands "for the benefit of the public in the

[1] National Sea Grant Law Center, *Water Trail Liability* (Dec. 4, 2014). *Available at* http://nsglc.olemiss.edu/Advisory/mi-watertrail.pdf.
[2] *Glass v. Goeckel*, 703 N.W. 2d 58, 69 (Mich. 2005).

enjoyment of the ancient rights of navigation, fowling, and fishing" and to protect public resources.[3] The public may not use land abutting the navigable waters above the ordinary high water mark. These are private lands, and, in most instances, use of these lands by water trail users would be trespass.

Trespass

Michigan has three potential causes of action related to trespass: civil trespass, criminal trespass, and recreational trespass, a more specific type of trespass created by the legislature. First, a landowner may bring a civil trespass action against a trespasser. At common law, a trespasser is a person who enters onto another's land without consent.[4] Any person who entered private property without permission would be liable to the landowner for nominal damages for that trespass.[5] This means that any water trail user who trespassed onto private property may be required to pay the landowner a small amount of money for that trespass. In instances in which the trespass results in property damage, the trespasser must pay additional damages based on the injury to the land.[6] For example, if a water trail user broke a fence climbing onto private property, he would be required to pay to return the fence to its original state.

A criminal trespass charge may be brought when one of the following occurs: 1) a person enters the lands or premises of another after having been forbidden to do so by the owner; 2) a person remains on the land or premises after being notified to leave; and 3) a person enters fenced or posted farm property of another person without the consent of the owner.[7] In Michigan, conviction for criminal trespass could result in a misdemeanor punishable by imprisonment for not more than 30 days or by a fine of not more than $250.00, or both.[8] This means that if a water trail user is prevented or warned not to use private property and he does so anyway, he could be cited for criminal trespass.

The Recreational Trespass statute within the Natural Resources and Protection Act, MCL § 324.73102, defines trespass in the same manner as criminal trespass; however, it provides higher penalties for certain types of trespass during recreational activities. The statute states that an individual may not enter onto private property for recreational activities without consent of the property owner when: 1) a property is fenced or enclosed; 2) when there is a sign that conspicuously prohibits trespassing; or 3) when a person has previously been forbidden to enter a property.[9] Unlike the criminal trespass provisions, the statute provides certain exceptions to trespass, including an exception for a person retrieving a hunting dog. Another exception in the statute provides that fisherman engaged in a recreational activity may enter onto posted property for the purpose of avoiding a natural or artificial hazard or an obstruction in the water.

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[3] *State v. Lake St. Clair Fishing & Shooting Club*, 87 N.W. 117, 125 (Mich. 1901).
[4] *Giddings v. Rogalewski*, 158 N.W. 951, 953 (Mich. 1916).
[5] *Id.*
[6] *Kratze v. Indep. Order of Oddfellows, Garden City Lodge No. 11*, 500 N.W.2d 115, 122 (Mich.1993).
[7] MICH. COMP. LAWS ANN. § 750.552.
[8] *Id.*
[9] MICH. COMP. LAWS ANN. § 324.73102.

> *On fenced or posted property or farm property, a fisherman wading or floating a navigable public stream may, without written or oral consent, enter upon property within the clearly defined banks of the stream or, without damaging farm products, walk a route as closely proximate to the clearly defined bank as possible when necessary to avoid a natural or artificial hazard or obstruction, including, but not limited to, a dam, deep hole, or a fence or other exercise of ownership by the riparian owner.*[10]

Under the above laws, a water trail user who trespasses onto land of another could potentially be liable for trespass, unless he meets the exceptions provided for in the Recreational Trespass statute.

Emergency Circumstances
Some jurisdictions allow a defense to trespass. Under the concept of public necessity, trespass may be excused if the trespass was necessary to protect the public from danger or from an emergency situation. An example might be a person running onto private property to prevent a fire or to help in a natural disaster. When using this defense, the trespasser's actions must be reasonable under the circumstances. Another defense is private necessity. In this instance, trespass may be excused if it was necessary to protect the trespasser or his property from danger in a temporary, emergency situation. An example might be a person running onto another's property to escape a wild animal.

I was unable to find any cases in Michigan that used the public or private necessity defense. At this point, it would be safe to assume that trespass, even for emergency purposes, could result in citation for criminal or, more likely, recreational trespass. In addition, the water trail user would incur liability for any damage that is done to the property under common law trespass.

Thank you for bringing this request to the National Sea Grant Law Center. I hope this information is helpful. If you have any further questions or would like additional information, please let me know.

Sincerely,

Terra Bowling

Terra Bowling
Sr. Research Counsel
National Sea Grant Law Center

[10] *Id.*§ 324.73102 (3); *See People v. Gatski*, 677 N.W.2d 357, 361 (Mich. 2004).

Lake Michigan Water Trail.