Trail Building Law and Policy

TRAIL BUILDING LAW AND POLICY

A Michigan Manual

BOB WILSON AND ANNA LEE

Michigan State University Libraries
East Lansing, Michigan

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COVER IMAGE CREDITS

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PREFACE

This course book is meant to accompany the Michigan Trails—Trail Building, Law and Policy course currently being taught in the Department of Community Sustainability at Michigan State University. The course provides students with opportunities for learning about trail policy and law and a broad array of trail building and management topics that will familiarize students with the emerging national and state movement on trails.

Students will become familiar with statutory and common law issues associated with trails; understand how trails are managed and promoted; learn about the organizations that help build trails; study historical, cultural, and natural resources issues associated with trails; and explore the future of trails both in Michigan and nationally.

Students will come to appreciate the important lessons that trails provide in helping ensure that citizens have sustainable routes for transportation, recreation, and cultural connections and how both the past and future of trails are linked with meeting public trust responsibilities for providing access to all people.

Importantly, the course features direct work with the Michigan Department of Natural Resources and their trail program in their efforts to continue to enhance and improve Michigan trails. Students have the opportunity to work with the department in helping

develop master trail plans and conducting a variety of trail surveys and research work. These opportunities enrich the learning experience and help provide for a network of job opportunities for the students.

ABOUT THE AUTHORS

Bob Wilson

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Bob is currently an instructor in the Department of Community Sustainability (CSUS) of Michigan State University (MSU), where he teaches three courses: Environmental Law, Environmental Policymaking and Michigan Trails—Trail Building, Law and Policy.

Bob is a past-chairperson of the Michigan Trails Advisory Council appointed by Governor Whitmer and was formerly the Executive Director of the Michigan Trails and Greenways Alliance. Prior to that served he as Policy Advisor and Counsel to the Michigan Senate Natural Resources and Outdoor Recreation committees for 28 years. Bob has a law degree from Cooley Law School, and both a Master of Business Administration (MBA) and a Bachelor of Arts in History and Philosophy from MSU. Bob is an avid trail user, enjoying kayaking, trail running, mountain biking, and hiking, on Michigan's trails.

Anna Lee

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Anna is a public policy professional who works primarily on topics like environmental protection, outdoor recreation, and sustainable tourism. She holds a graduate degree in Sustainable Tourism and Protected Areas Management and an undergraduate degree in Parks and Recreation. In her current role on the energy and environment team at Public Sector Consultants (PSC), she helps clients explore and adapt to the complex and ever-changing environmental policy landscape. Prior to joining PSC, she served as a research analyst for the Michigan Legislature, where she provided state legislators and legislative staff with objective, nonpartisan research. Outside of work, she is an avid equestrian trail user and advocate for sustainable trail use and management. Anna is an active member of multiple trails-focused organizations and currently serves as the Secretary of the Michigan Horse Trails Association and the Statewide Tourism Representative on the Michigan Department of Natural Resource's Equine Trails Subcommittee.

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A special acknowledgment to two of the states most notable trail leaders, **Mike Levine** and **John Calvert**, of the Mike Levine Lakelands Trail State Park.

Mike Levine. By Bob Wilson, CC BY-NC 4.0.

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DEDICATION

A special note of thanks to the Trail Community of Michigan and their enduring commitment to building a nation's leading Trail state. I'd also like to thank my family for their support and encouragement over the years including my mom Mary Jane Wilson, and my wife Cathy Wilson, both strong and impactful role models for public service.

—BOB WILSON

I dedicate this book to all the hard working volunteers and trail blazers who have contributed to making Michigan "the Trails State," and those yet to come.

—ANNA LEE

LEGAL AND CONTENT DISCLAIMER

This course book is not meant to provide legal advice to the reader. It is intended to provide general reference to key statutes in Michigan that likely will be important and relevant to individuals and organizations that are either considering or are actively engaged in trail development and management in Michigan. This course book should not be used as a substitute for the advice of a competent attorney admitted or authorized to practice in a specific jurisdiction.

Although the authors and publisher have made every effort to ensure that the information in this book was correct and properly referenced and sourced, the authors and publisher do not assume and hereby disclaim any liability to any party for any loss, damage, or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident, or any other cause.

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FOREWORD

Why do we have publicly accessible trails?

The " Why" is often overlooked as we can take for granted the real value of trails. In my perspective, public outdoors recreation enables humans to have "Lifelong Memories". We, as public providers, work to create quality outdoor recreation atmospheres that will allow people with diverse interests to engage in outdoor experiences.

What is done to enable these experiences to be created, is to provide quality opportunities for all levels of ability. Trails are special corridors that connect people to the many landscapes and natural resources that cannot be experienced in a car. These include motorized and non-motorized trail types that also provide year-round experiences. The landscapes must be respected so the trails are compatible with the various environments. Trails must be built to a sustainable standard and to meander throughout creating adventure, challenge, and access to unique destinations.

Some trail users seek fitness and competition such as mountain bikers and trail runners which have become a mainstay. The evolution of equipment has opened up winter biking with the introduction of Fat Bikes for example.

Equestrian trail users are unique, as they are riding animals that create a different perspective and require appropriate trails and accommodations. Trail riding is a popular activity that is often coupled with camping. Longer distance rides, accessing special destinations, and rides along sand beaches are sought after for these activities.

Motorized trails involve off-road vehicles including motorcycles. These trails are generally separated to accommodate both the operation and desired experiences. With the climate changes, the seasons have changed and ORV use has continued to increase. This has resulted in advocacy to expand the trail system. Snowmobiling has been a strong tradition in Michigan and northern climate states, however, climate change has impacted consistent snowfall resulting in a decline in riding days and the number of riders.

