



UPPER GRAND RIVER WATER TRAIL DEVELOPMENT PLAN

May 2017



April 2017

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The Upper Grand River Water Trail Planning Committee, chaired by Geoffrey W. Snyder, and others participating in the planning process include the City of Jackson Parks, Recreation & Grounds; Eaton Rapids Paddle Club; Grand River Environmental Action Team; Jackson City Council; Jackson County Board of Commissioners; Jackson County Conservation District; Jackson County Drain Commissioner's Office; Jackson County Health Department; Jackson County MS4 Communities; Jackson County Parks Commission; Land Information Access Association; Legacy Land Conservancy; Max Manufacturing, Middle Grand Organization of Watersheds; Napoleon Township; Potawatomi Resource Conservation & Development Council; Quiet World Sports; Region 2 Planning Commission; Spring Arbor Township; Summit Township; Tompkins Township; Upper Grand River Watershed Alliance; and the Washtanong Conservancy.

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Plan Prepared by



UPPER GRAND RIVER WATER TRAIL Development Plan



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CHAPTER ONE – INTRODUCTION

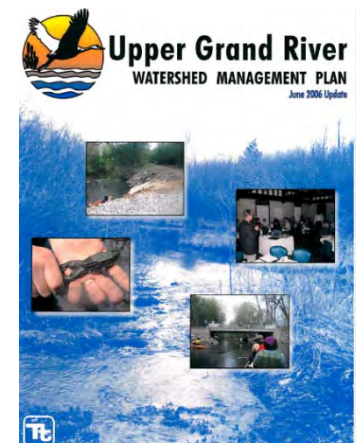
PLAN PURPOSE

Efforts to protect and restore the Upper Grand River date back to the 1960's. In 1966, the Grand River Watershed Council was established; just the second such organization formed under Michigan's Local River Management Act. The Watershed Council was instrumental in establishing the comprehensive Grand River Water Quality Monitoring Network. In addition, the Council developed a series of canoeing maps of the Grand River and its major tributaries.

In the 1980s, municipal agencies and local organizations, including the Jackson Jaycees, Jackson County 1990 and the Grand River Development and Ecology Task Force made concerted efforts to plan for and protect resources in the Upper Grand River Watershed. These efforts culminated in 1990 with the inaugural *Grand River Expedition*. Approximately 55 adventurous people paddled 230 miles of the river, documenting its current conditions and noting opportunities for improvement. Along the way, the expedition helped to foster greater awareness of and responsibility for the river. The success of the expedition led to the creation of the Grand River Environmental Action Team (GREAT). GREAT continues to oversee annual river cleanup activities as well as monthly paddle outings. These activities continue to help raise awareness about the Grand River and its surrounding environment.

In the late 1990's, the Grand River Inter-County Drainage Board (GRICDB) initiated studies on the Grand and Portage Rivers to identify water quality problem areas, sedimentation and other geomorphologic changes that resulted in log jams and channel restrictions. In 2001, the City of Jackson "daylighted" a section of the Grand River in downtown Jackson, removing the cement cap that had been built over the river, making the river visible and accessible again. Around the same time, the Jackson County Regional Trailway Committee developed a countywide vision for connecting existing and proposed recreational paths in Jackson County and surrounding counties. These planning and resource protection efforts culminated in the development of a new county-wide comprehensive master plan, which provided priorities and guidance for development, land use and natural resource protection. At the same time, in response to new state and federal regulations, eight communities within the greater Jackson area worked together to develop stormwater pollution prevention plans and eliminate combined sewer and sanitary sewer overflows of untreated sewage into the river.

To more fully realize the river's potential, the GRICDB convened a collection of watershed organizations, community stakeholders and municipal officials, dubbed the Upper Grand River Watershed Planning Initiative Steering Committee. In 2003, the steering committee worked to develop the first Upper Grand River Watershed Plan and later to establish the Upper Grand River Watershed Alliance. The Watershed Plan recognizes the importance of river-based recreation in helping to foster public and individual stewardship of the Upper Grand River.



The Plan outlined 16 major goals for the watershed, including:

- *Restore, develop, and promote the Upper Grand River as a recreational asset through development of river corridor and canoe trail systems.*

A 2006 update to the Watershed Plan recommends the following actions:

- *R5 (1) Recreation Assessment: Examine the river and stream corridors and construct additional access sites, river trails and observation decks to improve walking, fishing and observation opportunities.*
- *R5 (2) Add at least one canoe landing.*

These goals mirror recommendations included within the 2000-2015 Jackson Community Comprehensive Plan, the Jackson County Regional Trailways' Study of 2002, the 2015 City of Jackson and Jackson County Joint Recreation Plan and the 2011 Michigan Department of Natural Resources (DNR) Fishery's Division Grand River Fisheries Assessment.

Transformative efforts to improve the river continue to move forward. In 2016, in an effort to return the "rapids" to Eaton Rapids, local officials and community advocates completed a 6-year effort to remove the west low-head sanitary dam adjacent to the downtown area. In an effort to continue implementation of the Watershed Plan, and noting the popularity of local paddle outings, the increasing number of paddlers on the river each year, the development of water trails across Michigan, the economic benefits a water trail could offer to communities such as Jackson, Michigan Center, and Eaton Rapids, representatives from the Upper Grand River Watershed Alliance, GREAT, the Jackson County MS4 Communities and others came together to develop this Water Trail Plan for the Upper Grand River.

Shortly after the effort to develop a water trail plan for the Upper Grand River kick-off, the DNR began to convene stakeholders from throughout the Grand River Watershed to begin planning a coordinated water trail for the entire length of the Grand River. This Development Plan is intended to provide the framework for the development of the Upper Grand River, or "headwaters" section of the larger trail network.

GOALS AND OBJECTIVES

The goal of the Upper Grand River Water Trail Development Plan is to outline the activities, process and framework to establish a water trail along the Upper Grand River. The resulting efforts of this Plan will seek to improve public access to the Upper Grand River, complement ongoing conservation and environmental initiatives along the river, raise awareness of the unique and valuable natural resources within the river corridor, provide a link to downtown Jackson, Michigan Center, and Eaton Rapids and provide for a safe and responsible recreational water trail.

ASSUMPTIONS

Throughout the planning process, community stakeholders, public officials, and citizens throughout the study area worked to develop and refine a series of *assumptions* for the water trail. The assumptions summarize the specific goals and expectations for the water trail and ultimately establish the benchmarks for success of the water trail.

- *The water trail should balance safe recreation with ongoing conservation and restoration efforts.*
- *The river supports paddling, fishing, and boating.*
- *The water trail complements and is integrated with surrounding land-based trails.*
- *The public has points of access to the river.*
- *The water trail will help leverage economic development in urban areas, especially in downtown Jackson, Michigan Center and Eaton Rapids.*
- *The river will continue to be managed and maintained through inter-jurisdictional public, private and non-profit partnerships.*
- *Paddlers will be encouraged to respect private property along the water trail.*
- *The Upper Grand Water Trail is part of a larger network of water trails on the Grand River that will combine to make the longest inland water trail in Michigan.*

WHAT IS A WATER TRAIL?

A water trail is a designated route on a navigable waterway such as a river, lake, bay or canal that is designed, implemented and managed to foster educational and recreational experiences for the user. Water trails are intended primarily for non-motorized uses such as kayaking, canoeing and stand-up paddle-boarding. However, in some circumstances water trails may be used by wind-powered vessels (e.g., sailboat, windsurfing) or motorboats.

Water trails can be classified by experience (e.g., urban, natural, historic, industrial) or by skill level (e.g., beginner, intermediate, advanced). For some water trails, experience classifications may vary from one section of the trail to another. In addition, skill-level classifications can vary depending upon weather, water conditions and impediments (e.g., woody debris, concrete). The quality of trail assets such as access points, maps, signage and facilities can impact the use and success of a water trail. Furthermore, the proximity to nearby amenities (e.g., hotels, camping, restaurants) can also impact the use and success of a water trail.



Photo: Jim Seitz

The Grand River

From its headwaters in Hillsdale County to the open waters of Lake Michigan, the Grand River meanders some 262 miles, making it the longest river in Michigan. Due to its length, portions of the river have been broken down into designated planning areas, commonly referred to as the Upper, Middle and Lower sections of the Grand River.

Upper Grand River Watershed

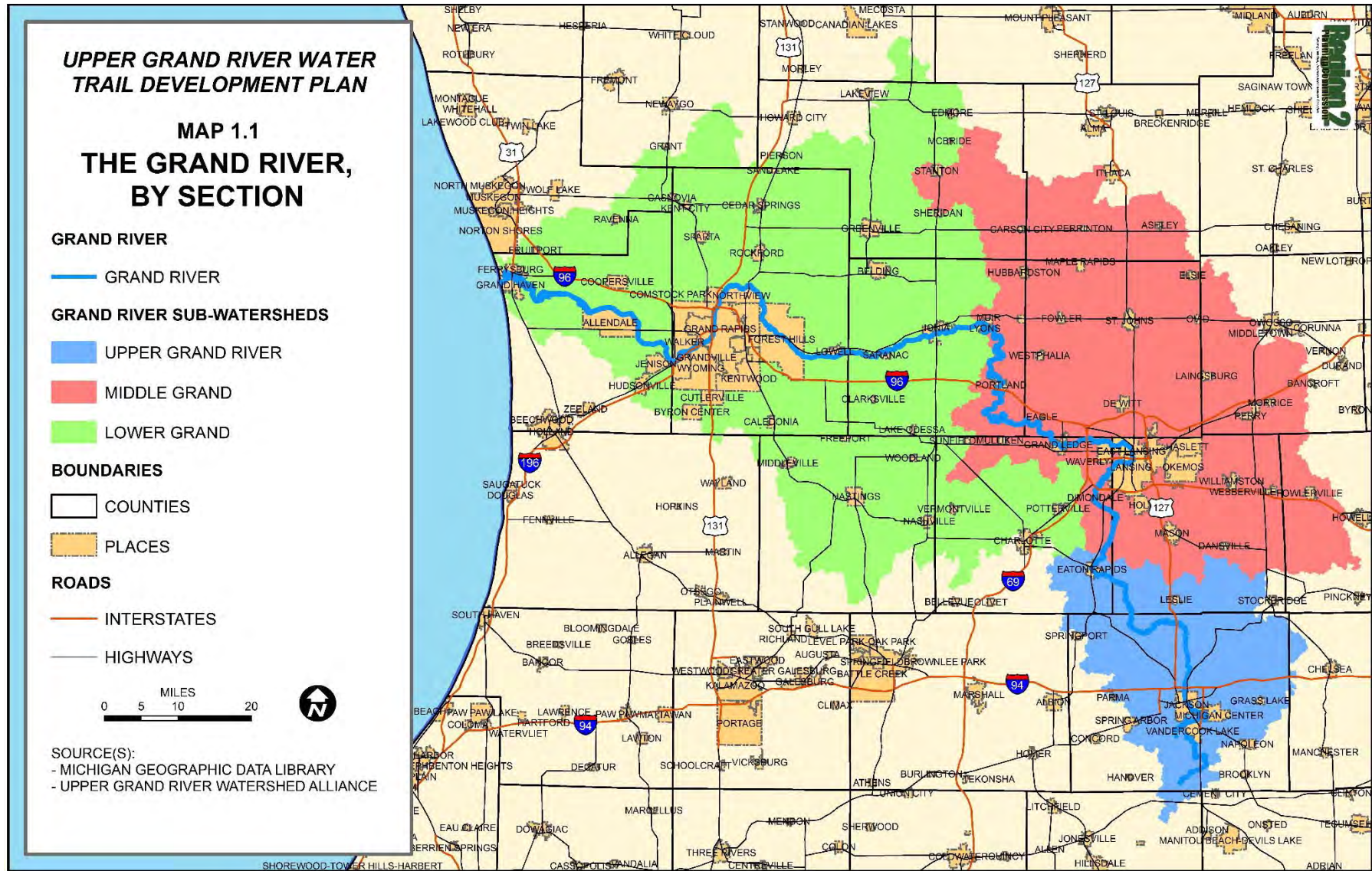
The Upper Grand River is part of the Upper Grand River Watershed, which encompasses most of Jackson County and portions of the surrounding counties. The watershed is primarily dominated by farms, woodlands, small lakes and wetlands. The Upper Grand River Watershed is located in the southern portion of the greater Grand River Watershed, which is the state's second-largest river basin. The Grand River Watershed encompasses approximately 5,575 square miles and drains all or portions of 19 counties. This area also comprises 13% of the entire Lake Michigan drainage basin. More than 1.5 million people live within the Grand River watershed and thousands more visit and use the river each year. Map 1.3 shows the location of the Upper Grand River Watershed and sub-basins.

STUDY AREA

Located in the south-central portion of Michigan's Lower Peninsula, the Upper Grand River is primarily located in Jackson County. However, the headwaters of the Upper Grand River begin just over the county line in Hillsdale County. From its headwaters at Grand Lake, the Upper Grand River flows for approximately 70 miles to the City of Eaton Rapids, where it links with the Middle Grand River. From there, the Grand River flows another 176 miles (through the Lower Grand River) before ultimately draining into Lake Michigan at Grand Haven. Map 1.1 illustrates the three sections of the Grand River.

The primary water trail for the Upper Grand River outlined in this plan begins at Vandercook Lake County Park. From there, the proposed water trail would flow west through Browns and Williams Lakes before turning north for approximately 51 miles until reaching the City of Eaton Rapids. A short 2.5 mile spur of the river, commonly referred to as the "North Branch", meanders from the proposed 5th Street canoe/kayak livery to the main stem of the river at the High Street Bridge.

This plan also outlines the development of a water trail on what's commonly referred to as the "Chain of Lakes." The seven-mile long Chain of Lakes includes: Center, Price, Little Olcott, Olcott, Big Wolf, and Little Wolf Lakes. This plan also outlines a third water trail along the Portage River, which links to the Grand River north of the City of Jackson. From there, the water trail would travel approximately 10.9 miles east to Portage Lake. Map 1.2 illustrates the location of the three water trail segments.



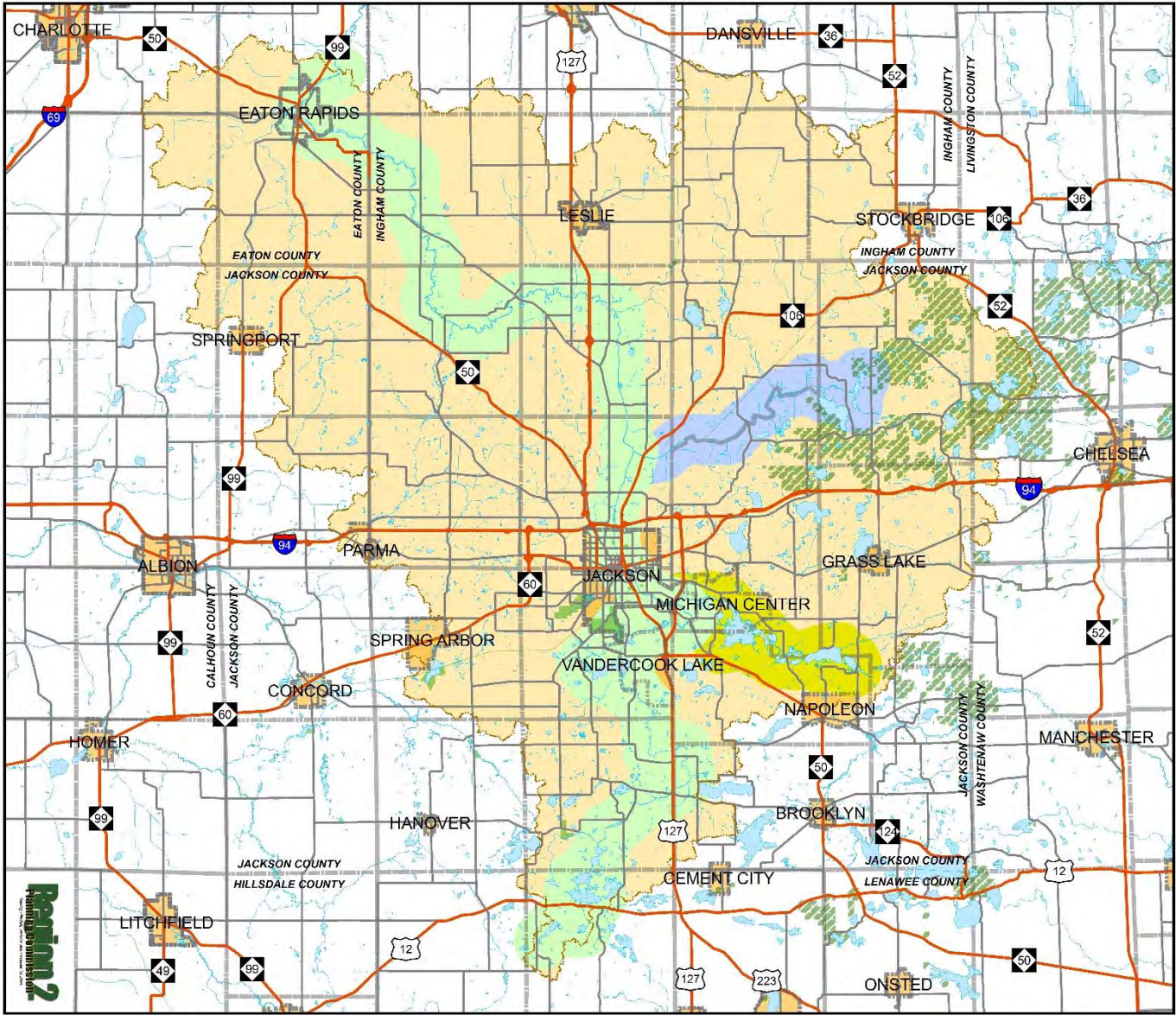
**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**

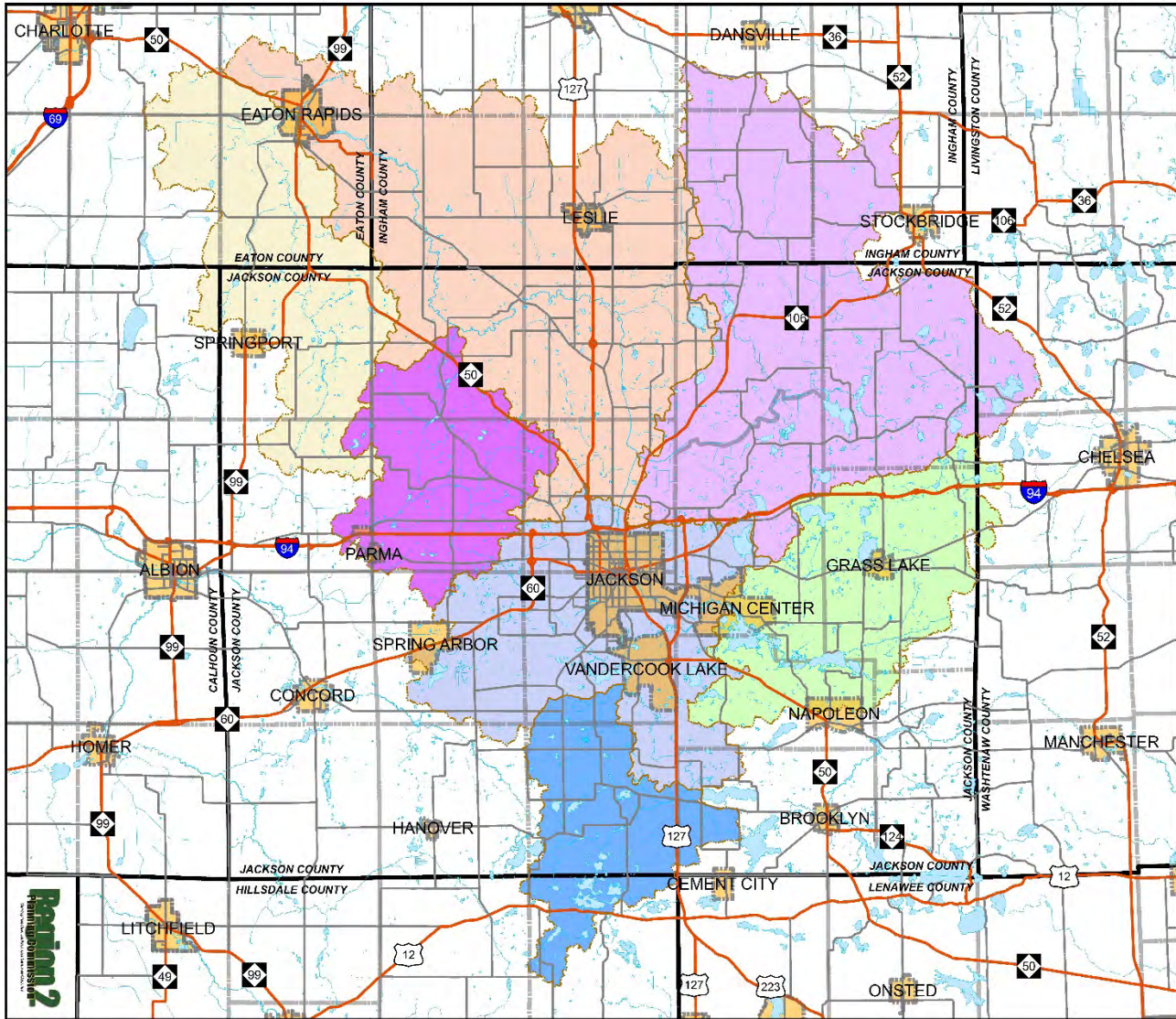
**MAP 1.2
PROPOSED
WATER TRAILS**

WATER TRAILS

- UPPER GRAND RIVER
- CHAIN OF LAKES
- PORTAGE RIVER

SOURCE(S):
 - MICHIGAN GEOGRAPHIC
 DATA LIBRARY
 - UPPER GRAND RIVER
 WATERSHED ALLIANCE





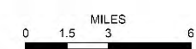
**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**

**MAP 1.3
GRAND RIVER
WATERSHED**

WATERSHED SUB-BASINS

- HEADWATERS
- URBANIZED
- CENTER, GRASS, & WOLF LAKES
- PORTAGE RIVER
- SANDSTONE CREEK
- UPPER GRAND RIVER
- SPRING BROOK

SOURCE(S):
 - MICHIGAN GEOGRAPHIC
 DATA LIBRARY
 - UPPER GRAND RIVER
 WATERSHED ALLIANCE



PHYSICAL CHARACTERISTICS OF THE RIVER

The Upper Grand River has a relatively stable stream flow, largely due to the region's abundant wetlands and lakes that provide a steady release of groundwater into the river. However, like most rivers in Michigan, many portions of the Upper Grand River are subject to seasonal flow patterns — high flow patterns in the spring and fall, and low flow patterns in late summer and winter.

Due to channelization and other drainage practices, the Portage River, which enters the main stem of the Grand River downstream of the City of Jackson, has unstable seasonal flow patterns and experiences seasonal spring flooding.

In many parts of the Upper Grand River, there is abundant woody debris which helps stabilize river banks and provide fish habitat, but also contributes to log jams, difficult or unsafe paddling conditions, and limited access.

Paddling Conditions & Experiences

Upper Grand River. Near the headwaters, the river may be narrow enough to touch each bank while reaching out from your boat. By the time you reach Eaton Rapids, the river widens to over 200 feet. Flow in the Upper Grand River is slow and most of the Upper Grand River is easy to paddle. The Upper Grand River offers numerous opportunities to experience peace and quiet as well as wildlife as it flows past miles of forest, scenic farmland and large wetlands. Paddlers may experience log jams and there are some dams that require portages. At Vandercook Lake, Michigan Center, Jackson, Onondaga and Eaton Rapids, paddlers can get off the water, stretch their legs and enjoy a meal at a local restaurant or brew-pub. Portions of the river in Jackson also provide a glimpse of the City's industrial history as a regional rail hub and a key player in the automobile and steel fabrication industries. Paddlers should be aware that passage under the railroad-trestle in downtown Jackson may be difficult or impassible when water levels are high.

Chain of Lakes. The Chain of Lakes includes narrow river sections and wide-open lakes characterized by both natural shoreline and areas of beautiful homes. The Chain of Lakes is suitable for beginner paddlers. Moderate to heavy boat traffic or heavy winds may offer seasonal challenges when crossing the lakes, but staying near the shoreline can help keep this an easy paddle. The intrepid paddler may wish to explore portions of Willow Creek and the surrounding wetlands which enters the Chain of Lakes in the northeast corner of Big Wolf Lake.

Portage River. The Portage River is the largest tributary to the Upper Grand River and much of it was dredged and straightened in the early 1900's. Despite this, the river offers a near wilderness experience. The river flows through an area dominated by agricultural lands, but from the water most of the view is of forest and wetlands. Paddlers on the river are likely to experience a trip with plenty of opportunity to see deer, herons and other wildlife as well as very few other paddlers. At lower levels, the river requires paddlers to negotiate around or through logjams. Due to the technical skill required and limited cell-phone coverage, the Portage River is recommended for intermediate to advanced paddlers.

Dams

There are several dams on the Upper Grand River that provide physical barriers to paddlers:

Headwater Region. Along the main stem of the Upper Grand River, there are dams on Crystal Lake, Lake Le Ann, and Mirror Lake. The dams were primarily erected in the early 1960s to help maintain lake levels.

Liberty Mill Dam. The Liberty Mill Dam was first constructed in 1848 to power a grain mill. Over time, the dam was repurposed to produce electricity. Today, the dam serves only to maintain the level of the Liberty Mill Pond.

5th Street Dam. The 5th Street Dam is primarily used to maintain the lake level of Center Lake at Michigan Center.

Smithville Dam. The Smithville Dam is located In Hamlin Township.

State Street Dam. The State Street Dam is located just south of Downtown Eaton Rapids

Eaton Rapids. This past year, local stakeholders, paddling advocates and officials from the City of Eaton Rapids and Hamlin and Eaton Rapids Townships worked to remove the West Low-Head Sanitation Dam and replace it with a “natural channel design Modified Wedge-W.” The new design has improved water quality, created fish passage, and created a series of rapids for recreational paddlers. Now that this project is complete, local stakeholders hope to move forward with similar projects on the State Street and Smithville dams. Map 1.4 shows the location of each dam.



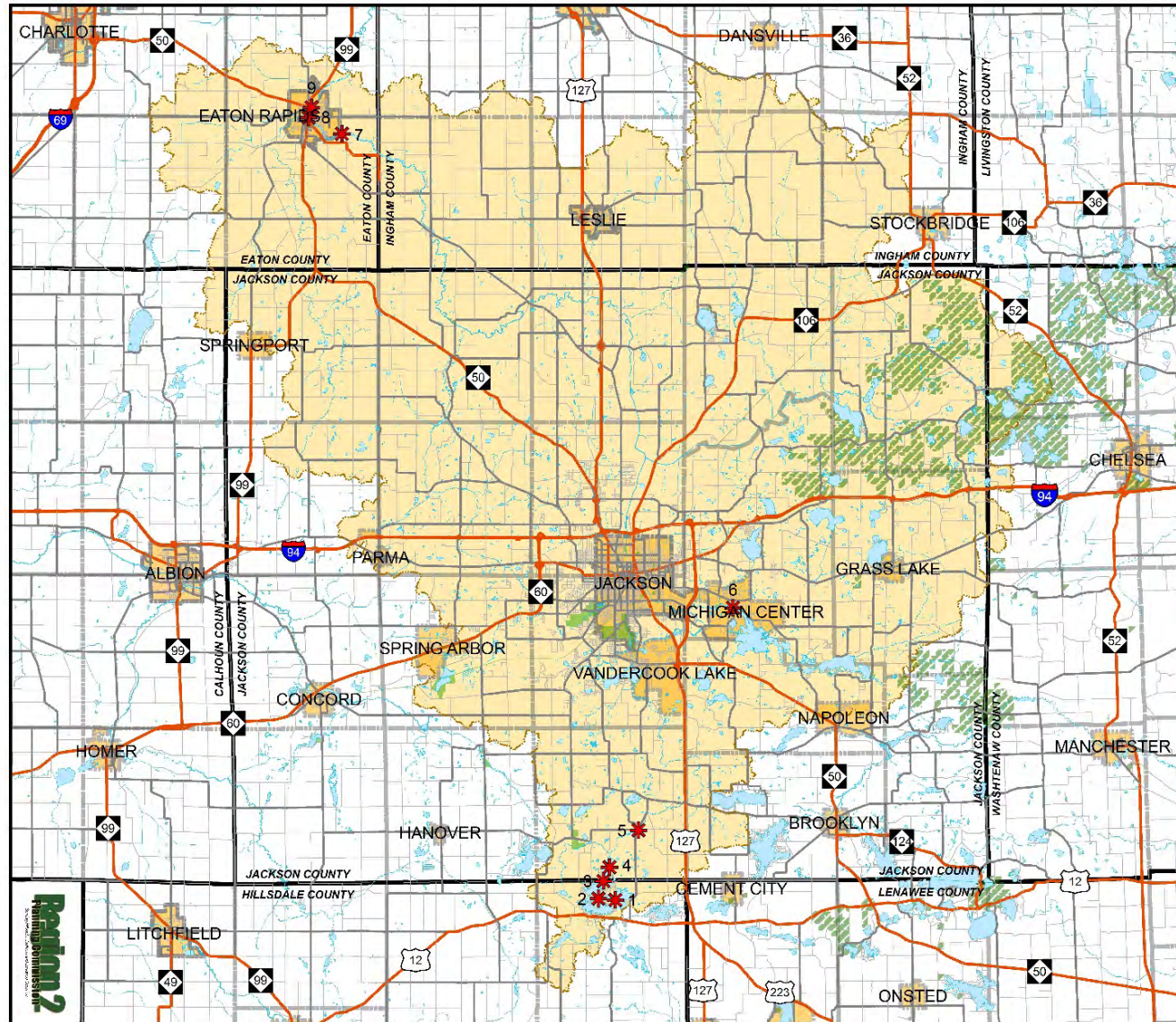
Photo: GREAT Newsletter, June 2011

Bridges (Road Crossings)

An extensive survey was conducted of bridges along the Upper Grand River. In total, 58 bridges were identified. Paddlers have accessed the river near these bridges for many years. However, using areas adjacent to a bridge to access the water can be dangerous for paddlers and damaging to the natural landscape. The public input process for this Plan revealed a desire to direct paddlers away from bridges to better-defined access sites along the water trail. Map 1.5 illustrates the location of each bridge along the water trail. The name of each bridge can be found in Appendix A.

**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**

**MAP 1.4
DAMS**



DAMS

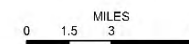
* DAMS

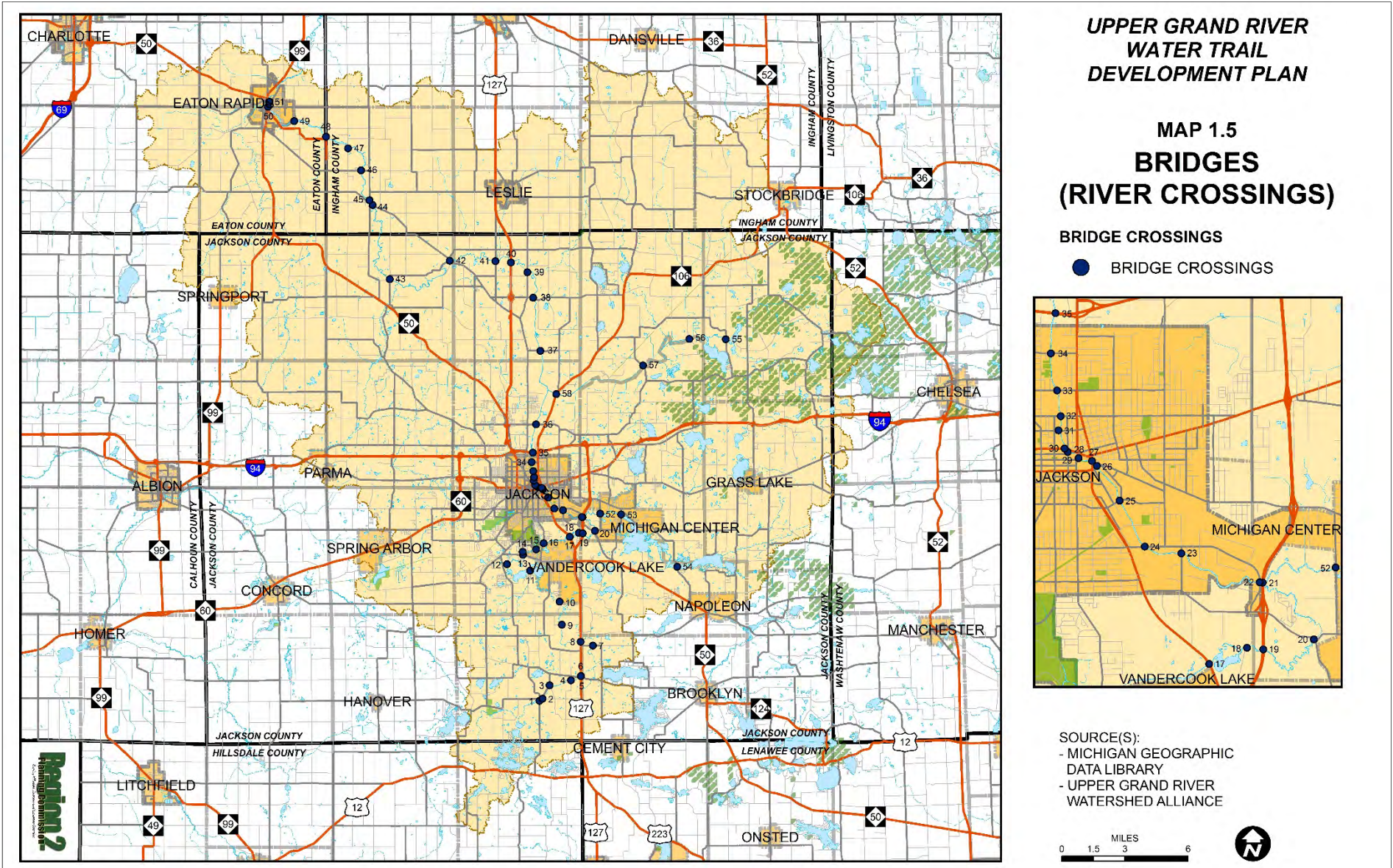
NO. NAME

1. CRYSTAL LAKE DAM
2. SOUTH LAKE LEANN DAM
3. NORTH LAKE LEANN DAM
4. MIRROR LAKE DAM
5. LIBERTY MILL DAM
6. CENTER LAKE DAM
7. SMITHVILLE DAM
8. STATE STREET DAM
9. EAST AND WEST LOW HEAD SANITATION DAMS

SOURCE(S):

- MICHIGAN GEOGRAPHIC DATA LIBRARY
- UPPER GRAND RIVER WATERSHED ALLIANCE





RELATED PLANNING EFFORTS AND RESOURCES

There have been numerous plans and studies, both regional and local, focused on the development and/or enhancement of the Upper Grand River. In addition, there have been several efforts to encourage and support recreational paddling on the Upper Grand River. These existing documents and planning initiatives proved to be very useful in the development of this water trail development plan, providing both contextual and background information as well as information about future plans and projects associated with the river and water trail. In addition, a handful of national and state resources were used to help develop this plan.