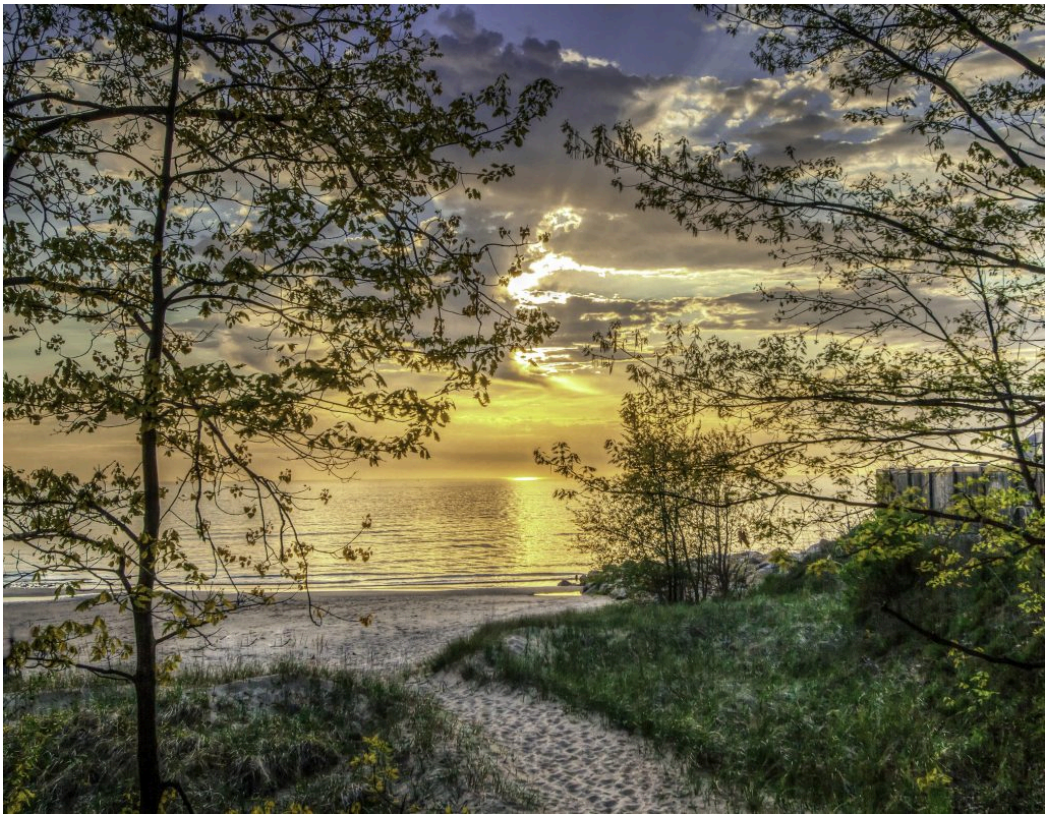
Water trails have evolved as the kayaks have exploded in sales creating a demand for special routes to experiences that are linked to various destinations.

Trails, like many parks and recreational destinations, stimulate the tourism economy, create a sense of place, provide people of all abilities an opportunity to engage in outdoor experiences and contribute to the quality of life. How we provide all of this to the public requires extensive partnerships, reliable funding, public corridors open to the respective users, law enforcement, and well-planned and sustainably-built trail corridors.

The systems approach is critical. So with all that said, in the end, we all need to recall the WHY and that is to ensure we aspire to create "LIFELONG MEMORIES " with every decision that is made. Happy Trails!

Ron Olson
Chief of the Parks and Recreation Division
Michigan Department of Natural Resources

INTRODUCTION



Deerlick Creek Beach, South Haven Township Park. © South Haven CVB. All rights reserved. Used with permission.

Michigan has many symbols that depict the importance of its natural resources and the state's focus on conservation of those resources. One such symbol is the state's flag, which was adopted in 1911, and contains three Latin mottos: *"E Pluribus Unum"* ("Out of many, one"), *"Tuebor,"* ("I will defend"), and *"Si Quæris Peninsulam Amœnam Circumspice,"* ("If you seek a pleasant peninsula, look about you"). Taken together, they embrace an enduring commitment to preserve and celebrate the natural grandeur of the state, its history, and its people.

"Flag of Michigan" is in the Public Domain.

During the 1962 Michigan Constitutional Convention, delegates gathered in Lansing to frame a proposed Constitution. The delegates specifically recognized that it was the legislature's duty to protect and maintain the public health and welfare of Michigan's natural resource base for the benefit of the state's people. One of the results of the debates that occurred during the convention was the eventual adoption of Article IV, Sections 51 and 52 of the Michigan Constitution of 1963:

> "The public health and general welfare of the people of the state are hereby declared to be matters of primary public concern. The legislature shall pass suitable laws for the protection and promotion of the public health."
> **—ARTICLE IV, SECTION 51**

> "The conservation and development of the natural resources of the state are hereby declared to be of paramount public concern in the interest of the health, safety and general welfare of the people. The legislature shall provide for the protection of the air, water and other natural resources of the state from pollution, impairment and destruction." **—ARTICLE IV, SECTION 52**

Both provisions contain language that is consistent with the Public Trust Doctrine, which was first developed as a Roman code to protect access to navigable waters. The doctrine was further developed later in both English and Colonial law. Common law in the United States has consistently maintained that the Public Trust Doctrine exists to protect the public's long-

term access to a healthy and sustainable natural resource base. This affirmative duty to protect access to the natural environment rests with the government and has been applied in various states to surface water, bottomlands, scenic lands, and historical/archaeological resources. All of these resources are capable of being protected from alienation, dilution, and diminution. In times of changing federal and state laws that can result in the homogenization of each state's uniqueness, we must remind our policymakers that Michigan's special lands and waters are deserving of special protection, and as such, the state has much to gain or lose in this challenge.

Van Buren Trail. © South Haven CVB. All rights reserved. Used with permission.

Michigan's land and water trails programs, made possible by partnerships of federal, state, and local efforts, and supported by the Michigan legislature, is a refreshing reminder that we can all take part in conserving the natural resources and public health pursuant to the state's Constitution.

As we place our focus on trails and the people that build, manage, and maintain them, we all can play an active role in keeping our lands and waters open to sustainable access for our residents. Building and maintaining trails for public health, greenways and open space, and preserving our sense of place, history, and culture are all benefits of this multi-faceted effort.

As we face new challenges and opportunities, isn't it fitting for the people of this state to embark on a renewed journey to maintain the special place that we call Michigan by recognizing, respecting, and supporting our trails? It is my hope that this course book and the lessons to be found within it can help stir and grow a new generation of trail leaders and advocates in Michigan.

—Bob Wilson

1.

THE ROLE OF HISTORY IN MICHIGAN'S TRAILS

"Sharing the history of a place creates an added dimension for trail users. It's like adding texture to a smooth surface. The opposite of a generic experience."

"The addition of heritage interpretation enhances the trail experience by strengthening the connection between people and place. To illustrate this, think of the landscapes and communities that a trail passes through as a page in the middle of a book. In order for that page to make sense, you need to know what the previous chapters say. That's what heritage trails provide—context for these places."

—Dan Spegel, Michigan DNR Heritage Trails Coordinator, Guest Speaker in CSUS 491 Michigan Trails

Chapter Objectives and Goals

In order to appreciate Michigan's trail system, it is important for students to have an understanding of the history of trail use in the state and to be able to appreciate the significant cultural and historical legacy of trail use by Native Americans and early European settlers. In addition, students also need to be aware of the important role in trail management that telling history along the trails plays in providing enriched trail experiences.

Key Questions to Consider as You Read this Chapter

1. Several key Native American trails became the foundation for major current highways and roads—what prompted that development?
2. What do we know about water trails and why did Native American tribes prefer them to land trails? What are their connections to commerce for European settlers?
3. What current wetland practice led to the demise of many water trails in Michigan?
4. How did trails help to develop early Michigan as a territory?
5. Railroads became the preferred mode of early mass transit, and also interestingly the foundation for many of our current trails. How did this come about?
6. What key Michigan statute helps promote both trails and trail use? Why is this statute so important for Michigan?
7. What are the main trails in Michigan that were formed from railroad conversions? What are some advantages and disadvantages of utilizing old railroad beds for trails?
8. What are some organizations in Michigan that have helped shape Michigan trails, and what roles have they played?
9. What is Michigan's Heritage Trail Program and what was the genesis of that program?
10. Why is it so important that we promote history and culture in our trail system?