National

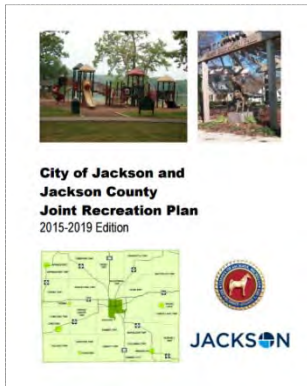
- *Prepare to Launch! Guidelines for Assessing, Designing, and Building Launch Sites for Carry-in Watercraft.* National Park Service, River Management Society. 2014.
- *National Water Trail System: Website & Resources.* National Park Service. Rivers, Trails and Conservation Assistance Program. www.nps.gov/watertrails
- *Managing Visitor Use in Diverse Settings.* PowerPoint Presentation. Interagency Visitor Use Management Council. 2016.
- *Consumer Segmentation Executive Summary,* Outdoor Industry Association.

State

- *Michigan's Great Lakes Water Trails. Website and Resources.* LIAA. Funding for this website and database 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. www.michiganwatertrails.org
- *2016 Michigan Water Trail Summit. Presentations.* Funding for this Summit 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.
- *Agency Policy on State Water Trails Designation, 8-18-2016 Draft.* Michigan Department of Natural Resources.
- *Michigan Comprehensive Trail Plan 2013.* Michigan Department of Natural Resources, Michigan Snowmobile and Trail Advisory Council.
- *Huron River Water Trail Economic Impact Analysis, 2013.* Developed for the Huron River Watershed Council. Prepared by the Washtenaw County Office of Community and Economic Development.

Watershed/Regional

- *Draft Grand River Assessment Special Report, 2011.* Michigan Department of Natural Resources Fisheries Division.
- *Upper Grand River Watershed Management Plan, 2003.* Grand River Inter-County Drainage Board.
- *Upper Grand River Watershed Management Plan Update, 2006.* Grand River Watershed Council.



- *Lower Grand River Water Trail Assessment and Improvement Plan (Draft), 2016. West Michigan Environmental Action Council.*
- *Middle Grand River Organization of Watersheds (MGROW) Website: www.mgrow.org*
- *Grand River Environmental Action Team Website: www.great-mi.org*
- *Upper Grand River Watershed Alliance Website: www.uppergrandriver.org*
- *Upper Grand River Implementation Project, Jackson County Conservation District.*
- *Return the Rapids to Eaton Rapids Patronicity Page:
www.patronicity.com/project/return_the_rapids_to_eaton_rapids#/*

Local

- *City of Jackson and Jackson County Joint Recreation Plan, 2015.*
- *Jackson County Parks and Recreation Website: www.co.jackson.mi.us*



Eaton Rapids

Photo: Grand Rapids Press

CHAPTER TWO – THE PLANNING PROCESS

BACKGROUND

The development of this Plan required comprehensive data collection and analysis, community and stakeholder input, research and review of existing planning documents, and site visits. Ultimately, all this information was used to address and provide recommendations regarding the development of a water trail on the Upper Grand River. While the review of existing planning documents and some site visits occurred early in the planning process, community outreach activities continued throughout the development of this Plan.

INVENTORY

Organizations

In order to develop appropriate goals for the long-term management, oversight and funding of a water trail along the Upper Grand River, it is important to understand which agencies and organizations are currently involved with or working on the river. The following local units of government, agencies and organizations currently play a role in funding projects on and/or managing of the river.

- **Grand River Environmental Action Team (GREAT):** public awareness, river cleanup, and guiding recreational paddling trips
- **Jackson County Conservation District (JCCD):** water quality monitoring; public awareness; erosion, sediment & nutrient management
- **Upper Grand River Watershed Alliance (UGRWA):** river protection & restoration, stormwater management, public education, and water quality monitoring
- **Michigan Department of Natural Resources (MDNR):** land use, wildlife, and fisheries management, recreation, dam management, water trail planning
- **Michigan Department of Transportation (MDOT):** road/stream crossings
- **Outfitters:** paddling equipment sales and rentals
- **Michigan Department of Environmental Quality (MDEQ):** water quality monitoring and permitting, wetland protection
- **U.S. Geological Survey (USGS):** stream flow monitoring
- **Private Enterprises:** accommodations, food and other supplies
- **Region2 Planning Commission:** Comprehensive, local and regional planning
- **Local Municipalities:** access site management, land use management and flood control, recreational development

Department of Natural Resources Water Trail Criteria

In 2016, the Michigan Department of Natural Resources developed draft criteria for a statewide water trail classification system. Elements of the draft criteria were studied and used to guide some of the recommendations described later in this Plan.

Steering Committee

A Steering Committee, consisting of representatives from local units of government and community organizations, helped to guide the planning process and frame the issues and opportunities related to the water trail.



Photo: LIAA

Access Site Assessment

Site visits were conducted to assess existing and potential access sites, using methodology created by the nonprofit Land Information Access Association (LIAA) and the Michigan Coastal Zone Management Program (CZMP).

PUBLIC INPUT***Upper Grand River Water Trail Steering Committee***

A Steering Committee was established at the onset of the project to provide overall guidance to the planning process, help frame the issues and opportunities related to the water trail, discuss potential management options, and make recommendations for the plan. The Steering Committee consisted of representatives from several local units of government and community organizations:

- Blackman Charter Township
- City of Eaton Rapids
- City of Jackson Parks and Recreation Department
- Grand River Environmental Action Team (GREAT)
- Hamlin Township
- Jackson County Parks and Recreation Department
- Jackson County Drain Commissioner's Office
- Jackson County Conservation District
- Leoni Township
- Napoleon Township
- Region 2 Planning Commission
- Summit Township
- Tomkins Township
- Upper Grand River Watershed Alliance
- Washtanong River Conservancy

Access Site Assessment

At the onset of the planning process, the Steering Committee identified approximately 40 existing and potential access sites to the river. Several of these access sites were defined as “formal” access sites — sites identified on an existing map, marked with some signage, overseen by a local government or the State of Michigan, and supported by some degree of amenities. However, many access sites were defined as “informal” — vacant land, parks or areas adjacent to bridges without any amenities where paddlers are accessing the river.

Following discussion regarding the type of access site that should be developed on the river (see Chapter Three), the Steering Committee narrowed the number of existing and potential access sites to 33. Several members of the Steering Committee then performed site visits to each access site along the river. These visits included field documentation of site conditions, available amenities, and a variety of other characteristics that typically support water trails. In addition, several members of the Steering Committee paddled different sections of the river. This allowed for a more thorough analysis of the conditions of the river, the identification and location of hazards and obstacles, float time estimates between access sites, and the mapping of roads and bridges that cross the river. Additional assessments were conducted using aerial photography and discussions with community stakeholders.

Stakeholder Interviews

In an effort to get in-depth information about how the Upper Grand River is managed and what activities are currently underway that might contribute to or impact the development of a water trail, the Project Team conducted interviews with staff members and public officials from several local units of government as well as staff members from community organizations.

Local Units of Government

- City of Jackson
- Summit Township
- Jackson County (Drain Commissioner, Health Department, Parks and Recreation Department)

Community Stakeholders

- Eaton Rapids Paddle Group, Russ Hicks
- Livery Owners
- City of Jackson, Fire Department
- City of Jackson, Police Department

Public Meetings

In an effort to secure community input on the proposed water trail, the Project Team facilitated two public meetings. The public meetings were held on May 5, 2016, and February 15, 2017. The first public meeting introduced the project, solicited information about the current usage of the river, and identified concerns and opportunities related to the proposed water trail. The meeting also included a *red dot/green dot* exercise to gauge public response to a variety of themed images. The diagram below lists subjects that evoked a positive response in green, and subjects that evoked a negative response in red.

Public Meeting One

The first public meeting provided an opportunity for citizens to share their concerns and discuss opportunities for a water trail on the Upper Grand River.



Photo: LIAA



Photo: LIAA

	Amenities	Public Access	River Experience
Positive Response	Signage, kayak slide near steep slopes, trash receptacles, pavilion, grills, some camping, restrooms, gravel parking.	Accessible landings, gravel access sites.	Small rapids, sharing the river with other uses, wildlife, winter paddling, downtown paddling, natural surroundings.
Negative Response	Lack of trash receptacles.	Steep slopes near bridge or road crossings.	Dam portages, extreme rapids, large groups of kayakers and tubers.

Public Meeting Two

The second public meeting provided an opportunity for citizens to review and comment on the draft plan and recommendations.

The second public meeting provided an opportunity for community members to review the planning process, comment on draft recommendations (including potential improvements to each identified access site), identify priorities and discuss next steps.



Photo: LIAA



Photo: LIAA

CHAPTER THREE – RECOMMENDATIONS

INTRODUCTION

In reviewing the long history of water quality and environmental planning efforts along the Upper Grand River and through meetings with the Steering Committee, community stakeholder interviews, and the public meetings, it is clear that the preservation and conservation of the Upper Grand River is extremely important to the agencies and organizations that work on and around the river, the local governments that line the river, and the citizens who live and recreate on the river. The removal of the cap on the river in the City of Jackson in 2001 and other ongoing restoration efforts along the river are a testament to that commitment and sentiment. Therefore, the development of a water trail along the Upper Grand River must strive to *balance* the needs and activities of *all* these stakeholders.

A fundamental question and dilemma that typically occurs in water trail planning efforts is something that has been often cited by resource managers:

How do we determine the maximum amount and type of visitor use that a resource can accommodate while achieving and maintaining desired resource conditions and a visitor experience consistent with the purpose for which the resource was established?

Quantifying the current and appropriate user loads of the river were not under the purview of this Plan. However, one way to determine if the needs and activities of all the river's stakeholders are balanced is to establish and monitor the *expectations* for the river and water trail. For example, when paddling most sections of the river, paddlers should expect to be surrounded by a natural environment with abundant wildlife. Paddlers should expect to negotiate around areas of low water levels and woody debris. Paddlers should expect little to some interaction with other users. Paddlers should also expect to treat private property with respect, and have minimal exposure to trash and other paddlers smoking or drinking on the river. Paddlers should also expect to be served by generally informal amenities — gravel parking lots, vault toilets, simple landings, and accessible launches in certain locations.

On the other hand, when paddling in areas of the river near Michigan Center, Jackson and Eaton Rapids, paddlers should expect to see natural elements within a more urban context. Paddlers should expect to have more interaction with other users, including motorboats in many of the larger lakes. As a result of this additional interaction, paddlers should expect to have more exposure to trash and people drinking and smoking on the river. Paddlers should also expect to be served with more formal amenities — paved parking lots, restrooms, signage, trash receptacles, accessible launches, kayak storage, and links to nearby businesses and outfitters.

The community must continually work together to determine if these expectations are being met and if they are changing. Then, if expectations do change, determine how these new expectations will be managed.

The following recommendations are grouped under themes of operations, physical improvements, and development/identity of the water trail. Because there is no formal collective framework for a water trail at this time, the recommendations are not prioritized. That said, the following operational recommendations would provide such a framework and help stabilize a collective water trail planning effort. At the same time, local jurisdictions could implement (and in some cases already have implemented) physical improvements to access sites along the river that support a water trail.

OPERATIONAL RECOMMENDATIONS

The following operational recommendations would help stabilize and provide a framework for a collective water trail implementation effort. In some instances, the recommendations may take several years to realize, whereas others are more fundamental to moving this plan forward in the near term.

Secure the Steering Committee

In order to move forward, it is essential for the community to secure commitments from community stakeholders to continue the Steering Committee that was established for this planning effort. Many of these stakeholders are listed earlier in this plan. However, additional stakeholders should be invited, including residents along the river. The Drain Commissioner's Office and/or the Upper Grand River Watershed Alliance will likely be needed to continue to house and facilitate the Steering Committee.

Secure Jurisdictional and Stakeholder Support

Once the concept of a water trail is solidified, it will be important to secure formal resolutions of support from communities and agencies in which the water trail and access sites are located and owned. References about the water trail and its amenities should also be included in local recreation and master plans. In addition, the Steering Committee should continue to speak and collaborate with regional partners that may be able to contribute to the development of the water trail (e.g., public safety agencies). The Steering Committee should also support stakeholder organizations ongoing programs and efforts that support the river (e.g., GREAT's annual river cleanup).

Determine and Establish a Formal Framework for Making Decisions and Developing an Action Plan

Ultimately, in order for a water trail to be established along the Upper Grand River, an organization or agency (or a collection of organizations and agencies) will be needed to organize and oversee the development of the water trail, help secure funding, and make decisions. This type of entity could come together in several different ways. For example, the participating jurisdictions could establish a formal recreational authority or participating community stakeholders could adopt a Memorandum of Understanding to work together. Once a formal body is in place, it can help formalize and direct an action plan and determine which agencies/officials/volunteers will be responsible for the implementation of the recommendations outlined in this Plan.

In addition, if and when such an entity seeks and is granted a formal designation for the water trail from the Department of Natural Resources, the entity could perform the bi-annual audit of the trail that is required to keep its designation.

Continue to Work with Regional and State Partners on the Development of the Grand River Water Trail

The Steering Committee and/or formal entity should continue to meet and work with similar organizations and representatives from the Middle Grand River and Lower Grand River to coordinate projects, develop similar water trail amenities (e.g. signage), and develop marketing materials. The Steering Committee should also continue to participate in meetings and planning efforts directed by the Department of Natural Resources regarding the entire Grand River.

ACCESS SITE IMPROVEMENTS

As previously mentioned, at the beginning of the planning process approximately 40 existing and potential access sites were identified by the general public and Steering Committee. These sites included formal boat launches, small stretches of shoreline in parks, and areas near bridges. Each site was inventoried, reviewed, and discussed by the Steering Committee. The Steering Committee then worked to categorize each access site by type and future use – that is, what type of site *should* it be. This categorization is intended to identify priorities and future projects. In addition, several sites were eliminated from future plans. The three categories are described as follows:

Type “A” Access Sites Should Have:

- ADA kayak launch
- Parking for multiple vehicles
- Other amenities (restrooms, interpretive signage, trash receptacle, kayak rack, potable water)

Type “A” sites should stand out as the “signature access sites” for the water trail. These sites should provide as many amenities as possible to paddlers. These sites should be ideal for novice paddlers. These sites should be well signed (wayfinding and informational kiosk) and featured prominently on maps.

Type “B” Access Sites Should Have:

- Unpaved path(s) to the water’s edge
- Limited parking
- Minimal amenities (portable restroom, trash receptacle)

Type “B” sites should be clearly visible from the water. These sites should be signed but probably do not require a kiosk. These sites provide a landing area in between the Type “A” sites, or in some cases, access for more experienced paddlers.

Type “C” Access Sites Have:

- No defined river access
- No formal parking available
- No signage
- No amenities

Type “C” sites are generally adjacent to roads with high speed-limits and no formal parking. In some instances, these are sites where parking and unloading watercraft was determined to be undesirable, unsafe and harmful to the surrounding landscape. These sites have the potential to become developed (into a Type “B” site at some time, but are currently not a priority.

The following series of potential site improvements was created to show general recommendations for improvements at 33 existing and future access sites. These development recommendations should be used as a general framework and planning tool throughout the development and implementation of these access sites over time. It is important to note that these recommendations are not intended to be the final design of each access site. While some recommendations might be easier to implement (e.g., signage), further design work will be required to implement all these recommendations into construction documents and eventually into implementation. It is also important to note that agreement as to the extent, funding, and timeline for such improvements will require the approval of the owner of each access site.

Each access site recommendation is composed of at least two parts:

1. Site Information: On the following pages, an aerial photo and description of the current access site, including all of its amenities and features is provided. A red arrow (→) notes the preferred or existing location of the launch facility.

2. Recommendations: A description of all the recommendations is provided for each site.

Renderings: In some instances, a rendering is provided for the access site. Renderings are not always created to scale and are only meant to provide a general visual representation of what the access site *could* look like with the recommended improvements.

A general cost estimate guideline is provided in Appendix B. Cost estimates should be revised following additional design work, engineering and material/equipment specification. As noted above, recommendations for each access site will include a combination of amenities to provide the optimal but practical access site experience for paddlers. In doing so, the following amenities were considered.

- Launch (including universally accessible launch with accessible routes)
- Restrooms (flush or portable)
- Picnic Tables
- Pavilion/Shelter
- Trash Receptacles
- Signage
- Information Kiosk
- Parking (paved or unpaved)
- Potable Water
- Kayak Storage

A Brief Description of Universally Accessible Launches. The following discussion regarding universally accessible launches was provided by Cindy Burkhour of Access Recreation Group. Cindy is one of Michigan’s foremost experts on universally accessible launches and was a key contributor to the design of the EZ Dock Accessible Launch. A detailed summary of site features for universally accessible launches is provided in Appendix C.

Paddlers of all abilities want to launch and land smoothly without capsizing or damaging their watercraft. They need 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 put-in and take-out. In addition, paddlers must be able to stabilize their watercraft during transitions into and out of their vessel and into and out of the water. It is important to consider universal design practices in the development of the complete water access facility, from car to launch. Simply stated, universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Universal Design

Launch sites that consider universal design (including accessible launches) will ensure that people with all types of abilities are able to safely access the water trail.



Photo: LIAA

TYPE “A” ACCESS SITES (UPPER GRAND RIVER)

VANDERCOOK LAKE COUNTY PARK SUMMIT TOWNSHIP

Vandercook Lake County Park



Photos: LIAA

Site Information

Paddlers currently access Vandercook Lake from the beach at the north end of Vandercook Lake County Park. This area of the park features accessible parking as well as restrooms and a picnic area. The park also features a large covered pavilion with several picnic tables and trash receptacles. Potable water can be accessed from the restroom facility. In addition, Quiet World Sports operates a kayak and stand-up paddle board rental business out of a concession building near the beach.

Another access site in the form of a gravel boat launch is located at the south end of the park. Vehicles access the site via Avenue C. This access site is primarily used to launch motorboats; however, paddlers can utilize the site as well. There are minimal amenities at this location, except for trailer parking and some trash receptacles. At this time, the two access sites within the park are connected by an expansive lawn and playing fields.



Recommendation

The south access site, via Avenue C, would make an ideal location for a universally-accessible kayak launch. The shallow and wide launch area and surrounding shoreline would allow for an accessible launch that would not conflict with motorboat traffic. The accessible kayak launch could include a floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough beach and lawn area at this location to also accommodate staging on land. The large parking area could accommodate a drop-off area that would feature temporary parking, the staging area, a kayak locker, picnic tables and an information kiosk. Together, these amenities would help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail.

Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk. Information about Vandercook Lake (where to eat, sleep and shop) could be placed on the kiosk as well as cultural or interpretive information about the community. A directional sign indicating the access site should also be placed at the intersection of Fourth Street and Avenue C, at Parkway Street and Fourth Streets and along McDevitt Avenue. In addition, a pathway connecting the second access site with the restroom and pavilion facilities at the north end of the parks could be included in future park plans. A cheaper alternative may be to place a vault toilet at the south end of the park.

The north end of the park could also accommodate an accessible launch. However, due to heavy use, stakeholders expressed concerns about conflicts with pedestrians and swimmers. The county should continue to work with Quiet World Sports to accommodate kayak and stand-up paddleboard rentals at the park and discuss how they might be made available at the Avenue C location.

Rendering

Before



After



ELLA SHARP PARK CITY OF JACKSON

Site Information

Ella Sharp Park is located on 562 acres along the banks of the Upper Grand River within the City of Jackson. The topography of the park varies from relatively flat to heavily rolling and hilly. This geology provides a great framework for an interesting golf course. Other park features include beautiful flower gardens, hiking trails, basketball courts, soccer fields, a golf learning center, softball fields, and many facilities for athletics and casual enjoyment of the outdoors. The only amenity at this location that supports paddlers is a small concrete paddle boat access ramp at the “lily pond” on Maplewood Drive.



Recommendation

The City of Jackson should develop an access site for paddlers on the east side of Ella Sharp Park. The present concrete ramp should be replaced and upgraded to have an accessible kayak launch with a small floating platform near the launch bench and rail system to allow for greater mobility. Although there is parking within the park, a new medium-sized parking area could be added to accommodate trailer parking, alongside a drop-off area with temporary parking, a staging area, picnic tables, portable restrooms and pavilion (or shelter), and an information kiosk. Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail. Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk. Information about the park (and all city parks) could be placed on the kiosk as well as cultural or interpretive information about the site. Directional signs indicating the access site should also be placed at key locations along 4th Street, and along Stonewall, Maplewood, and Probert Roads. In addition, a sign indicating the availability of an access site should be placed at the entrance of the park.

CITY-OWNED PROPERTY (HIGH STREET – EAST BRIDGE) CITY OF JACKSON

Site Information

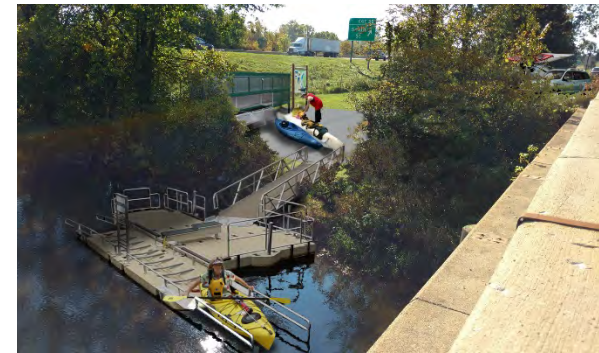
The confluence of the Grand River and the two “branches” of the proposed water trail is located just west of US 127 near the High Street Bridge. Community stakeholders have identified this area as an ideal location for a new access site. The proposed access site would provide access to both the Main Branch of the river as it flows from its headwaters south of Jackson into downtown Jackson and the North Branch of the river as it flows from Michigan Center. Community stakeholders have identified a parcel owned by the City of Jackson, approximately 100 yards downstream of the confluence, as the ideal location for the new access site.



Recommendation

The City of Jackson parcel would make an ideal location for a “Paddling Hub” for the proposed water trail, marking the focal point between the two proposed water trail segments. The site would feature an accessible kayak launch with a floating platform near the launch bench and rail system to allow for greater mobility. A medium-sized parking area could be added to accommodate trailer parking, alongside a drop-off area with temporary parking, a staging area, a kayak locker, picnic tables, restrooms and pavilion (or shelter), and an information kiosk. Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail. Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk. Information about Jackson and Michigan Center (where to eat, sleep and shop) could be placed on the kiosk as well as cultural or interpretive information about the community. Directional signs indicating the access site location should also be placed along East High Street. In addition, a sign identifying this park as a “paddling hub” should be placed at the launch site.

Before



RIVERFRONT PARK CITY OF JACKSON

Site Information

Community stakeholders have worked to find an ideal location for an access site near downtown Jackson for quite some time. Not only does the Grand River flow right through downtown Jackson, but since the “cap” was removed several years ago, the river has become a natural focal point. Community stakeholders have identified Riverfront Park, just a block away from downtown, as an ideal location for a downtown access site. The access site would be linked to the downtown via the non-motorized land trail running through the park.

Riverfront Park |



Photo: Jim Seitz

Recommendation

Riverfront Park would make an ideal location for a downtown access site to the river. In addition, the access site would provide an opportunity for paddlers to leave the river and access the downtown. The site would feature an accessible kayak launch. However, given the elevation change between the river and the pathway, and the dramatic fluctuation of water levels during the summer months, the launch would need to be engineered and constructed to balance the needs of paddlers with the practical limitations of the adjacent land. For example, in low water conditions, the site might not support every accessible launch feature. However, a staging area could be located near the pathway or near the immediate shoreline of the river.



A handful of parking spaces in the parking lot on the north side of the river (near the State Offices building) could be utilized for trailer parking. The parking lot area could also be reconfigured to accommodate a small drop-off area. The south side of the river, adjacent to the non-motorized trail, could include a staging area, a kayak rack, picnic tables, and an information kiosk. Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail and/or downtown Jackson. Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk. Information about downtown Jackson (where to eat, sleep and shop) could be placed on the kiosk as well as cultural or interpretive information about the community. Because of the low railroad bridge a few blocks downstream, a staff gauge and interpretive signage about the dangers of paddling in high water should be placed near Riverfront Park.

Rendering

Before



After



During the planning process, local stakeholders noted the importance of developing a formal access site within downtown Jackson. However, given water fluctuations at this particular site, the steering committee noted other areas along the river, within the downtown, that might also accommodate a formal launch. While some of these sites (see right) might better accommodate fluctuations in the water level of the river, they don't always have the surrounding site features (e.g., parking, staging area, channelization) to make it an ideal access site location. After further investigation and study, if Riverfront Park is proven to be an undesirable location for an access site, other areas will be examined further.



JACKSON COUNTY FAIRGROUNDS CITY OF JACKSON

Site Information

The Jackson County Fairgrounds are located along the Upper Grand River, just north of downtown Jackson. The Fairgrounds feature a large dirt track and several small and large buildings. The Fairgrounds host approximately nine signature events each year between August and March.

Jackson County Fairgrounds |



Photo: Jim Seitz



Recommendation

County officials are considering developing a county-owned lot just north of North Street into a campground with a launch. Currently, the lot is used for temporary camping by county fair vendors and exhibitors. Given the elevation change between the river and the parking lot, any proposed launch would need to be connected to the parking area with an accessible gangway. If the County moves forward with improvements, the campground should include a parking lot and a small drop-off area that could include a staging area, a picnic table, permanent bathroom and information kiosk. Upper Grand River Water Trail signs should be placed near the kayak launch and on the informational kiosk. Cultural and interpretive information about the Jackson County Fairgrounds could be placed on the kiosk as well. Information about the dangers of paddling in high water should also be posted.

PARNALL ROAD (NORTHEAST SIDE) BLACKMAN CHARTER TOWNSHIP

Site Information

At this time, there are no formal paddling or access amenities at Parnall Road. Traffic on Parnall Road and the lack of available parking make access to this site fairly difficult. However, the steering committee decided that if and when access is established, the northeast side of Parnall would make an ideal location for a fully developed access site. This site has been identified as the location for a portion of the Lake-to-Lake Trail, a 260-mile long non-motorized trail connecting the coastal communities of Port Huron and South Haven.



Recommendation

Despite its proximity to the baseball complex, the area around the river on the southeast side of Parnall Road is fairly wet, and would not support a launch or other amenities. The opportunity to develop a shared trailhead that links both the Lake-to-Lake Trail and Upper Grand Water Trail on the northeast side of Parnall Road is rare and should be pursued. Preliminary discussions have identified a desire for a formal access site, with an accessible kayak launch, on the northeast side of the river. A parking area would need to be developed to accommodate trailer parking and a small drop-off area that could include a staging area, a picnic table and information kiosk. Before any amenities are developed for the water trail, the steering committee should work with regional and state trail planners to determine the likely location of the Lake-to-Lake Trail and discuss if amenities (e.g., parking, restrooms, and picnic tables) could be shared and connected.

MAPLE GROVE BRIDGE ACCESS SITE RIVES TOWNSHIP

Site Information

The Maple Grove Bridge Access Site is owned by the Michigan Department of Natural Resources (DNR). The access site has a hard-surfaced ramp into the water, 12 formal parking spaces and a small fishing pier. The access site is also signed and has a kiosk.

**Maple Grove Bridge
Access Site**



Photo: Jim Seitz



Recommendation

Local water trail stakeholders should work with the DNR to provide additional paddling amenities to the access site. The access site could support a universally-accessible kayak launch near the existing hard-surfaced ramp, although spring flooding is a concern. The accessible kayak launch could include a floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough open shoreline area at this location to also accommodate staging on land. Other amenities at this location could include a picnic table and/or a seasonal portable toilet. These amenities should be placed far enough from the river to avoid damage from spring flooding. No trespassing signs should also be erected near the access site to discourage trespass on adjacent private property.

TOMPKINS BRIDGE ACCESS SITE TOMPKINS TOWNSHIP

Site Information

The Tompkins Bridge Access Site is owned by the DNR. The access site has a hard-surfaced ramp into the water, 15 parking spaces, and a toilet. The access site is also signed.



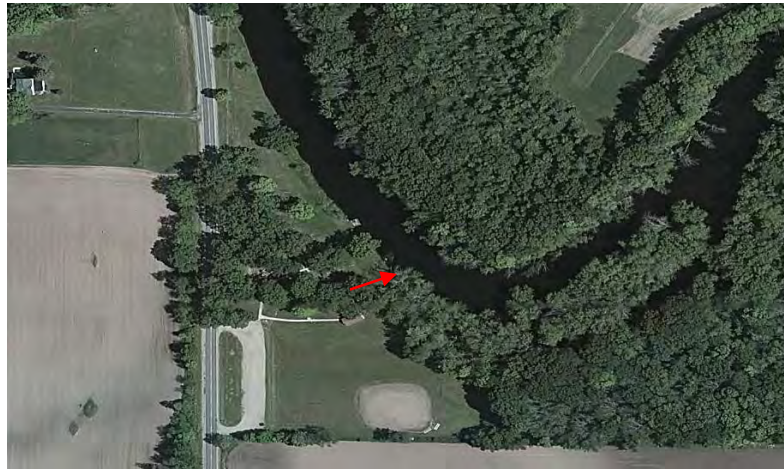
Recommendation

Local water trail stakeholders should work with the DNR to provide additional paddling amenities to the access site. The access site could support a universally-accessible kayak launch near the existing hard-surfaced ramp, although it would require a significant gang-way to mitigate the slope between the parking lot and the water. The accessible kayak launch could include a floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough open shoreline area at this location to also accommodate staging on land. Other amenities at this location could include a picnic table and information kiosk. Tompkins Township officials have expressed interest in developing a campsite for paddlers on Township property located near the access site. Local water trail stakeholders should continue to support conversations between officials from the DNR and Tompkins Township about opportunities for collaboration.

BALDWIN PARK ONONDAGA TOWNSHIP

Site Information

Baldwin Park is owned by Onondaga Township and is one of only two access sites located in Ingham County. Baldwin Park features a children's playground, a pavilion, a softball field, potable water from an artesian well and restroom facilities. Along the river, the park features an observation/fishing pier. There are no formal paddling amenities at the park.



Recommendation

Baldwin Park would make another ideal location for an access site for the water trail. The site could feature an accessible kayak launch with a floating platform near a launch bench and rail system to allow for greater mobility. The existing parking lot could be reconfigured to accommodate trailer parking. Other amenities could include a kayak locker and an information kiosk. Upper Grand River Water Trail signs should be placed near the accessible kayak launch and within the informational kiosk. Directional signs indicating the access site should also be placed along Onondaga Road. Township officials are currently developing a new recreation plan and have expressed interest in including these amenities for paddlers. The steering committee should continue to work with local officials to explore the best location within the park for such amenities.

Local officials from the nearby Village on Onondaga have recently initiated discussions about establishing their own access site closer to town. In addition, Clones Party Store has expressed interest in providing paddling access at their store, just a short distance downstream of the park.

MILL POINTE PARK CITY OF EATON RAPIDS

Site Information

Mill Pointe Park is located off Mill Street in downtown Eaton Rapids. As previously noted, the West Low Head Sanitation Dam was removed in 2016 and replaced with a series of rapids. Access ramps both upstream and downstream of the rapids, allow paddlers to access and play within the rapids. This site also features nearby parking, restrooms and the Eaton Rapids Outdoor Recreation Center. The city-owned recreation center provides kayak, canoe and bike rentals. In addition, a new upscale restaurant opened in the old Miller Ice Cream Parlor adjacent to the recreation center.



Recommendation

This site marks the downstream-most launch along the Upper Grand River portion of the Grand River Water Trail and its confluence with the Middle Grand River Heritage Water Trail. Upper Grand River Water Trail stakeholders should work with representatives of MGROW to coordinate and link water trail amenities and information whenever possible; particularly regarding signage and other promotional materials (e.g., maps, brochures etc.).

Mill Pointe Access Site



SUMMARY LIST OF TYPE “A” ACCESS SITES (GRAND RIVER)

1. *Vandercook Lake County Park*
Summit Township
2. *Ella Sharp Park*
City of Jackson
3. *City-Owned Property (High Street- East Bridge)*
City of Jackson
4. *Riverfront Park*
City of Jackson
5. *Jackson County Fairgrounds*
City of Jackson
6. *Parnall Road*
Blackman Charter Township
7. *Maple Grove Bridge Access Site*
Rives Township
8. *Tompkins Bridge Access Site*
Tompkins Township
9. *Baldwin Park*
Onondaga Township
10. *Mill Pointe Park*
City of Eaton Rapids

TYPE “B” ACCESS SITES (UPPER GRAND RIVER)

LIBERTY MILL POND TOWNSHIP PARK LIBERTY TOWNSHIP

Site Information

Liberty Township Park is located on the Liberty Mill Pond, just upstream (about a block away) of the Liberty Mill Pond Dam. The township park has a fairly large parking area and a pavilion. When the Township office is open, paddlers have access to restrooms. There are no formal paddling amenities at the park at this time.



Recommendation

Township officials could install a small dock at the edge of the shoreline that would help alleviate existing erosion. The existing parking lot could be reconfigured to accommodate one trailer parking space. An Upper Grand River Water Trail sign should be placed near the shoreline (or proposed dock). Additional signage should note the dam and any other amenities at Liberty Mill Pond Dam access site.