Introduction

Michigan's unique and nation-leading trail system is steeped in rich historical and cultural context. History provides a unique backdrop for this trail system, helping to interpret and promote the legacy of Michigan's people and their culture and traditions.

Telling stories of Michigan's culture and history has many benefits for the state and its citizens. It allows trail users to connect with their surroundings on a deeper level and to sense the impact that prior generations of Michiganders have had on the state. Some observers have likened this effect to "being able go back in time to feel what life was like hundreds of years ago in early Michigan."

History-telling helps stimulate a deeper personal experience of a place. Adding history-based interpretative programs on trails helps perpetuate stories of the past and keep them alive for

future generations. This helps trail users better understand the history of a place and also helps to cultivate pride in local heritage by allowing people to understand their community's role in helping to develop and grow a place.

Telling history on trails also provides a unique and enduring opportunity for local citizens to engage in interpretive work by allowing them to be engaged in local history-telling programs. There are unique examples of this throughout Michigan's trail system as citizens and citizen organizations at the local level engage in meaningful history-telling programs.

To fully understand the value and opportunities for history-telling, it's vital to appreciate the many events and people that have shaped the history of Michigan's trails.

A History of Michigan's Trails

The Anishnaabek are a group of culturally related indigenous people that live in the Great Lakes region. In Michigan, most Anishinaabe people belong to three nations: the Chippewa, the Odawa and the Potawatomi. Prior to European settlement, the Anishnaabek created a vast network of land and water trails that laid the foundation for Michigan's current trail system.

Anishinaabe trails were often quite narrow and, in many cases, may have been nothing more than simple rutted paths that were about 12 to 18 inches wide. The narrow paths were just wide enough for Native Americans to walk in single file, often to try to disguise their numbers because of concern for other people in the area (Hardy 2021).

The pathways used lands that were most easily traversed and crossed rivers and streams where they were the shallowest. Often stepping stones were placed across these rivers both to assist with crossing and help mark areas suitable for crossing.

Many of the Native American trails found in Michigan were considered to be part of the Great Trail Network, a trade and transportation route that extended hundreds of miles to the Eastern Seaboard. Larger foundational trails were connected to smaller tributary trails that served to provide access to a variety of seasonal hunting and fishing areas, salt wells, and copper and mineral mines. The trail system was used primarily for transportation, to access gathering places, and to extend commerce and trade routes (Hardy 2024).

Interactive map of Michigan tribal trails prior to 1820 (Hardy 2024).

Courtesy of HathiTrust, CC0 Public Domain

Major Land Routes

Many of these early Native American footpaths served as the foundations for Michigan's current system of roads and highways. The eight major Native American land routes were the Sauk Trail, the Saginaw Trail, the Saint Joseph

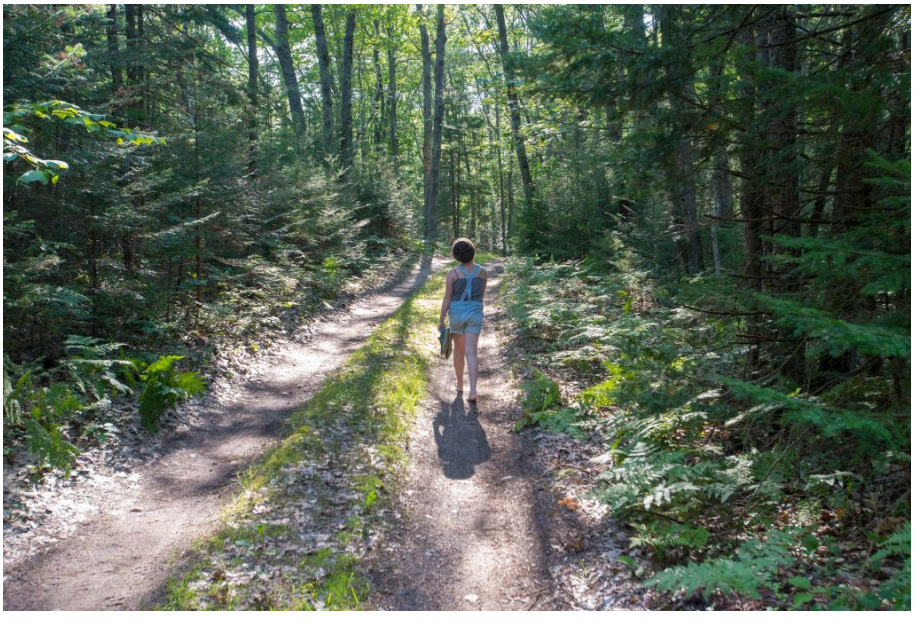
Trail, the Grand River Trail, the Mackinac Trail, the Maumee-Shoreline Trail, the Shiawassee Trail, and the Cheboygan Trail.

Saint Joseph Trail

The Saint Joseph Trail is considered to be one of the most significant east-to-west trail routes in Michigan. This trail was also known as the Route du Sieur la Salle, named after the 17th century explorer who was engaged in the search for a land route across the continent to China. Today this route is shared with much of Interstate 94 and portions of US 12 and is also often referred to as Territorial Road (Hardy 2021).

Cheboygan Trail

The Cheboygan Trail was an interior northern Michigan trail that extended to the Straits of Mackinac and hugged borders of eastern forest land. State Road M-33 follows much of this trail system today (Hardy 2024).



Cheboygan State Park 2015 © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Shiawassee Trail

The Shiawassee Trail began just west of Detroit and ran northwest until it connected to the Shiawassee River at the present-day village of Byron. This trail followed the Shiawassee River to the Saginaw River and ended in Saginaw. The city of Farmington was originally located where the Shiawassee trail crossed the River Rouge (Hardy 2024; Sewick 2016).

Mackinac Trail

The Mackinac Trail was an interior northern Michigan Trail that extended to the Mackinac Straits and bordered western forest land. Today, Interstate 75 (I-75) overlays much of this system (Bessert 2024 and Hardy 2024).

Saginaw Trail

The Saginaw Trail was a major north-to-south Sauk trail system that extended from Detroit to Saginaw. Today this trail starts at the Detroit River and heads northwest to Woodward Avenue in the city of Pontiac, continuing up what is known today as the Dixie Highway through the cities of Flint and Saginaw (Hardy 2018b; Sewick 2016).

Grand River Trail

The Grand River Trail was an east-to-west route from the cities of Grand Rapids to Detroit that Native Americans used for transportation and commerce for centuries before pioneers arrived. This trail is now generally followed by Interstate 96 (I-96) (Hardy 2024).

Sauk Trail

The Sauk Trail was a major land route that ran between the cities of Detroit and Chicago that was often referred to as the Chicago Road. It was believed to be established originally by migrating bison. In 1820 Henry Schoolcraft described the trail as a “plain horse path, which is considerably traveled by traders,

hunters, and others." Today this path or trail is known as US 12 (Hardy 2018a and Sewick 2016).