Liberty Mill Pond Township Park



Photo: Jim Seitz

LIBERTY MILL POND DAM LIBERTY TOWNSHIP

Site Information

Adjacent to the Liberty Mills Dam, there is a small but well-maintained park-like area privately owned by the nearby Liberty General Store. Store owners often allow paddlers to use their parking lot and restroom facility. There are currently no other features or amenities at this location that support paddlers and the dam is a significant impediment.

**Liberty Mill
Pond Dam**



Photo: Jim Seitz



Recommendation

Given that Liberty Township Park is located less than a quarter-mile upstream, providing access near the Liberty Mills Dam may not be advantageous. The steering committee should continue to discuss the need for an access site near this location that would allow paddlers to bypass the dam.

At a minimum, local stakeholders should work with the owners of the Liberty Store to be sure they are providing goods that might be of interest to paddlers (e.g., food, drink and paddle gear). For historical and paddle recreational purposes, the Township may wish to explore the possibility of purchasing this property.

MERIDIAN ROAD (US 127) NEAR REED ROAD LIBERTY TOWNSHIP

Site Information

Paddlers currently enter the river near the US-127 bridge, just north of Reed Road. The area near the bridge is fairly flat, with a large staging area. Paddlers often drop off their kayak and gear near the river, park at the Austin Blair MDOT Roadside Park just down the road to the south and then walk back to their kayak. The park is open from Memorial Day through Labor Day and is equipped with ample parking, a restroom and a hand-pump for water.



Recommendation

The parcel and house on the northwest side of the bridge is currently unoccupied and may go up for sale sometime in the future. Local officials and the steering committee should continue to monitor the status of the property and discuss options to purchase the parcel and establish a more formal launch. The launch could be constructed of concrete slabs or a small dock platform. Additional amenities could include trash receptacles, parking, picnic tables and an information kiosk. Other options for an access site near this location may include the use of the Old Meridian Road right-of-way on the east side of US-127.

SUMMIT TOWNSHIP PROPERTY SUMMIT TOWNSHIP

Site Information

Located just off of Draper and River Park Roads, Summit Township owns several acres behind a small subdivision along the Upper Grand River. There are currently no features or amenities at this location that support paddlers. Paddlers primarily access the river via a small, limited-access area adjacent to the Draper Road Bridge.



Recommendation

The addition of an access site at this location would cut the paddle time between Loomis Road and Vandercook Lake by nearly half. Summit Township officials have expressed a willingness to sell this parcel to another entity to support the Upper Grand River Trail. Local stakeholders should continue to talk with township officials about the potential sale of this parcel. Once acquired, the new owners could install a small dock or ramp at the edge of the riverbank that would help paddlers access the water. The dock or ramp could be part of a larger park development initiative. Other park considerations could include a formal access road, parking, a vault toilet, picnic tables and trash receptacles. An Upper Grand River Water Trail sign should be placed near the shoreline (or proposed dock or ramp). Additional signage near Draper Road should note the location of the launch and park.

LIONS PARK CITY OF JACKSON

Site Information

Community stakeholders have identified Lions Park as a possible location for an access site. Located north of downtown Jackson, Lions Park lies adjacent to the Grand River and the Arts Walk. Lions Park also is also used by cyclists and will soon be part of the 260-mile Lake-to-Lake Trail now under development. Vehicles access the park via Adams Street. Lions Park has two softball fields, tennis courts, two basketball courts, a playground, picnic shelter, large parking area, trash-cans, grills, and a portable toilet.



Recommendation

Lions Park would make another ideal location for an access site for the proposed water trail. Although the park is currently listed as a “B” site, it could easily be elevated to an “A” site if plans for an access site at the County Fairgrounds do not materialize. Lions Park could feature an accessible kayak launch with a floating platform near the launch bench and rail system to allow for greater mobility. The existing parking lot could be reconfigured to accommodate trailer parking, a drop-off area with temporary parking, a staging area, a kayak locker, additional portable restrooms and an information kiosk. Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail.

Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and within the informational kiosk. Information about Jackson (where to eat, sleep and shop) could be placed on the kiosk as well as cultural or interpretive information about the community. Directional signs indicating the access site should also be placed along the Art Walk and at the intersection of Adams Street and Blackstone Street.

Lions Park



Photos: LIAA

R.A. GREENE PARK/JACKSON WASTEWATER TREATMENT PLANT BLACKMAN CHARTER TOWNSHIP

Site Information

R.A. Greene Park, adjacent to the Jackson Wastewater Treatment Plant is located along the Upper Grand River off Lansing Avenue, just north of Interstate 94. Outside of a stone staircase and a few picnic tables, the site has no features or amenities at this time that support paddlers. The site has parking along a dirt road, about 100 yards from the river, separated by a wide open mowed area.

**R.A. Greene Park
Jackson Wastewater Treatment Plant**



Photo: Jim Seitz



Recommendation

While it might seem undesirable to locate an access site near a wastewater treatment plant, the amount of available space and the channelization of the river does provide an opportunity to provide for an accessible launch. Due to the slope along the river, the exact siting of a launch at this location will need to be studied more closely. At a minimum, an accessible route and rail system will allow paddlers to get from the parking area to the river more easily. A portable restroom and informational kiosk might be the only other types of infrastructure needed. Information about the treatment plant (e.g., “how water works”) could be placed on the kiosk. The site also has a USGS gauging station which could provide for additional educational opportunities.

GREAT (GRAND RIVER ENVIRONMENTAL ACTION TEAM) PROPERTY BLACKMAN CHARTER TOWNSHIP

Site Information

GREAT owns a large undeveloped parcel along the west shoreline of the Upper Grand River, just north of Parnall Road. A pole-barn was recently erected on the site to house boats and other equipment. However, no other features or amenities exist at this time to support paddlers.



Recommendation

GREAT is currently working to implement formal plans for this site. Plans for future improvements include public access to the river as well as providing educational programs.

US 127 & STATE ROAD RIVES TOWNSHIP

Site Information

Owned by the Jackson County Department of Transportation, this site has no formal paddling amenities at this time. Paddlers enjoy easy access to the river via a gentle grass slope at the end of State Road. This road ending has enough space to park several cars and stage kayaks and canoes.

US 127 & State Road |



Photos: Jim Seitz



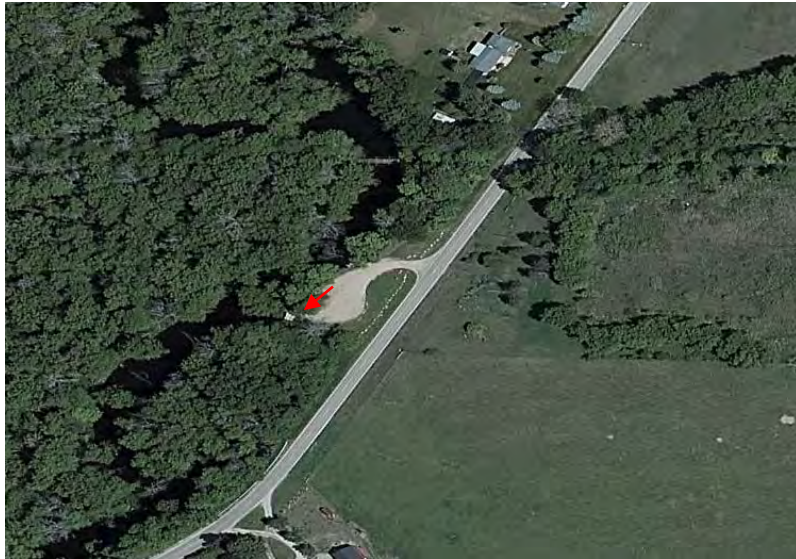
Recommendation

Perhaps the only improvements needed at this location would be an Upper Grand River Water Trail sign near the shoreline and trash receptacles. An additional way-finding sign should be placed at the intersection of State and Territorial Roads. It is important to note that it is roughly a three-hour paddle from Maple Grove to this site. Therefore, local stakeholders may want to work with the JDOT to also install a portable toilet at this site.

TRESTLE BRIDGE ACCESS SITE TOMPKINS TOWNSHIP

Site Information

The Trestle Bridge Access Site off Dixon Road is owned by the DNR. The access site has a carry-down launching area with old railroad-tie steps. The site does not have an improved ramp and is suitable for paddle craft. There are roughly 12 parking spaces within a small gravel parking lot.



Recommendation

Local water trail stakeholders should work with the DNR to provide minimal paddling amenities to the access site. The access site could support a universally-accessible kayak launch, but it is probably not needed in this location. However, other launch improvements could be considered to help preserve the integrity of the shoreline, such as a rubber mat. Other amenities at this location could include a picnic table and information kiosk.

Trestle Bridge Access Site



Photos: Jim Seitz

5TH STREET CANOE/KAYAK LIVERY (PROPOSED) LEONI TOWNSHIP

Site Information

A canoe and kayak livery has been proposed just east of 5th Street in Leoni Township. The size and location of the livery have not yet been determined. This site would mark the easternmost access site on the Grand River spur, connecting to the Chain of Lakes Water Trail.



Recommendation

Local water trail advocates should continue to work with and support township officials in their pursuit of the livery and discuss the possibility of incorporating water trail signage.

GALE ROAD STATE GAME AREA ONONDAGA TOWNSHIP

Site Information

The Gale Road State Game Area is owned by the DNR. The site features a small parking area and rustic access into the Grand River. There are no formal paddling amenities at this location.



Recommendation

The Gale Road State Game Area is fairly rustic. Local advocates could work with the DNR to develop a small dock to more easily allow paddlers to access the water. Other site amenities could include a picnic table and trash receptacle. Upper Grand River Water Trail signs and/or an informational kiosk should be placed near the kayak launch. Directional signs indicating the access site should also be placed along Gale Road.

SMITHVILLE DAM (SMITHVILLE PARK) HAMLIN TOWNSHIP

Site Information

The Smithville Dam is the first large dam requiring a portage on the Upper Grand River Water Trail. Paddlers currently navigate around the dam via an approximately 600-foot portage and an informal take-out and put-in at Smithville Park owned by Hamlin Township, on the north side of the river. In addition to the river access, Smithville Park features an area to fish, picnic tables, trash cans and a well-known artesian well that has flowed continuously for over 175 years. Paddlers can access the park and the river by a small parking lot off Smithville Road. Hamlin Township has discussed providing additional amenities at this park and regional advocacy groups have discussed options for dam removal.

Smithville Dam (Smithville Park) |



Recommendation

The steering committee should continue to offer support, encouragement and assistance to Hamlin Township, local dam removal advocates regarding development of improved paddling amenities at this site.

MCARTHUR PARK CITY OF EATON RAPIDS

Site Information

McArthur Park is located on the east side of the Grand River in the City of Eaton Rapids.

In McArthur Park, paddlers access the river via a small ramp near the end of Forest Street. Other park features include a playground, bathroom, picnic tables, benches, and trash receptacles. Paddlers must park along McArthur Park Drive to access the ramp. McArthur Park is also the last take out before the State Street Dam.



Recommendation

Local water trail stakeholders should work with Eaton Rapids representatives to coordinate and link water trail amenities whenever possible. The most common point at which cooperation will be important is with signage and other promotional materials (e.g., maps, brochures etc.).

SUMMARY LIST OF TYPE “B” ACCESS SITES (GRAND RIVER)

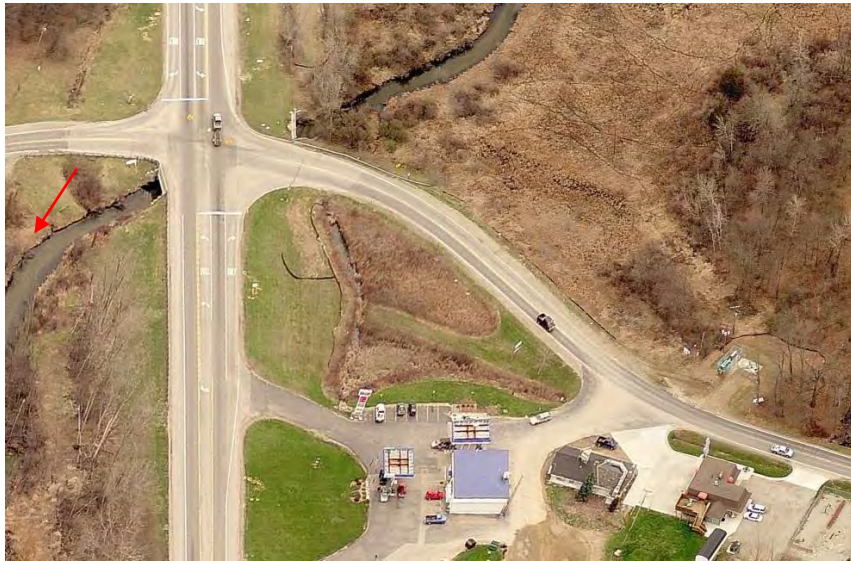
1. *Liberty Mill Pond Township Park*
Liberty Township
2. *Liberty Mill Pond Dam*
Liberty Township
3. *Meridian Road (US 127) Near Reed Road*
Liberty Township
4. *Summit Township Property*
Summit Township
5. *Lions Park*
City of Jackson
6. *R.A. Green Park/Jackson Wastewater Treatment Plant*
Blackman Charter Township
7. *GREAT Property*
Blackman Charter Township
8. *US 127 & State Road*
Rives Township
9. *Trestle Bridge Access Site*
Tompkins Township
- 9a. *5th Street Canoe/Kayak Livery (Proposed)*
Leoni Township
10. *Gale Road State Game Area*
Onondaga Township
11. *Smithville Dam (Smithville Park)*
Hamlin Township
12. *McArthur Park*
City of Eaton Rapids

TYPE “C” ACCESS SITES (UPPER GRAND RIVER)

JEFFERSON ROAD AT MERIDIAN ROAD (US 127) LIBERTY TOWNSHIP

Site Information

At this time, there are no formal paddling amenities at this site. Paddlers access the river, via a small area (vacant lot) along the shoulder of the road. The banks along the river at this site feature tall grass and are fairly steep, making it difficult for paddlers to enter the water. The site is currently owned by the Bauer Investment Corporation. There is a gas station and two fast food establishments on the opposite side of the intersection.



Recommendation

Initial feedback from Liberty Township officials about this proposed access site can be described as “lukewarm” at best. Local officials noted concerns about the ability to provide for adequate parking and pedestrian safety. In addition, the Township has identified other parcel it’s hoping to purchase for parkland. The steering committee should continue to discuss this property with Township officials as considerations and priorities may change over time.

Jefferson Road & US-127



Photo: Jim Seitz

LOOMIS ROAD LIBERTY TOWNSHIP

Loomis Road |



Photo: Don Nelson

Site Information

Paddlers of the Upper Grand currently access the river on the southeast side of the Loomis Road Bridge. The site is currently owned by Jackson Lodge 113 BPOE. There is very little traffic on this dirt road allowing paddlers to safely park on the shoulder of the road.



Recommendation

Local officials and the steering committee should consider developing this site as a formal access site if public access can be obtained and safer parking can be provided.

SUMMARY LIST OF TYPE “C” ACCESS SITES (GRAND RIVER)

1. *Jefferson Road at Meridian Road (US 127)*
Liberty Township
2. *Loomis Road*
Liberty Township

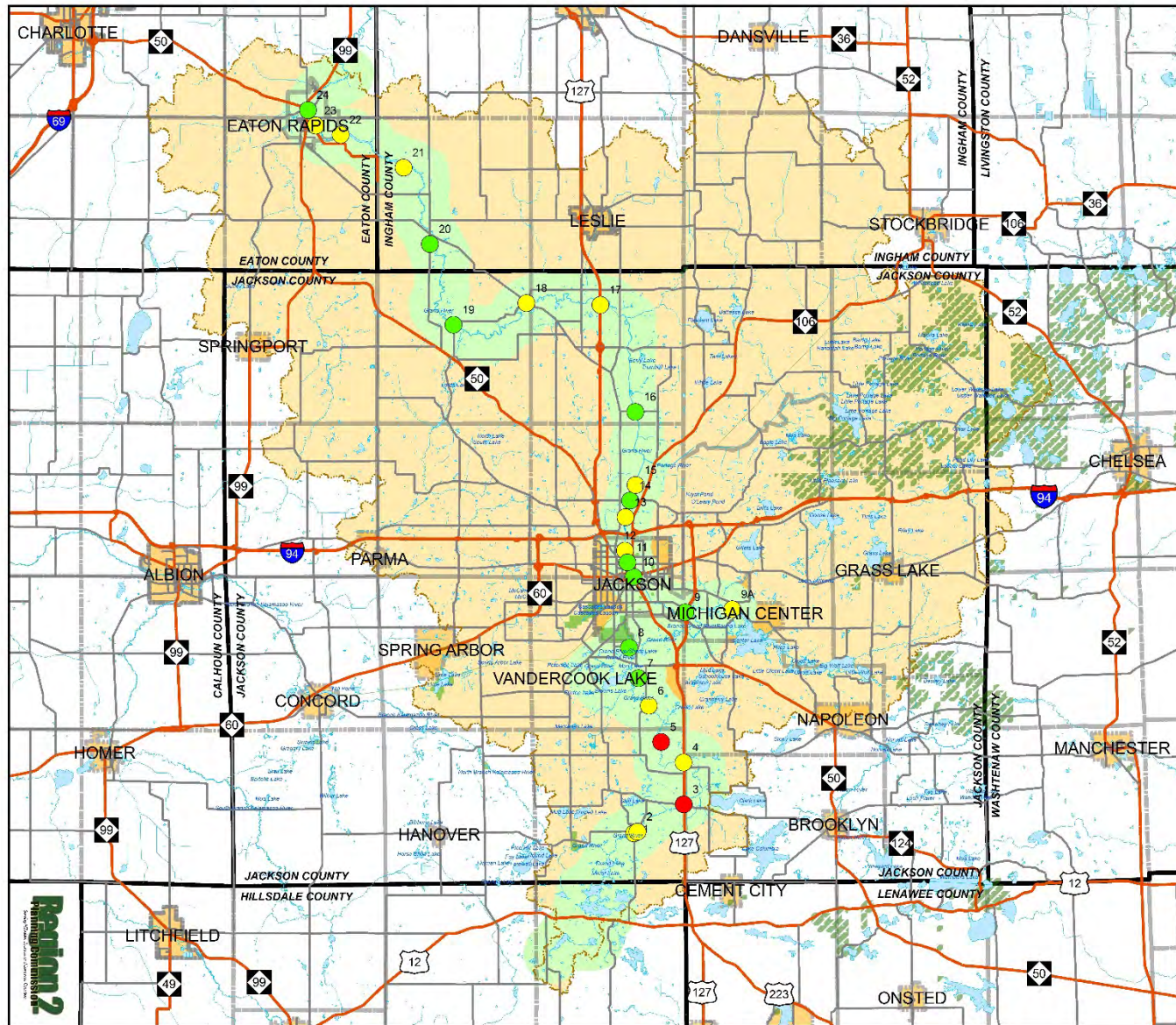
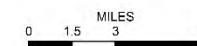
**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**
MAP 3.1
**UPPER GRAND RIVER
WATER TRAIL**

LAUNCH SITE TYPES

- TYPE "A" SITES
- TYPE "B" SITES
- TYPE "C" SITES

1. LIBERTY MILL POND - TOWNSHIP PARK
2. LIBERTY MILL POND DAM
3. JEFFERSON RD AT MERIDIAN RD (US-127)
4. MERIDIAN RD (US-127) NEAR REED RD
5. LOOMIS RD
6. SUMMIT TOWNSHIP PROPERTY
7. VANDERCOOK LAKE COUNTY PARK
8. ELLA SHARP PARK
9. CITY-OWNED PROPERTY (HIGH ST)
- 9A. 5TH ST CANOE/KAYAK LIVERY (PROPOSED)
10. RIVERFRONT PARK
11. JACKSON COUNTY FAIRGROUNDS
12. LIONS PARK
13. R.A. GREEN PARK
14. PARNELL RD (NORTHEAST SIDE)
15. GREAT PROPERTY
16. MAPLE GROVE BRIDGE
17. US-127 & STATE RD
18. TRESTLE BRIDGE ACCESS SITE
19. TOMPKINS BRIDGE
20. BALDWIN PARK
21. GALE RD STATE GAME AREA
22. SMITHVILLE DAM/SMITHVILLE PARK
23. McARTHUR PARK
24. MILL POINTE PARK

SOURCE(S):
 - MICHIGAN DEPARTMENT OF NATURAL RESOURCES
 - MICHIGAN GEOGRAPHIC DATA LIBRARY
 - UPPER GRAND RIVER WATERSHED ALLIANCE



TYPE “A” ACCESS SITES (CHAIN OF LAKES)

CENTER LAKE BOAT LAUNCH LEONI TOWNSHIP

Site Information

The Center Lake Boat Launch is owned by the Michigan Department of Natural Resources. The access site has a hard-surfaced ramp into the water, 30 parking spaces, and restroom facilities (including a handicap accessible restroom) as well as an accessible ramp and sidewalk to the hard edge of the launch. Paddlers should be aware of strong winds in this part of the lake as well as potential conflicts with motorboats, especially on holidays and weekends.



Recommendation

Local water trail stakeholders should work with the DNR to provide additional paddling amenities at the access site. The access site could support a universally-accessible kayak launch. However, it would have to be located away from the current boat ramp area, so it wouldn't interfere with motorboat traffic. A steep bank will provide some design challenges. The accessible kayak launch could include a floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough open shoreline area at this location to also accommodate staging on land. The parking lot could also be reconfigured to include a drop-off area that would feature temporary parking, the staging area, and an information kiosk. Together, these amenities help establish a “paddler's plaza” or focal point for paddlers wishing to access the proposed water trail. An accessible route should also be developed that would connect paddlers from the parking lot to the proposed launch as well as the bathroom. Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk.

LEONI COMMUNITY PARK LEONI TOWNSHIP

Leoni Community Park |



Site Information

Leoni Community Park is located on Center Lake at the western terminus of the Chain of Lakes Water Trail where Center Lake flows into the North Branch of the Upper Grand River. The park features a large gravel surfaced ramp that can accommodate both small and medium-sized boats. The ramp is supported by a large 26-space parking lot. Paddlers should be aware of strong winds in this part of the lake as well as potential conflicts with motor boats, especially on holidays and weekends. A party store and restaurant/bar are located within a short walk of Community Park. In addition, several fast-food restaurants are located on nearby Page Avenue. A livery has been proposed near the existing party store that would allow paddler's access to the Grand River and Chain of Lakes.



Recommendation

Leoni Township officials could support a universally-accessible kayak launch at this site. Given the existing condition of the site, the launch should probably be located off the existing dock and boardwalk so paddlers would not interfere with motorboat traffic. The accessible kayak

launch could include a floating platform near the launch bench and rail system to allow for greater mobility. The parking lot could also be reconfigured to include a drop-off area that would feature temporary parking, a kayak locker, picnic table, portable bathroom, and an information kiosk (including a map of the Chain of Lakes). Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail. In the short-term, the parking lot could be marked and signed to allow for trailer parking. An accessible route should also be developed that would connect paddlers from the parking lot to the proposed launch as well as other site amenities. Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk.

TYPE “B” ACCESS SITES (CHAIN OF LAKES)

LITTLE WOLF LAKE COUNTY PARK NAPOLEON TOWNSHIP

Site Information

Little Wolf Lake County Park lies on the eastern shore of Little Wolf Lake. The 9-acre park has a picnic shelter with grills, a restroom, a grassy beach and swim area. The park is served by a small informal parking lot. Paddlers should be aware of strong winds in this part of the lake as well as potential conflicts with motor boats, especially on holidays and weekends.



Recommendation

Little Wolf Lake County Park would mark the easternmost trailhead location for the Chain of Lakes Water Trail. The shallow and wide launch area and surrounding beach area

would allow for an accessible launch that would not conflict with neighboring motorboat traffic. The accessible kayak launch could include a floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough beach and lawn area at this location to also accommodate staging on land. The small parking area could also be reconfigured to include a drop-off area that would feature temporary parking, the staging area and an information kiosk (including a map of the Chain of Lakes). Together, these amenities help establish a “paddler’s plaza” or focal point for paddlers wishing to access the proposed water trail. An accessible route should also be developed that would connect paddlers from the parking lot to the proposed launch as well as the pavilion and bathroom.

Upper Grand River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk. Information about Jackson County Parks could be placed on the kiosk as well as cultural or interpretive information about the Chain of Lakes.

**Little Wolf Lake
County Park**



CAMP TEETONKAH LEONI TOWNSHIP

Camp Teetonkah |



Photo: Mlive.com

Site Information

Camp Teetonkah is the second oldest Boy Scout Camp in the United States. The 240-acre camp sits on the northwest edge of Big Wolf Lake. Access to the lake is provided by a small grassy beach. The Camp also has a sandy swimming area. Paddlers should be aware of strong winds in this part of the lake as well as potential conflicts with motorboats, especially on holidays and weekends.



Recommendation

Currently, two different parties have inquired about purchasing the camp. Each party's vision for the camp remains unclear. However, unless an accessible launch was desired, very little improvements would be necessary at this site.

SUMMARY LIST OF TYPE “A” ACCESS SITES (CHAIN OF LAKES)

1. *Center Lake Boat Launch*
Leoni Township
2. *Leoni Community Park*
Leoni Township

SUMMARY LIST OF TYPE “B” ACCESS SITES (CHAIN OF LAKES)

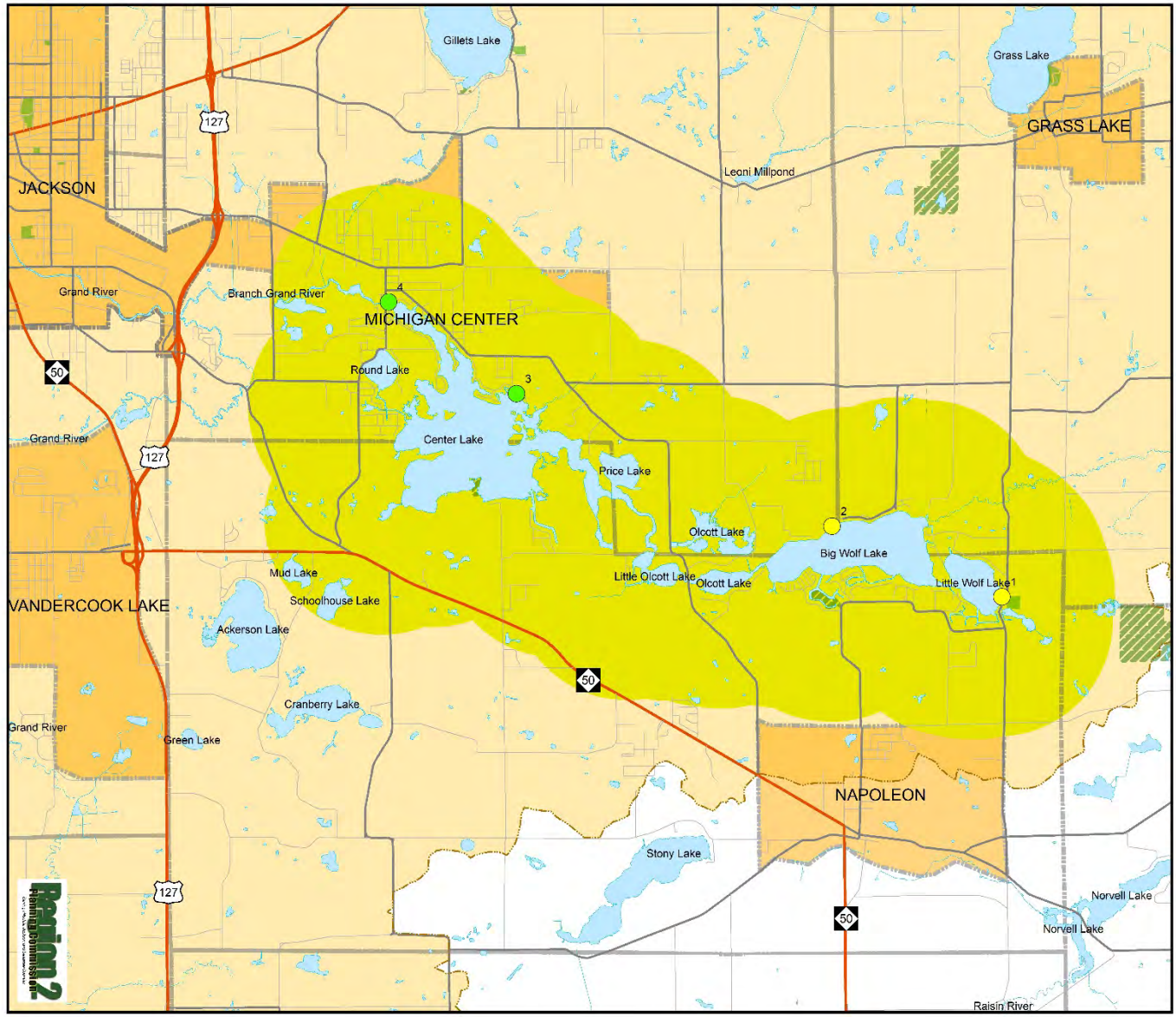
1. *Little Wolf Lake County Park*
Napoleon Township
2. *Camp Teetonkah*
Leoni Township

**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**
MAP 3.2
**CHAIN OF LAKES
WATER TRAIL**

LAUNCH SITE TYPES

- TYPE "A" SITES
- TYPE "B" SITES

1. LITTLE WOLF LAKE COUNTY PARK
2. CAMP TEETONKAH
3. CENTER LAKE BOAT LAUNCH
4. LEONI COMMUNITY PARK



SOURCE(S):
 - MICHIGAN DEPARTMENT OF NATURAL RESOURCES
 - MICHIGAN GEOGRAPHIC DATA LIBRARY
 - UPPER GRAND RIVER WATERSHED ALLIANCE



TYPE “A” ACCESS SITES (PORTAGE RIVER)

PORTAGE LAKE CAMPGROUND WATERLOO TOWNSHIP

Site Information

The Campground on Portage Lake is part of the Waterloo State Recreation Area. At over 20,000 acres, the recreation area is the largest such facility in the Lower Peninsula. The campground features a fishing pier, observation platform and a boat launch with a large parking lot.



Recommendation

Local water trail stakeholders should work with the DNR to provide additional paddling amenities to the access site. The access site could support a universally-accessible kayak launch. However, it would have to be located on the outside of the far-left dock so it wouldn't interfere with motorboat traffic. The accessible kayak launch could include a large floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough open shoreline area at this location to also accommodate staging on land. Areas adjacent to the turn-around could include a picnic table, kayak locker and an information kiosk. Together, these amenities help establish a “paddler's plaza” or focal point for paddlers wishing to access the lake. An accessible route should also be developed that would connect paddlers from the paved turn-around lot to the proposed launch. Portage River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk.

HAWKINS ROAD LEONI TOWNSHIP

Site Information

At this time, there are no formal paddling or access amenities at this site. However, the steering committee decided that if and when access is established, this site would make an ideal location for a fully developed access site. In addition, this site has been identified as the location for a portion of the Lake-to-Lake Trail, a 260-mile long non-motorized trail connecting the coastal communities of Port Huron and South Haven.



Recommendation

The opportunity to develop a shared trailhead that links both the Lake-to-Lake Trail and Portage River Water Trail is rare and should be pursued. The area between the Hawkins Road Bridge and the railroad bridge is large enough to accommodate an accessible kayak launch, parking area, staging area, picnic tables, kayak rack and information kiosk. Before any amenities are developed for the water trail, the steering committee should discuss if amenities (e.g., parking, restrooms, and picnic tables) could be shared and connected.

TYPE “B” ACCESS SITES (PORTAGE RIVER)

PORTAGE LAKE COUNTY PARK WATERLOO TOWNSHIP

Site Information

Portage Lake County Park lies on the eastern shore of Portage Lake. The 6-acre park has a picnic area, grills, portable restrooms, a playground, a swimming area and a boat launch.



Recommendation

Portage Lake County Park would make an ideal location for a universally-accessible kayak launch. The shallow and wide launch area and surrounding beach area would allow for an accessible launch that would not conflict with neighboring motorboat traffic. The accessible kayak launch could include a small floating platform near the launch bench and rail system to allow for greater mobility. However, there is enough beach and lawn area at this location to also accommodate staging on land. The site should include a picnic table, kiosk and a portable bathroom. The small parking lot could be kept in its original condition. However, an accessible route should also be developed that would connect paddlers from the parking lot to the proposed launch as well as the pavilion and bathroom. Portage River Water Trail signs should be placed near the accessible kayak launch (in view of paddlers on the water) and on the informational kiosk.

WOOSTER ROAD LEONI TOWNSHIP

Site Information

Access to the Portage River is provided by a small turn-out and parking area along Wooster Road, within the Phyllis Haehnle Memorial Audubon Sanctuary.



Recommendation

Local stakeholders would need to establish a cooperative agreement with the Audubon Sanctuary to develop additional amenities at this location. The steep banks along the river would require an accessible pathway to get paddlers safely down to the river's edge. Other amenities could include a formal access road, a port-o-john, picnic tables and trash receptacles. A Portage River Water Trail sign should be placed near the shoreline (or proposed dock). Additional signage should note the location of the launch and the turn-out on Wooster Road.