Maumee-Shoreline Trail

The Maumee-Shoreline Trail was one of the five trail routes leading out of the city of Detroit. It began at the Maumee River in Toledo, Ohio, then followed the shore through Detroit and continued north along the Detroit and St. Clair Rivers into the thumb area of Michigan. This was also part of the Great Trail Network and is considered to be one of Michigan's first roads to be developed by early European settlers. Eventually it became a crucial military supply route during the War of 1812 that ran from Urbana, Ohio to Fort Detroit (Hardy 2022).

"Old Indian Trail"

The "Old Indian Trail" was part of an ancient trail system that dated back to about 700 BC. This trail ran from what is now the city of Cadillac to Traverse Bay and was approximately 55 miles long. Its historical significance is evident today through a marked trail system with map and guide resources available online. The majority of the markers (32 out of 33) are placed alongside roads indicating where the trail crossed. Because the trail often crosses private property, hiking is not advised. The trail is actively maintained by the Little Traverse Bay Band of the Odawa (Ettawagheshik n.d and Friends of the Old Indian Trail n.d.).

Water Routes

Native American pathways also included an extensive network of water routes, which included navigable inland rivers, streams, and lakes (along with the Great Lakes). When accessible, these water trails were typically preferred over land trails because travel was often faster and more direct (Hinsdale 1931). The Anishinaabe typically used birchbark canoes to traverse water routes. Prior to European settlement, much of Michigan was characterized by vast areas of wet and marshy lands that facilitated the use of water corridors for commerce and transportation. As European settlers arrived, wetlands were often drained for farming and development, thereby eliminating some of these early water trails.

Key Native American water routes included the Manistique-to-Whitefish Bay route, the Saginaw and Grand River basins, including Saginaw to Muskegon, Saginaw to Grand River,

and Huron River to Grand River. These trails helped provide eventual connections to the important trade and commerce routes of the Mississippi River (Hinsdale 1931).

Commerce and Transportation

Trails provided significant commerce and transportation benefits for European settlers. As the French arrived in Michigan in the early 17th century, they began establishing trading posts and trading networks with Native Americans. These traders' stores and trading posts stimulated tribal interest in European goods and provided an opportunity for Europeans to barter with Native American hunters for fur. These trading posts were almost always situated at the intersections of main trails and were usually close to major water routes.

Early visitors to the region found that often the best places to settle were sites of former Native American villages, as they were able to utilize and maintain the same trails that ran between those villages. Eventually, they expanded many of these footpaths into wagon trails and roads. In 1805, Michigan was designated a territory, and for the next 30 years, one of the territorial government's first priorities was to create a system of regional roads to assist in the settlement of the territory. Territorial road development was aided significantly by these already well-established Native American pathways.

Rail Trails in Michigan: A Brief History

Iron Belle Trail © Michigan Department of Natural Resources. All rights reserved. Used with permission.

In 1832, Michigan's first railroad tracks were laid by the Erie and Kalamazoo Railroad Company between Adrian, Michigan and Toledo, Ohio. By the late 1800s to early 1900s, Michigan's railroad system had increased to more than 9,000 miles of active rail service with the rapid rise in the popularity of railroad use for both transportation and commerce (MDOT 2014). Railroads helped open the state to a variety of commerce opportunities, including transportation of timber resources and other freight and helped to expand transportation and development opportunities throughout Michigan.

However, as Michigan's road system improved and the use of automobiles increased, reliance upon the use of railroads decreased in Michigan. With continued decline in rail use, many railroad corridors began to be considered for decommissioning or abandonment. At the time of this writing, only about 3,600 miles of track are still in active use in the state (MDOT 2024).

In the 1960s, early trail advocates began to appreciate the unique opportunities to use abandoned railroad corridors for trails and formally abandoned railroad corridors began to be converted into public trails. These early "rail trail" conversions provided new recreational and economic opportunities for many communities (RTC n.d.b).

The nation's first official rail trail is the Elroy-Sparta State Trail, located in Wisconsin, which opened to the public in 1965 (Wisconsin Department of Tourism n.d.). Michigan's first rail trail is the Haywire Grade Trail located in the Upper Peninsula, which opened in 1970 (DNR n.d.a). Today, Michigan has more than 2,500 rail trail miles—more rail trail miles than any other state (RTC 2024).

Although these rail trail conversions provided opportunities for trail development, there were also patches of opposition to rail trail development due to concerns over impact on adjacent private property rights. In many situations, adjacent property owners saw the opportunity to return those rail corridors to less intrusive uses and believed that trail conversions might increase the opportunity for trespass and vandalism. Today those fears have been largely dispelled as rail conversions have provided significant positive benefits for both adjacent landowners and nearby communities.

One of the most important Michigan statutes that has worked to incentivize conversions of abandoned railroad corridors is the Transportation Preservation Act of 1976.[1] This act allows for preservation of rail corridors for future use, and at the same time allows for those corridors to be used for trail conversions. The Michigan legislature enacted this program to both maintain control of the corridor for future rail use if necessary but also recognized the opportunities to use these corridors for recreational trails. In taking this approach, the legislature acknowledged both the value of rail use *and* trail use.

Some of the earliest and best-known rail trail conversions in Michigan include the White Pine Trail, the Pere Marquette Rail Trail, the Paint Creek Rail Trail, and the initial railroad conversion in Michigan—the Haywire Grade Trail in the Upper Peninsula.

White Pine Trail

The White Pine Trail follows a railroad corridor originally built by the Grand Rapids and Indiana Railroad, which provided freight and passenger services from Cincinnati, Ohio to the Straits of Mackinac. The White Pine Trail spans 92 miles and is the longest rail trail linear state park in Michigan. The White Pine Trail connects the city of Grand Rapids to the city of Cadillac, crosses five counties, and interestingly includes fourteen open deck bridges (Cadillac Area Visitors Bureau n.d.).

Pere Marquette Rail Trail

The Pere Marquette Rail Trail traces segments of the Flint and Pere Marquette Railroad between the cities of Midland and Clare that originally opened for rail traffic in 1870. This railroad corridor was used to transport supplies to and from timber companies that were harvesting many of the state's old growth forests. It was eventually purchased by the Chesapeake and Ohio Railway in 1947 and was formally abandoned in the 1980s. The first stretch of this rail trail conversion was opened in 1993 and today the trail stretches from downtown Midland to the outskirts of Clare, a distance of approximately 30 miles (RTC

1. See Appendix A for full statute.

n.d.c). The Pere Marquette Rail Trail is one of Michigan's most well-known and popular trails, drawing over 170,000 visitors each year (Nelson et al 2002).

Paint Creek Rail Trail

The Paint Creek Rail Trail was converted to a trail from the former Penn Central railroad line which was abandoned in the 1970s. In 1981, this abandoned railroad corridor was purchased using Michigan Natural Resources Trust Fund (MNRTF) grant dollars along with matching community donations. Recognized as Michigan's first fully non-motorized rail trail, it opened to the public in 1983 and is approximately 8.9 miles long (Paint Creek Trailways Commission n.d.).

Key Individuals and Organizations in Michigan's Trail History

Michigan has a rich legacy of people and organizations that have been successful in helping spur the development of trails. These groups and individuals often share common traits of being closely connected with their community and passionate and persuasive in rallying community support behind trails.

Organizations and their impact on Michigan trails will be covered more thoroughly in a subsequent chapter. However, for the purpose of providing an understanding of the history of organizational efforts in building trails, several important organizations are mentioned here.

Michigan Chapter of the National Rails to Trails Conservancy

One of the most impactful organizations in Michigan's trail development was the Michigan Chapter of the National Rails to Trails Conservancy (RTC). The RTC is a national nonprofit organization, dedicated to "bring[ing] the power of trails to more communities across the country" and it has served as a national voice for rail trail development since the 1980s (RTC n.d.a). The Michigan chapter of this national organization is known today as the Michigan Trails and Greenways Alliance (MTGA).[2]

2. MTGA operated for 18 years as the Michigan chapter of the national Rails to Trails Conservancy.

During its time with RTC, MTGA helped initiate multiple rail trail projects, advocated for other rail trail conversions, helped to form numerous friends or volunteer groups, and provided statewide guidance for trail planning and development. Over 1,500 miles of rail trail conversions throughout the state came about in part due to their efforts. MTGA continues to help build and promote trails throughout the state and remains a vital force in connecting communities through trails (MTGA n.d.).

Michigan Department of Natural Resources

The Michigan Department of Natural Resources (DNR) is the centerpiece of Michigan agencies working to develop and manage trails. The DNR has been integral in developing and expanding Michigan's expansive trail system by serving as the lead state agency to coordinate federal, state, and local resources in trail building. The department has been tasked with the management and protection of Michigan's natural resources since its inception of 1921 when it was created as the state's first conservation agency, the Michigan Department of Conservation (Michiganology n.d.). The department's mission expresses its commitment to "the conservation, protection, management, use and enjoyment of the state's cultural and natural resources for current and future generations" (DNR n.d.b).

Parks and Recreation Division

Housed within the DNR is the Parks and Recreation Division (PRD). Beginning in 1993, the parks and boating programs of the DNR merged to form this division. The PRD's mission statement is "to acquire, protect, and preserve the natural and cultural features of Michigan's unique resources, and to provide access to land and water-based, public recreation and educational opportunities." The PRD's activities include acquisition, development, and management of trails located on state-owned and managed land. The PRD currently manages more than 13,000 miles of state-designated trails and pathways (DNR 2023).

Michigan Trails Advisory Council

The Michigan Trails Advisory Council (MTAC) was created by the Michigan legislature and was a fundamental part of the legislature's early commitment to developing a statewide system of trails under the Michigan Trailways Act.[3] This advisory council is comprised of citizen trail advocates appointed by the Governor and helps to coordinate trail development and management in various trail regions. The council meets quarterly to take public comment

3. See Appendix A for full statute.

and hear issues in order to help provide a "citizen's voice" to the state's trail plan and related activities. The council is specifically tasked with making recommendations to both the Governor and the DNR (DNR n.d.c).

Other Important Organizations and Individuals

Important organizations in Michigan that have historically been active in trail work on motorized (i.e., snowmobile and off-road vehicle) trails include the Michigan Snowmobile Association and the Off-Road Vehicle Association. These organizations merged into one organization, the Michigan Snowmobile and Off-Road Vehicle Association (MISORVA).

Organizations like the Michigan Trail Riders Association (MTRA) and the Michigan Horse Council (MHC) have been leaders in equestrian trail use and trail development for many years and have promoted safe and accessible equestrian trail-based activities. For example, MTRA has long maintained the "Shore-to-Shore Trail," a multi-use and multi-jurisdictional trail that stretches from Lake Michigan to Lake Huron, and MHC recently partnered with the DNR to sponsor a new shoreline horseback riding season at Silver Lake State Park.

The Michigan Mountain Biking Association (MMBA) and its partner organization, the League of Michigan Bicyclists (LMB) have been active in helping to promote bicycle-based activities on both natural and improved surface trails. These organizations recently merged, creating the League of Michigan Bicyclists—Michigan Mountain Biking Association Alliance.

Trails are not possible without key individual citizen-advocates that help drive support for the development and management of trails throughout the state. Although there are hundreds of individuals that are deserving of recognition for their trail work, they are too numerous to mention all here. A short representative list includes people like Dr. Bill Olson and his work on the Betsie Valley Trail, Julie Clark and the Traverse Area Recreation Trail (TART), John Morrison of the West Michigan Trails and Greenways Coalition, Roger Storm of both the DNR and the former Michigan Chapter of the Rails to Trails Conservancy, Carol Fulsher of the Iron Ore Heritage Trail, Karen Middendorp of the MISORVA, and Ron Olson of the DNR.

Other key supporters are people like Kristen Wiltfang from Oakland County, Mike Levine and John Calvert from Pinckney, Michigan, and Andrea LaFontaine, current director of the MTGA, Jason Jones of the MMBA (currently serving as Mountain biking advisor to the League of Michigan Bicyclists), Mary Bohling of Michigan State University (MSU) Extension, Andrea Ketchmark of the North Country Trail Association (NCTA), and Colonel Don Packard of the MHC. Michigan's legacy of gubernatorial support includes trail support from Governors John Engler, Jennifer Granholm, Rick Snyder, and Gretchen Whitmer; they are examples of state leaders who have understood the value of trails for the state and helped spur the development of trails in Michigan.

History-Telling on Michigan Trails

Michigan is fortunate to have a rich history of trail development and leadership that continues to position the state as a national leader in trails. This legacy provides important opportunities for trail managers to weave history into the building and management of trails.

Many trails in Michigan include this important component of history-telling through orchestrated interpretive signage and other methods. These interpretative programs provide trail users with curated information that enables them to understand more clearly the historical, cultural, and environmental underpinnings of their surroundings. Examples of common types of interpretive features on trails include signage, interactive stations, electronic resources, and interpretive guides to help tell history and cultural heritage along the trail.

Michigan Heritage Trail Program

The most significant statewide interpretive trail program in Michigan is the Michigan Heritage Trail Program administered within the DNR. This program was the result of legislative efforts to help explain the culture and history of the state and utilize trails to help connect people with the natural and cultural heritage of trails. The program is currently being administered by Dan Spegel acting in his official capacity as the Michigan Heritage Trail Coordinator. Spegel's work tries to add a new dimension to the trail experience by sharing the area's natural and cultural heritage. This helps people see why these places are special and unique, and can stimulate a deeper personal experience of that place. The Michigan Heritage Trail Program has worked to create greater awareness of people's desire to understand the place they are visiting and works to bring the "museum outdoors where more people can encounter it" (Michigan History Center n.d.a).