SUMMARY LIST OF TYPE “A” ACCESS SITES (PORTAGE RIVER)

1. *Portage Lake Campground*
Waterloo Township
2. *Hawkins Road*
Leoni Township

SUMMARY LIST OF TYPE “B” ACCESS SITES (PORTAGE RIVER)

1. *Portage Lake County Park*
Waterloo Township
2. *Wooster Road*
Leoni Township

**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**

**MAP 3.3
PORTAGE RIVER
WATER TRAIL**

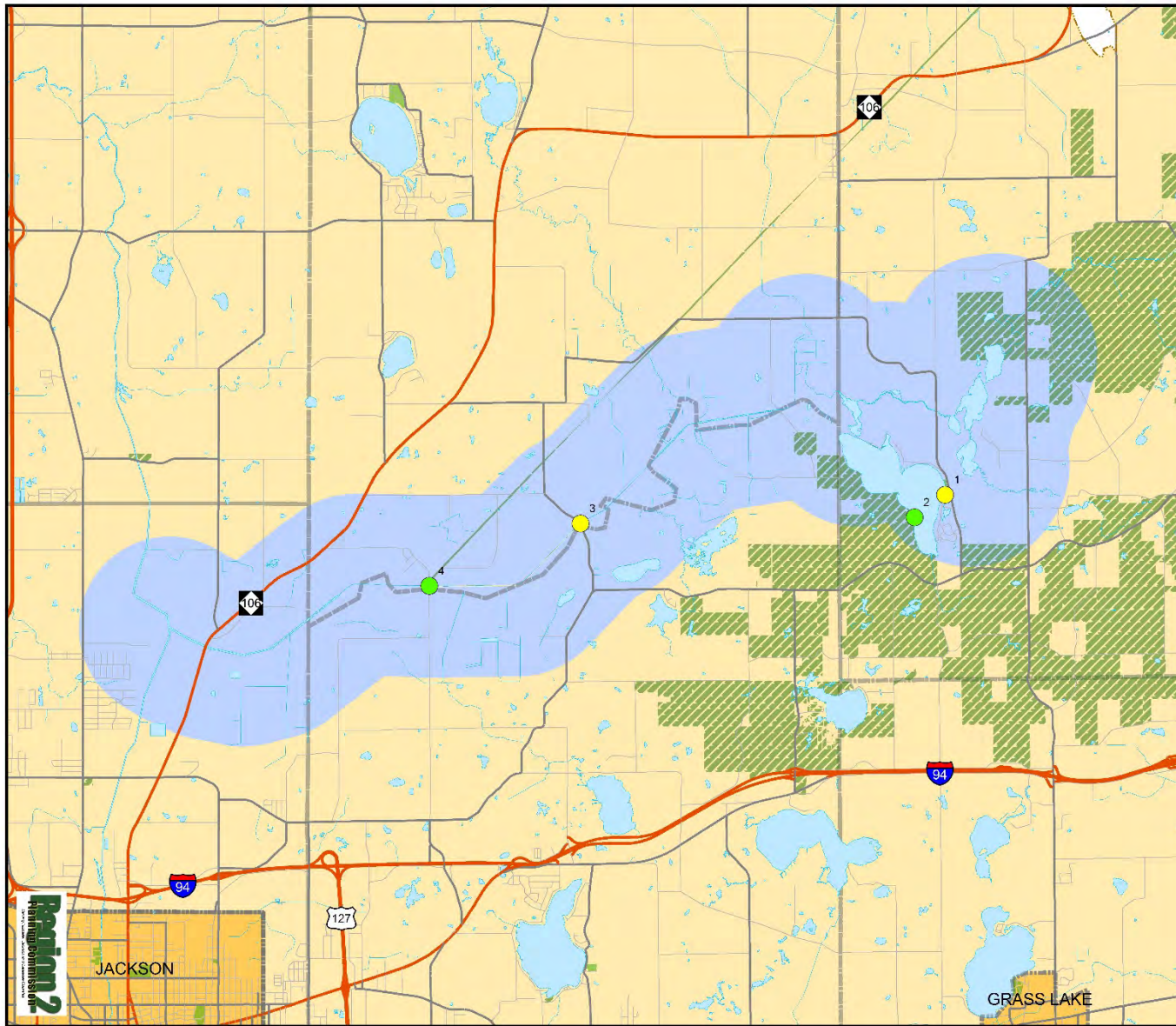
LAUNCH SITE TYPES

- TYPE "A" SITES
- TYPE "B" SITES

1. PORTAGE LAKE COUNTY PARK
2. PORTAGE LAKE CAMPGROUND
3. WOOSTER RD
4. HAWKINS RD

SOURCE(S):

- MICHIGAN DEPARTMENT OF NATURAL RESOURCES
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- UPPER GRAND RIVER WATERSHED ALLIANCE



UPPER GRAND RIVER WATER TRAIL DEVELOPMENT PLAN

Float Times and Distances

Determining the approximate float time and distance between access sites can help determine if there are not enough access sites along the river, where gaps may exist and where additional access sites (and supporting infrastructure) should be located. In addition, this information may be included in future paddling guides. Map 3.4 illustrates the average float times for segments of the Upper Grand River Water Trail. Depending on the skill level and watercraft used, float times between access sites may be slower or faster. Table 3.1 shows the mileage between each access site for the Upper Grand River, Chain of Lakes and the Portage River Water Trails.

Table 3.1 Proposed Water Trail Distance and Float Times between Access Sites

TRAIL GROUP	ACCESS NUMBERS	FROM ACCESS NAME	TO ACCESS NAME	MILEAGE	FLOAT TIME
Portage River	#1 to #2	Portage Lake County Park	Portage Lake Campground	0.4	30 min
Portage River	#2 to #3	Portage Lake Campground	Wooster Rd.	5.0	2 hr
Portage River	#3 to #4	Wooster Rd.	Hawkins Rd.	2.0	1 hr
Portage River	#4 to Upper Grand River	Hawkins Rd.	Upper Grand River	3.2	2 hr
Portage River	Upper Grand River to #16	Upper Grand River	Maple Grove Bridge	2.0	1 hr
Upper Grand River	#1 to #2	Liberty Mill Pond Township Park	Liberty Mill Pond Dam	0.2	12 min
Upper Grand River	#2 to #3	Liberty Mill Pond Dam	Jefferson Rd. at Meridian Rd. (US-127)	4.0	3 hr
Upper Grand River	#3 to #4	Jefferson Rd. at Meridian Rd. (US-127)	Meridian Rd. (US-127) near Reed Rd.	4.7	3 hr
Upper Grand River	#4 to #5	Meridian Rd. (US-127) near Reed Rd.	Loomis Rd.	2.8	1.5 hr
Upper Grand River	#5 to #6	Loomis Rd.	Summit Township Property	3.1	1.5 hr
Upper Grand River	#6 to #7	Summit Township Property	Vandercook Lake County Park	2.7	1.5 hr
Upper Grand River	#7 to #8	Vandercook Lake County Park	Ella Sharp Park	5.1	2.5 hr
Upper Grand River	#8 to #9	Ella Sharp Park	City-Owned Property (High Street-east bridge)	6.1	3 hr
Upper Grand River (Spur)	(#9a to #9)	5th Street Canoe/Kayak Livery (Proposed)	City-Owned Property (High Street-east bridge)	2.5	1.25 hr
Upper Grand River	#9 to #10	City-Owned Property (High Street-east bridge)	Riverfront Park	3.0	1.5 hr
Upper Grand River	#10 to #11	Riverfront Park	Jackson County Fairgrounds	0.7	18 min
Upper Grand River	#11 to #12	Jackson County Fairgrounds	Lions Park	0.5	18 min
Upper Grand River	#12 to #13	Lions Park	R.A. Greene Park/Jackson WWTP	1.3	1 hr
Upper Grand River	#13 to #14	R.A. Greene Park/Jackson WWTP	Parnall Rd. (northeast side)	0.7	30 min
Upper Grand River	#14 to #15	Parnall Rd. (northeast side)	GREAT Property	0.7	30 min
Upper Grand River	#15 to #16	GREAT Property	Maple Grove Bridge	3.2	1.5 hr
Upper Grand River	#16 to #17	Maple Grove Bridge	US-127 and State Rd.	5.5	3 hr
Upper Grand River	#17 to #18	US-127 and State Rd.	Trestle Bridge Access Site	4.8	3 hr
Upper Grand River	#18 to #19	Trestle Bridge Access Site	Tompkins Bridge	4.9	2.5 hr
Upper Grand River	#19 to #20	Tompkins Bridge	Baldwin Park	6.0	3 hr
Upper Grand River	#20 to #21	Baldwin Park	Gale Rd. State Land Area	4.4	2 hr
Upper Grand River	#21 to #22	Gale Rd. State Land Area	Smithville Dam (Smithville Park)	3.0	2 hr
Upper Grand River	#22 to #23	Smithville Dam (Smithville Park)	McArthur Park	1.4	30 min
Upper Grand River	#23 to #24	McArthur Park	Mill Pointe Park	0.8	30 min
Chain of Lakes	#1 to #2	Little Wolf Lake County Park	Camp Teetonkah	1.7	1 hr
Chain of Lakes	#2 to #3	Camp Teetonkah	Center Lake Boat Launch	4.6	2 hr
Chain of Lakes	#3 to #4	Center Lake Boat Launch	Leoni Community Park	1.7	1 hr
				90.9	48.75 hr

SITE SPECIFIC IMPROVEMENTS - OBSTRUCTIONS

The following is a list of recommended improvements at each physical obstruction along the Upper Grand River. These recommendations should be used as a general framework and planning tool for the development and implementation of improvements at each obstruction. While some recommendations might be easier to implement, further design work will be required to carry all these recommendations to implementation. It is also important to note the extent, funding and timeline for such improvements will require the approval of the owner of each obstruction.

Liberty Mill Dam *Liberty Township*

As previously noted in Chapter One, areas along this part of the river were deemed suitable for paddling, but only at certain times of the year when the water level of the river is high. Paddlers currently navigate around the dam via a well-maintained park-like area owned by the Liberty General Store. Additional infrastructure (e.g., kayak slide and small dock platform) would likely be needed on the pond to help get kayakers safely in the water. A small dock platform would also be helpful to get paddlers back in the water upstream of the dam.



5th Street Dam *Leoni Township*

As previously mentioned, the 5th Street Dam primarily maintains the lake level of Center Lake. Most paddlers access Center Lake via the Leoni Community Park boat launch. Paddlers looking to continue along the North Branch of the Upper Grand River must cross the street to access the river adjacent to the Lakeside Convenience Store. A small dock platform could be constructed just west of 5th street, downstream of the dam and on the opposite side of the convenience store to allow paddlers to get off the river. A small path and another dock platform could be installed just after the dam to allow paddlers a better way to get back on the river. These new amenities would eliminate the need for paddlers to carry their boats across 5th Street. There is an additional low-head dam below the 5th Street Dam and Downtown Jackson, which can sometimes be paddled over, but may be considered for future removal.



Leoni Township

Areas upstream of Vandercook Lake (approximately 19.5 miles to Grand Lake) are deemed suitable for experienced paddlers, but are only accessible at certain times of the year when the water level of the river is high. While the development of amenities to support paddlers along this stretch of the river is still warranted, initial investment in amenities should be directed to segments of the river downstream of Vandercook Lake.

Smithville Dam Hamlin Township

Paddlers currently navigate around the Smithville Dam via an informal take-out and put-in at Smithville Park, on the north side of the river. In addition to the river access, Smithville Park features an area to fish, picnic tables and a well-known artesian well that has flowed continuously for over 175 years. Paddlers can access the park and the river by a small parking lot off Smithville Road. Hamlin Township has discussed providing additional amenities at this park and regional advocacy groups have discussed options for dam removal. The steering committee should continue to offer support, encouragement and assistance to Hamlin Township, local dam removal advocates and MGROW in the development of improved paddling amenities at this site.

State Street Dam Eaton Rapids

The State Street Dam was one of three (now two) dams located on the Grand River in downtown Eaton Rapids. At this time, there is no formal put-in or take-out near the dam. Paddlers must carry their kayak or canoe out of the water and negotiate through vacant city property and a large parking lot to get around the dam. The steering committee should continue to offer support, encouragement and assistance to the City of Eaton Rapids, local dam removal advocates and MGROW in the development of a sensible portage around the dam. The potential elimination of the dam may also be an option in years to come.

West Low Head Sanitation Dam Eaton Rapids

As previously noted, local stakeholders, paddling advocates and public officials from the greater Eaton Rapids area have removed the West Low Head Sanitation Dam in downtown Eaton Rapids and replaced it with a “natural channel design Modified Wedge-W.” The new design has improved water quality, created fish passage and created a series of rapids for recreational paddlers. The Steering Committee should continue to support and offer encouragement for this redevelopment project, including a new livery and outdoor recreation center planned for the spring of 2017.

East Low Head Sanitation Dam Eaton Rapids

The East Low-Head Sanitation Dam, located just downstream from the new natural river channel is slated for new protective measures in the coming years.





Bridges and Culverts

As previously noted in this development plan, there are 58 bridges along the Upper Grand River, the North Branch of the Upper Grand River and the Portage River. The height, use and materials of the 58 bridges varies significantly. For example, bridges over highways (e.g. US 127) provide a great deal of clearance for paddlers. Smaller bridges, on less traveled road may be extremely low or include culverts. In some instances, these smaller bridges are so low that it requires paddlers to portage around them. For example, the “Toy House” railroad bridge in Downtown Jackson is not safe under high water conditions. It will be helpful for local water trail stakeholders to identify which bridges require a portage on any future water trail maps. In addition, water trail signs and mile markers could be placed on bridges.



W
A
T
E
R

Photos: Jim Seitz

TRAIL IDENTITY AND DEVELOPMENT

Trail Branding and Identity

As the Grand River Water Trail gets developed, a distinctive logo should be established. The logo should represent a unique brand and identity for the Upper Grand River Water Trail, setting it apart from other trails (both water and land) in the region. The logo should also help reflect the water trail’s identity throughout future planning and development efforts — on signage at access points, online and on printed materials (i.e., maps). Creating a logo and brand helps to establish the trail as a legitimate trail system while developing a positive, attractive image that the public can recognize and embrace. Similar branding efforts should be made regarding the Chain of Lakes and Portage River Water Trails. However, because the three water trails are connected, some of the design elements (e.g., size, shape, image, etc.) of the logo should be similar. In addition, it will be important to coordinate signage design elements with the Middle and Lower Grand River Water Trails.

Trail Media

Trail Map

One of the most critical components of a water trail system is to develop materials that identify the routes, features and access sites of the water trail. In most instances, unlike a land trail, a water trail does not have a built route one can easily follow. Navigating a water trail requires a map to provide the paddler with information about the water system. Paddlers are dependent on the information they gather prior to getting on the water. The Steering Committee should

work with paddlers to develop a water-resistant map that also has historical, cultural and local/regional information for trail users.

Website

Once the water trail map has been developed, all the trail and related information should be placed on the Michigan Water Trails website at <http://www.michiganwatertrails.org>.

Priority Segments

Based on feedback from paddlers and local stakeholder groups, the steering committee has determined that the following five segments of the water trail shall be a top priority. As such, in most instances, infrastructure improvements along these segments should be developed before other areas. In addition, these segments (along with a detailed description) could be more prominent on the trail map. Map 3.4 illustrates the priority water trail segments.

Upper Grand River Water Trail

1. Vandercook Lake to Ella Sharp Park
2. Ella Sharp Park to High Street to East High Street
3. East High Street to Riverfront Park
4. Riverfront Park to Lions Park

Upper Grand River Water Trail – North Branch

5. Leoni Township Community Park to East High Street / East Bridge

**UPPER GRAND RIVER
WATER TRAIL
DEVELOPMENT PLAN**

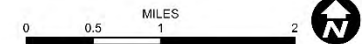
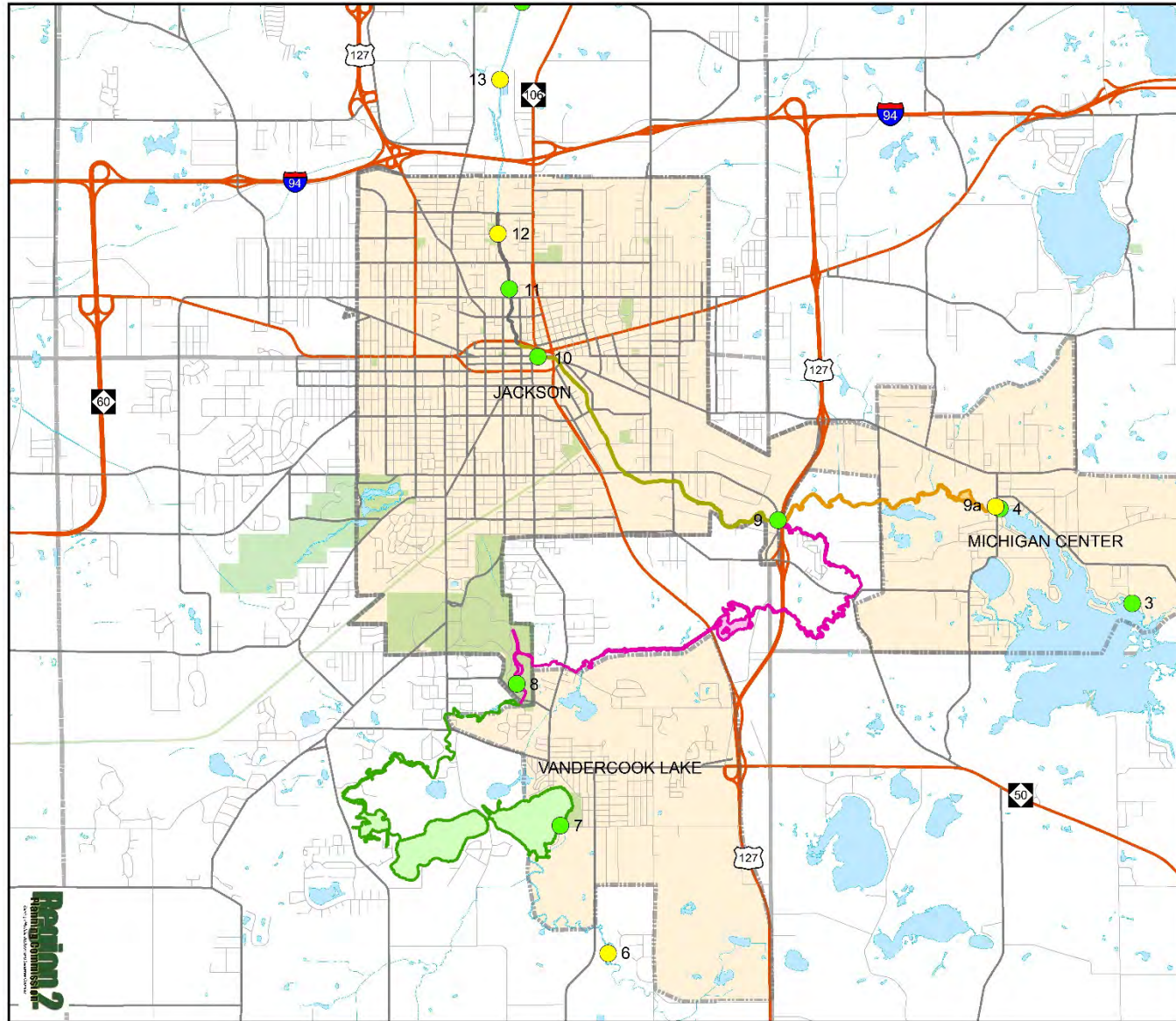
**MAP 3.4
PRIORITY
SEGMENTS**

PRIORITY SEGMENTS

- 0.5 HOUR
- 1.5 HOURS
- 1 HOUR
- 3 HOURS
- 3 HOURS

LAUNCH SITE TYPES

- TYPE "A" SITES
- TYPE "B" SITES



Trail Signage

One of the most basic and important physical improvements for each access site is signage. Signage helps to provide a sense of arrival and can share important information about the entire trail system, guide users to their next destination, promote river etiquette (including “leave no trace”), promote safety, and educate users about the historical, cultural and environmental assets of the community. It will be important to develop a comprehensive wayfinding and trail signage system for the water trail. Signs at most of the Type “A” access sites should be in the form of a large kiosk, whereas signs at other access sites might be smaller. Water trail access sites should also be placed on wayfinding signs throughout the region. These may be on municipal wayfinding signs (e.g., Jackson), or signs on county roads. Mileage and location signs could also be placed on bridges upon approval from the local and regional road authority.