Kal-Haven Trail

A centerpiece of the state's heritage trail program is the work done on one of the state's earliest rail trail conversions, the Kal-Haven Trail, which was dedicated in 1989. The Kal-Haven Trail is 33.5 miles in length and connects the city of South Haven to the city of Kalamazoo and runs along the former route of the Kalamazoo and South Haven Railroad. Former heavyweight champion boxer Joe Lewis did his "roadwork" in the area of this route as part of his training program for a championship fight in 1948. Thirty-one interpretive panels have been installed on the trail that share the natural and cultural heritage of the area. In 2020, an innovative mobile application was implemented to allow for increased accessibility (Michigan History Center n.d.b).

A prime example of local citizen engagement in history telling is the work being done by local historians in a restored train depot in the village of Bloomingdale located along the Kal-Haven Trail. Here local historians have developed numerous exhibits that tell the story

of this village that was once known for its record-setting oil production. During its heyday, Bloomingdale was among the state's largest producers of crude oil and development flocked to the area. When the oil wells dried up, the community was left with abandoned wells and a significant decline in population. Yet, local pride still continues in honoring the legacy of this community and provides a rich backdrop for trail visitors to understand the significance of this community and its people.

Iron Ore Heritage Trail

Another well-recognized heritage trail project is the Iron Ore Heritage Trail. Multi-faceted interpretive efforts have taken place along this trail, which is 47 miles long and passes through the cities of Marquette, Negaunee, and Ishpeming. In 2019, it was designated as a Pure Michigan Trail (UP Matters Staff 2019). The Iron Ore Heritage Trail takes trail users through multiple historic sites such as the Cliffs Shaft Mine, the Ore Dock in the city of Marquette, and several old mining buildings and engine houses. Utilizing old pieces of rail and mining infrastructure along with citizen and student-based artwork, the trail provides an intriguing depiction of life as it was in this Upper Peninsula mining community (Iron Ore Heritage Trail n.d.).

Haywire Grade Trail

The Haywire Grade Trail was Michigan's first rail trail opening in 1970. This trail follows the old Manistique and Lake Superior railroad that was originally constructed to transport timber to the mills in Manistique. In 2020, it was designated as a Pure Michigan Trail (Pietila 2020). The rail trail runs 32 miles from the village of Shingleton to Intake Park in the city of Manistique and there are interpretive signs along the trail that share the area's natural and cultural history (DNR n.d.a).

Group Discussion Topics

Today we use trails principally to recreate and to get outdoors. Please describe some of the more significant early uses of our trails and give an example of one trail that has served as a foundation for existing routes of transportation.

As we know, there is a rich history of trails in Michigan. Please discuss how trails help to contribute to a sense of place and why providing a sense of place is so critical to providing trail users with a more enriching experience? Why is it so critical that we recall our history and how can history telling contribute to providing added diversity, equity, and inclusion in the trails that we manage? What proposal would you make to help develop a statewide system of historical trail signage and interpretative program? How would you incorporate indigenous tribes into such an interpretive program and what other sources of information would you try to include in designing the program?

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2.

THE MICHIGAN STATUTORY FRAMEWORK FOR TRAILS

"Trail legislation cements the value and importance of trails into law. They are the guiding documents off of which all trail development and maintenance [activities] are derived, and provide the framework for establishing trails as fundamental natural resources to the state."

—Tim Novak, Statewide Trails Coordinator, Michigan Department of Natural Resources

Chapter Objectives and Goals

This chapter provides an overview of Michigan statutory law as it relates to trails with an emphasis on the Michigan Trailways Act, the Recreational Trespass Act, and the Recreational Use Act. The Nonmotorized Transportation Preservation Act and statutes impacting snowmobile trails, off-road vehicle (ORVs) trails, equestrian trails, and bicycle trails, including allowable electric bicycle (e-bike) usage are also reviewed. Key trail provisions within these statutory laws will be discussed with an emphasis on private property and public access rights. It is vital for students of Michigan trails to understand the statutory framework for the development and management of Michigan's trail system.

Key Questions to Consider as you Read this Chapter

1. What developments precipitated the Michigan legislature's movement into trail management legislation?
2. What three key statutory laws have helped to guide the development of Michigan's trail system?
3. Why is trail legislation so often considered nonpartisan in political nature?
4. What are some of the key provisions of the Michigan Trailways Act that helped encourage trail development?
5. What is the purpose behind the Michigan Trails Advisory Council (MTAC)? Who is responsible for creating the MTAC and what responsibilities does the council have?
6. Why is the Recreational Trespass Act such a valuable act, and how does it help to protect private property rights?
7. How does the Recreational Use or Landowner Liability Act help encourage trail management and volunteer activities and development of trails on private property?
8. What is meant by the term "gross negligence and wanton and willful misconduct" and why is it important in a liability matter related to trail development?
9. Can local units of government work together to develop a multijurisdictional trail management council?
10. What is the value of branding trails and what branding opportunities exist in Michigan law?

Introduction

There are three basic types of laws that are intended to provide direction for citizens and organizations that do trail work: common law, statutory law, and agency law. All three types of law provide guidance and are responsible, to some extent, for why Michigan has been so successful in building trails. As noted above, the focus of this chapter is on Michigan's statutory law, also referred to as the Michigan Compiled Laws (MCL).

- **Common law** is law made in the judicial branch (i.e., the courts) and helps interpret existing law as it applies to specific situations.
- **Statutory law** is law made in the legislative branch and is used to regulate behaviors and avoid harm from being caused.
- **Agency law or agency rules and orders** is the source of law that comes from the

executive branch (e.g., regulatory agencies) and helps provide additional details and clarifications for how statutory law is applied in specific situations.

Michigan's State Constitution prescribes that all three sources of law emanate from the citizens, and that citizens are empowered to hold these three branches or sources of law accountable for the actions they take. One of the reasons Michigan has such an effective set of laws regulating trail activity is because of citizen engagement and the important opportunities that citizens have to express their concerns and ideas to sources of lawmaking authority. Citizen input is vital to the proper planning, development, and management of trails. This is a central theme that will be further discussed throughout this course book.

Key Trail Legislation

Throughout the 1990s and into the 2000s, the Michigan legislature engaged in passing statutory laws that helped enable and grow the state's trail network. This set the stage for trail expansion in later decades. As the popularity of trails became more apparent to the Michigan legislature during the early part of the 1990s decade, it became evident to key policy makers there was a need for a foundation of laws that would promote and regulate trail use. Key legislation was introduced to specifically support expanding the state's trail network, to provide private property protection from exposure to recreational trespass, and to limit liability exposure for landowners, trail volunteers, and trail managers.

Embracing the importance of citizen engagement, the legislature also framed in the creation of citizen advisory councils to provide input to the Michigan Department of Natural Resources (DNR) and local governments as they worked to develop trails around the state.