Education and Safety

Paddler education and safety are very important components of a water trail on the Upper Grand River. While paddlers will be using the trail at their own risk, injury or loss of life are often avoidable. There are good sources of paddler education and training that should be made available to users of the proposed water trail. 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 paddle craft inspections. The Coast Guard offers these paddle stickers and paddle craft 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 kiosks at access sites. An educational and safety program that utilizes these types of materials should be developed.

In addition, as noted during the stakeholder interviews, local officials and the Steering Committee should continue to talk and work with local public safety agencies to raise awareness about the water trail and talk about ways to mitigate and avoid injury. A preliminary discussion revealed an interest in placing numbered safety markers along the water trail that would be linked to a GPS program and make it easier for public safety agencies to find paddlers in distress.

Local officials should also work with local paddlers, the Watershed Alliance and GREAT to establish a water trail ambassador program. Ambassadors would paddle sections of the river at least three times a year – in the spring, mid-summer and fall and make general observations (with pictures as necessary) about the conditions of the water trail launches, signs, trash, woody debris, water levels and trail etiquette. All information could be noted and cataloged with the management entity or municipal parks department. In addition, ambassadors could help answer questions from the public about the river and water trail, help to plan trips and give advice about hazards and teach proper trail etiquette.

Paddling and Water Trail-Based Programs

As you will see later in this chapter, many of the economic development and marketing strategies noted in this document are based on drawing in visitors from beyond the local market. However, the full potential of the water trail will not be realized unless the local and regional population base is aware of it and knows how to access it. The Steering Committee

Education & Safety

It will be important to work with public safety agencies to raise awareness about the water trail, especially in the Chain of Lakes where the opportunity for conflicts with motorboats is common is higher.



Photo: Paul ReinSchler

needs to make sure local officials and residents are aware of the water trail and the different paddling experiences it will offer. GREAT should continue to host paddling trips that demonstrate the unique paddling experiences on the river. The Steering Committee should also work with historical and civic organizations to help identify and promote cultural and historical sites along the water trail. Much of this type of information can be included on the trailhead kiosks and other marketing materials.

It can also be helpful to develop a working relationship with the local media. It will be important to explain to them what the Steering Committee is doing and how they can help. Speaking at local civic and community service meetings and having a presence at community events and festivals is also a great way to engage with the community.

Leveraging the Water Trail for Economic Development

Water trails can have a significant impact on the local and regional economy. Water trails help attract and support tourism and new business opportunities. In addition, local residents often spend money on trail-related activities and businesses. The outdoor recreation industry is now recognized as one of the leading economic drivers in the United States, surpassed only by pharmaceuticals and motor vehicles and parts in terms of consumer spending. In addition, 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 2013 report from the Outdoor Industry Association, spending on outdoor recreation supports 6.1 million direct jobs and \$80 billion in federal, state and local tax revenues. 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.”

According to the Outdoor Industry Association, paddlesports, largely fueled by stand-up paddling and kayaking, are the fastest-growing outdoor activities in the United States. A 2015 Special Report on Paddlesports prepared by the Association notes that more than 21.7 million people — or 7.4 percent of Americans — participated in paddling activities in 2014. Kayaking, which is the most popular form of paddling, had approximately 13 million participants in 2014. The Association also notes that the percentage of Americans participating in kayaking increased from 3 percent in 2010 to 4.4 percent in 2014.

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. In 2014, kayakers across the United States took an average of eight trips during the year, contributing to 105 million trips overall.

In Michigan, the outdoor recreation industry generates \$18.7 billion in consumer spending annually. A comprehensive understanding of consumer spending on paddling in Michigan is still largely incomplete. However, *Michigan Blue Economy*, a 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 2013, the Huron River Watershed Council commissioned an economic impact analysis 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 from current users, including \$33 million in Washtenaw County alone. The report also went on to note that studies show that the average paddler will

travel roughly 79 miles a day for a day trip and 117 miles for an overnight trip, meaning paddlers throughout Southern Michigan as well as portions of Indiana, Ohio, and Ontario would travel to enjoy a multi-day trip on the Grand River Water Trail.

According to a report from the River Management Society, which summarized notable findings on the economic impact of water trails in three different communities in the United States, “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 noted 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.

As the link between water trails and economic development is better understood, communities along the Upper Grand Water Trail (especially Michigan Center, Jackson and Eaton Rapids) should look for ways to capitalize on the water trail to maximize trail-based tourism for future economic development opportunities — that is, to redefine the community as a “Trail Town.” The Trail Town concept was first developed by the Allegheny Trail Alliance, a coalition of seven different trail organizations along the Great Allegheny Passage, a 150-mile multi-use trail running through Pennsylvania and Maryland.

A Trail Town is an active, attractive and interesting place with accessible and comfortable spaces, hosting a variety of activities and promoting social interaction and a strong sense of place. A Trail Town should meet both the needs of the trail users and residents of the community. A Trail Town has the physical amenities that support trail users such as accessible launches. A Trail Town also has the business amenities to support day-trip users (e.g., kayak rental) and overnight trail users (e.g., campground, casual restaurant and laundromat). Using the basic elements of the Trail Town strategy, local officials and economic development officials can help create local and regional tools for water trail-based economic development.

Basic Elements of a Trail Town Strategy

- Entice trail users to get off the trail and go into town.

UPPER GRAND RIVER WATER TRAIL DEVELOPMENT PLAN

- Welcome trail users to your town by making information about the community readily available at the trail.
- Make strong and safe connections between your town and the trail.
- Educate local businesses on the economic benefits of meeting trail tourists' needs.
- Recruit new businesses or expand existing ones to fill gaps in the goods or services that trail users need.
- Promote the “trail-friendly” character of the community.
- Work with neighboring communities to promote the entire trail corridor as a tourist destination.

Many of these elements could be incorporated into places along the Upper Grand River where the connection with the urban environment is strong, especially at Riverfront Park and Mechanic Street. Additional connections could be made along the river as it winds through Michigan Center and Eaton Rapids. The following images illustrates the trail-to-town connection in downtown Jackson.



Gateway

The Gateway is the point at which trail users enter the central business district. The Gateway should welcome trail users and visitors into the central business district. The “summer night tree” sculpture at this location is a great way to denote the downtown. A way-finding kiosk at this location would be ideal.

Pathway

The Pathway is the corridor that trail users follow from the trailhead to the central business district. Local officials should continually assess the Pathway for cleanliness, accessibility, safety, lighting, physical condition and interaction with traffic.

Trailhead

The Trailhead is the point at which the trail user may come into contact with the community for the first time and the point at which the trail user will decide whether or not to enter into the downtown. Therefore, it is important to make it welcoming and provide information about the downtown.

APPENDIX A. BRIDGE CROSSINGS

1. South Jackson Road
2. Liberty Road
3. Culver Road
4. Gates Road
5. Jefferson Road
6. Meridian Road (US 127)
7. Reed Road
8. Meridian Road (US 127)
9. Loomis Road
10. Draper Road
11. Browns Lake Road
12. Glenshire Drive
13. Badgley Road
14. Stonewall Road
15. Probert Road
16. Francis Street
17. Brooklyn Road
18. Meridian Road
19. US 127
20. South Street
21. US 127
22. High Street
23. High Street
24. Losey Street
25. Bridge Street
26. Liberty Street
27. Louis Glick Highway
28. Francis Street
29. Mechanic Street
30. Louis Glick Highway
31. Trail Street
32. Ganson Street
33. Ganson Street
34. Monroe Street
35. I-94
36. Parnall Road
37. Maple Grove Road
38. Berry Road
39. Lansing Avenue
40. US 127
41. Churchill Road
42. Rives Eaton Road
43. Tompkins Road
44. Old Plank Road
45. Onondaga Road
46. Kinneville Road
47. Gale Road
48. Waverly Road
49. Smithville Road
50. State Street
51. Knight Street
52. Falahee Road
53. 5th Street
54. Napoleon Road
55. Portage Lake Road
56. Dunn Road
57. Wooster Road
58. Cooper Street

APPENDIX B. GENERAL COST GUIDELINE

The following table provides a **general** cost estimate for water trail amenities. Cost estimates were generated from water trail plans in other areas of Michigan as well as industry buying guides and don't necessarily reflect the cost of products manufactured and fabricated within greater Jackson County. The table should be used by the steering committee to establish "ball-park" figures for the recommendations outlined in this plan. A more accurate cost estimate could be created following additional design work, engineering and material/equipment specification. For example, costs of site furnishings (e.g., kayak rack, benches, signs, kayak launch) could vary significantly (up or down) depending on the materials or products specified. Furthermore, the physical constraints of the identified access sites (e.g., slope, soils, riverbank) could significantly vary costs.

Drinking Fountain		
Type	Estimated Cost	
Freeze-free hand pump and well	\$ 7,000	
Freeze-free basic drinking fountain and electric well	\$ 10,000	
Freeze-free multi-use fountain and electric well	\$ 12,000	
Shelters		
Type	Estimated Cost	
Small shelter on aggregate, pavers, or concrete pad, room for single bench or table	\$ 10,000	
Medium-sized shelter on aggregate, pavers, or concrete pad, room for 2-6 benches or tables	\$ 50,000	
Large shelter on aggregate, pavers, or concrete pad, room for 6+ benches or tables	\$ 150,000	
Picnic Table		
Type	Estimated Cost	
Wood-planked. Galvanized steel table	\$ 1,000	
Powder-coated decorative steel table and benches	\$ 5,000	
Benches		
Type	Estimated Cost	
Wood or recycled plastic lumber, backless, armless, steel supports	\$ 1,000	
Powder-coated decorative steel benches	\$ 2,500	
Trash Receptacles		
Type	Estimated Cost	
Expanded steel or steel drum receptacle	\$ 500	
Slatted, plastic-coated steel receptacle	\$ 1,000	
Decorative powder-coated steel receptacle	\$ 2,000	

Restrooms	
Type	Estimated Cost
Port-a-Potty	\$ 5,000
Compostable Pit Toilet	\$ 50,000
Full service restroom with septic and running water	\$ 300,000
Launch	
Type	Estimated Cost
Natural embankment - no improvements	No Cost
Rubber mats on existing concrete launch	\$ 1,000
Gravel launch and minor stabilization	\$ 20,000
Small concrete launch and minor stabilization	\$ 50,000
ADA accessible launch	\$ 50,000
Road Surface Improvement	
Type	Estimated Cost
24' wide gravel road	\$200/linear foot
24' wide asphalt road w/gravel shoulder	\$300/linear foot
Parking	
Type	Estimated Cost
Gravel lot or gravel shoulder	\$9/square foot
Asphalt lot or paved shoulder	\$12/square foot
Porous pavement lot or paved shoulder	\$15/square foot
Water Craft Storage	
Type	Estimated Cost
Temporary kayak storage rack	\$ 5,000
Perminanet kayak locker	\$ 8,000
Signs	
Type	Estimated Cost
Regulatory signs	\$ 200
Vehicular directional sign	\$ 3,000
Interpretive sign	\$ 2,000
Small entry sign	\$ 3,000
Large entry sign	\$ 10,000
Minor kiosks	\$ 5,000
Major kiosk	\$ 15,000

APPENDIX C. INCLUSIVE UNIVERSALLY ACCESSIBLE AND ADA COMPLIANT WATER TRAIL LAUNCH FEATURES



Access Recreation Group, LLC
 Cindy Burkhour, MA, CTRS, CSP
 2464 Leepigliner Drive, Jenison, MI 49428-0123
 Phone (616) 668-9109 Mobile (616) 668-2378
AccessRecreationGroup@luna.com

Inclusive Universally Accessible and ADA Compliant Water Trail Launch Site Features

Paddlers of all abilities want to launch and land smoothly without capsizing or damaging their watercraft. They need firm surfaces that support their movement from their arrival place to the launch at water's edge and sufficient space to accommodate the length of their watercraft during put-in and take-out. In addition, paddlers must be able to stabilize their watercraft during transitions into and out from their vessel and into and out from the water. It is important to consider universal design practices in the development of the complete water access facility, from car to launch. Simply put, universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Launch sites that provide inclusive universal accessibility for everyone, including paddlers with disabilities, have the following site design features and amenities that are easy to use by everyone together:

- Improved surface accessible route with slopes no greater than 5% & at least 6' wide from parking to restrooms & water source, information kiosks, and to launch at water's edge. Route widths 6 to 12 feet wide best accommodate a two person watercraft carry and it provides enough space for two people to pass by.
- Routes that have switch back turns need level landings at every change of direction and the landing must be large enough to accommodate a two-person carry down w/vessel to make the turn without stepping off the route surface or encountering elevated barriers such as handrails or landscaping.
- Gangway and ramp slopes that are below 8.33%, which is the maximum slope allowed in the Americans with Disabilities Act Accessible Design Guidelines (and the hardest slope allowed by law).
- Accessible restrooms with at least one universally accessible single-user unisex restroom so opposite gender care givers can provide assistance, there is enough interior space for someone using a walker or wheelchair to maneuver &/or parents of young children have space for strollers & to assist kiddos.
- Accessible potable water source that is approachable on all sides and that is operable with one hand, doesn't require pinch grasp or wrist twist, and requires less than 5#s of force to operate. Water spigots for filling water bottles where the water flow stays on so you can fill a bottle with one hand.
- Kiosk information provided in accessible formats and approachable via accessible surface surrounding the kiosk.
- Accessible parking space(s) located nearest the accessible route to the launch at water's edge, including both car and car/trailer parking spaces.

- At least one accessible design picnic table, grill, etc. all of which are useable by everyone together and located on an accessible route.
- Universally accessible canoe/kayak launch system such as the EZ Launch that is connected to the accessible route; at least 25 feet long to allow paddlers "dry" access to entire length of their watercrafts when preparing to enter/exit the craft prior to launching; a means of transfer/boarding assistance such as boarding bench that centers the paddler over the craft to enter/exit; pull rails & rollers to assist moving the vessel into and out of the water on a surface that stabilizes the craft and doesn't damage the crafts bottom.
- Indicate accessibility features on maps, web-sites (this could be a drop down list with descriptions). Launch sites that meet all of the above could be identified by the Access to Recreation logo on the signs on the water trail and on information kiosks. Web-sites and maps could list features. Ex A2R logo = parking, restrooms, picnic, water, EZ Launch, etc.
- If there is NOT an EZ Launch... a good description & photo(s) of the water's edge exit/entry point should be provided (so the paddler can decide if it's useable for them) along with information about any accessibility features at the location. This can be on the web-site to help paddlers planning. On maps indicate fully accessible sites with the A2R logo and indicate those sites that only meet minimal ADA access & provide a list of features that are.

We are currently working to put accessibility information on the greatlakeswatertrail.org web site which will identify the location of all EZ Launch locations in the great lakes region!