Trail building and trail management activities can sometimes cause friction with adjacent landowners who have concerns about trespass onto their land. Typically, cases of trespass have been addressed in court by allowing landowners to seek remedies for intrusion onto their land. For example, they can seek compensation for damages or enjoin (i.e., prohibit) the activity. Trail managers also sometimes need protection from lawsuits arising out of the normal recreational use of land to help encourage appropriate trail management activities. For reasons such as these, the Michigan Legislature saw the need to specifically address protection for both property owners and those individuals and organizations that are working to manage and promote trails.

As pockets of early success with trail building occurred in various regions of the state, such as with the Betsie Valley Trail in northern Michigan and the Kal-Haven Trail in southwest Michigan, the legislature was prompted to address the basic question of how they could regulate trail user behavior to encourage responsible use, and at the same time build an expansive network of trails throughout the state. Passage of the Michigan Trailways Act,

the Recreational Trespass Act, and the Recreational Use Act helped address these changing conditions.

The Michigan House of Representatives preparing for session, 2017. By Bob Wilson, CC BY-NC 4.0.

Michigan Trailways Act (MTA)

Of these statutes, the MTA, sponsored by Senator Bob Geake of Northville, Senator Vern Ehlers of Grand Rapids, and Senator John Pridnia of Harrisville, was the most significant foray into trail legislation in the early 1990s. The MTA is a comprehensive package of legislation that contains key provisions to encourage responsible trail development. The act contains specific provisions that define the legislature's intent that trails are to be regarded as a Michigan resource and are meant to serve a public purpose. The act also creates authority for the establishment of regional trail management councils, allows for the promotion and marketing

of trails, the development and management of water trails, the creation a history-telling program, and provides specific rulemaking authority to the DNR.[1]

Declaration of Findings

In many statutes passed by the Michigan Legislature, the first section of the statute typically makes a declaration of findings. These statements help frame legislative intent for the remainder of the statute. In the MTA, there is a broad declaration by the legislature of the significant benefits provided by Michigan trails. One of most important statements in that provision declares that "*...therefore, the planning, acquisition, development, operation, and maintenance or trails are in the best interest of the state and are a public purpose*" (MCL 324.72102).

Trail Management Councils

Another key section of the MTA provides the authority for two or more government agencies (state or local) to work together to create a trail management council for the development and management of a trail pursuant to existing state law. The statute specifically allows for the operation and maintenance of trails that are either owned by or under the control of the governmental agencies that established the council, provides for coordinated management, signage, and guidance of multijurisdictional trails, and the ability to both raise funds and seek grants for the support of those trails (MCL 324.72106).

Branding and Promotion

Trail branding and promotion is an important feature of the MTA and here the legislature authorized the Director of the DNR to designate a trail as a Pure Michigan Trail, according to the criteria determined by the department (MCL 324.72103). This designation is used to help support and promote state trails

1. See Appendix A for the complete text of the Michigan Trailways Act (Part 721 of NREPA); MCL 324.72101 to 324.72118

that enhance healthy lifestyles, conserve natural and cultural resources, and provide economic development and recreation opportunities in local communities (DNR n.d.d).

Statewide Trail Network

The MTA also includes an important charge to the DNR to work towards establishing a statewide trail network that is "designed to accommodate a variety of public recreation uses," and includes Pure Michigan Trails, Pure Michigan Water Trails, and other recreational trails. The statute also provides that the trail network must include signage and the creation of a database of trail maps (MCL 324.72114).

Michigan Trails Advisory Council (MTAC)

Perhaps the most important step the legislature took in engaging citizens to help in managing the statewide trail network was the creation of the MTAC. This body comprised of citizens from around the state that have familiarity with trail issues works to take public input on how to improve and fashion the state's trail network. Council members are appointed by the Governor of Michigan. The MTAC meets quarterly at different locations around the state to help facilitate citizen engagement (MCL 324.72110).

Recreational Trespass Act (RTA)

The RTA was passed by the legislature to specifically address issues that had been occurring with trespass on private land for a host of recreational activities, including hunting, fishing, and trail use. This statute was designed to provide notice to those engaged in recreational activities that they are bound by law to respect the rights of nearby private property owners.[2]

2. See Appendix A for the complete text of the Recreational Trespass Act (Part 731 of NREPA); MCL 324.73101 to 324.73111

Violations of private property rights can subject violators to specific fines and penalties provided for in this statute. The law provides for both dollar fines and jail time and these penalties are increased for second and subsequent violations. In addition, property owners may also bring a civil cause of action for any actual property damages. The law also authorizes the county prosecutor to pursue charges and authorizes other local governments to pass similar laws to increase the potential for enforcement (MCL 324.73108 to 324.73111).

Landowners wishing to protect their property from trespass have some affirmative responsibilities that they must meet to comply with the statute, such as erecting fencing and signage, and maintaining or enclosing the property in such a manner as to exclude intruders. There are specific exemptions to trespass violations under the RTA, including activities such as fishing, wading, and the opportunity to retrieve a hunting dog that has moved onto another's property (MCL 324.73102).

Landowner Liability/Recreational Use Act

Lawmakers also wanted to promote recreational uses of our lands and waters and provide appropriate protections for those owners and operators of trails and other land-based activities who provide for or support those activities. Landowners must still adhere to a basic standard of care in their actions and shall not engage in gross negligence or willful and wanton misconduct.[3]

Part 733 of the Natural Resources and Environmental Protection Act (NREPA) provides that "a cause of action does not arise for injuries to a person who is on the land of another without paying to the owner, tenant, or lessee of the land a valuable consideration for the purpose entering or exiting from or using a Michigan trailway... or other public trail, with or without permission, against the owner, tenant, or lessee... unless the injuries were caused by gross negligence or willful and wanton misconduct of the owner, tenant, or lessee" (MCL 324.73301[2] to 324.73301[4]).

Specific immunity from a cause of action is provided for organizations "other than those who operate for-profit" (MCL 324.73301[3]). The premise of the law is that for all those organizations that do not operate for profit, a cause of action for liability for damages is specifically exempted unless the injuries were caused by the gross negligence or willful and wanton misconduct of a person.

Since the law itself provides reference to the term "gross negligence and willful and wanton misconduct," trail managers have attempted to frame in the specific definition of this type

3. See Appendix A for the complete text of Part 733 of NREPA (Liability of Landowners); MCL 324.73301 to 324.73302

of conduct or activity. Throughout Michigan statutory law, the term "gross negligence and willful and wanton misconduct" is used to provide parameters for appropriate conduct such as in the State Emergency Management Act (Public Act 390 of 1976) and the Michigan Vehicle Code (Public Act 300 of 1949). The interpretation of this phrase is generally handled on a case-by-case basis in court, based on a consideration of a variety of factors.

Statutory Guidelines for Managing Specific Uses of Trails

Michigan policymakers have developed distinct categories of trails that allow for different types of uses. The state's statutory trail law revolves around three main categories of trails: nonmotorized trails used by hikers, bicyclists, equestrians, walkers, and others; motorized trails used by snowmobile and off-road vehicle (ORV) operators; and water trails utilized by small boats such as canoes, kayaks, and paddle boards, and some motorized vessels. Each type of use is regulated by a specific set of laws.

Electric Bicycles

Of special note is the emerging use of e-bikes on trails. Current federal law defines an e-bike to be a motorized vehicle (43 CFR § 8340.0-5). Therefore, on many federal lands (e.g., those owned and operated by the United States Forest Service (USFS) and the National Park Service (NPS)), e-bikes are only permitted on trails that allow for motorized vehicles. In recent years, both the USFS and NPS issued policies that could facilitate the expansion of e-bike use on their lands (USFS n.d.; NPS 2023).

Michigan designates three classes of e-bikes (DNR n.d.a):

- **Class One**, where the motor provides assistance only when the rider is pedaling and ceases to provide assistance when the bike reaches 20 miles per hour (mph).
- **Class Two**, where the bicycle is equipped with a throttle and a motor that propels the bike, whether the rider is pedaling or not, until the bike reaches 20 mph.
- **Class Three**, where the motor provides assistance only when the operator is pedaling and ceases to provide assistance when the bike reaches 28 mph.

Currently, under state law, e-bikes are permitted only on improved surface linear trails and rail trails. E-bikes are not permitted on nonmotorized natural surface trails, such as those trails used for hiking, mountain biking, and equestrian trails. Exceptions to the regulations can be

made on a case-by-case basis, where a local authority or agency of the state having jurisdiction over the trail may allow for the operation of an e-bike on that trail (MCL 324.72105).

E-bike use on Mackinac Island is an example of where e-bike use is carefully regulated on the local level as the authorities on the island have specifically prohibited e-bikes through local ordinance in accordance with state law. However, those individuals with a qualifying "mobility disability" are exempt in accordance with the federal Americans with Disabilities Act (ADA) and may obtain an e-bike permit from the island government to ride on the island (City of Mackinac Island 2023).

Equestrians

There are two key pieces of statutory law that specifically apply to equestrian trail use in Michigan: The MTA and the Equine Activity Liability Act.

The MTA defines where equestrian uses are permitted on public lands managed by the DNR and also prescribes a process that must be followed to restrict equine use on DNR-managed lands (see MCL 324.72115). The MTA also created the Equine Trails Subcommittee (ETS), which is a citizen advisory group to the DNR that provides guidance and recommendations on the state's network of equestrian trails (see MCL 324.72110a).

The Equine Activity Liability Act (Public Act 351 of 1994) stipulates that an equine sponsor or equine professional is "not liable for an injury or death of a participant or property damage resulting from the inherent risk of an equine activity" (MCL 691.1663). This law helps provide liability protection for equine-related trail activities and carefully defines what is meant by the terms "equine sponsor, equine activity, and engaging in an equine activity" (MCL 691.1662). There are also important conditions under which liability is not provided primarily driven by the awareness of a "dangerous latent condition of the land or facilities that is known to the equine activity sponsor, equine professional, or other person in for which warning signs are not conspicuously posted" (MCL 691.1665[c]).

Horseback riding at Pinckney Recreation Area on the equine trails. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Off-road Vehicles

The Michigan Off-Road Vehicle Act is found in Part 811 of the NREPA.[4] This statute provides guidelines for the operation of ORVs on state land, as well as the development and maintenance of the state's ORV trail network. The key provisions of this act include:

- The licensing of ORVs
- The creation of the off-road vehicle account
- The requirement for a comprehensive plan for ORV use, or activity using certain areas, routes, and trails
- The requirement for an ORV safety education course
- Authorization for rules governing the operation and conduct of ORVs

An ORV must be licensed with the DNR except under the following circumstances: it is being used exclusively in a comprehensive program for training, it is being operated solely on private

4. See Appendix A for the complete text of Part 811 of NREPA (Off-Road Recreation Vehicles); MCL 324.81101 to 324.81151

property, or it is being operated on a free ORV-riding day (i.e., a day when the state specifically provides for free ORV riding as a way to introduce new users to the activity). In addition, an ORV trail permit is required for operating an ORV on designated ORV trail routes, and special use ORV areas (MCL 324.81115).

The statute also creates the Off-Road Vehicle Account, which can be used for the following purposes (MCL 324.81117):

- Signage for the improvement, maintenance and construction of trails, routes, and areas
- The administration and enforcement of the statute
- The acquisition of easements, permits, or other agreements for the use of land for ORV trails, routes, or areas
- The restoration of any of the natural resources of the state on public land that are damaged due to ORV activities

The ORV Trail Improvement Fund creates a grant process to help distribute revenue for the purposes of planning, improving, constructing, signing, and maintaining ORV trails and facilities. These grants help supplement state-level funding for ORV activity by dispersing grants to public agencies and nonprofit, incorporated clubs and organizations (DNR n.d.b).

ORV photo shoot near Baldwin, Michigan in the Manistee National Forest.

Snowmobiles

Part 821 of the NREPA provides guidelines for the operation of snowmobiles on state land as well as the development and maintenance of the state's snowmobile trail network.[5] Key components of this law include provisions for:

- The Michigan snowmobile advisory committee
- The certificate of registration and registration decal requirements
- The snowmobile, safety, education, and training program
- The snowmobile account and sub accounts and the uses of those accounts
- The requirement for a Michigan snowmobile trail permit
- The authorization to implement rules covering the operation and conduct of snowmobiles on state land

The Michigan Snowmobile Advisory Committee is authorized to advise the DNR regarding the development of criteria for safety education, allocation of funds, promulgation of rules, and the development of annual updates to a comprehensive plan for statewide recreation on the snowmobile trail system. The committee also works to aid in the implementation of the recommendations made by snowmobile users regarding trails. This committee is similar in function to the MTAC in that it is intended to be a body to both disseminate and take in public comment regarding the operation of snowmobiles on trails (MCL 324.82102a).

This statute also authorizes the creation of a certificate of registration and requires users to obtain a registration decal. A person who operates a snowmobile in Michigan is required to both register their snowmobile and purchase a snowmobile trail permit, which enables them to ride on state-designated trails, public roads, and public lands were authorized. In some cases, snowmobiles are exempt from the trail permit and/or registration requirements. For example, a certificate of registration or permit decal is not required for a snowmobile operated exclusively on land owned by or under control of the snowmobile operator (MCL 324.82103).

Michigan's snowmobile program is completely funded by trail permit and registration dollars. These permit and registration revenues are deposited into the Snowmobile Account which is then split into two sub-accounts which fund trail improvement and trail easement activities, respectively. These funds support planning, constructing, maintenance, and acquisition of trails and areas for the use of snowmobiles in Michigan (DNR n.d.c).

5. See Appendix A for the complete text of Part 821 of NREPA (Snowmobiles); MCL 324.82101 to 324.82161

Snowmobilers enjoy a morning ride along Trail No. 11 South in Gogebic County. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Water Trails

The authorization for the development of a water trail system can be found within the Michigan Trailways Act. However, another significant statute that deserves to be mentioned here is Part 781 of NREPA, which created the Michigan State Waterways Commission and the State Waterways Account. The Michigan State Waterways Commission is required to act as an advisory body that makes recommendations on how to expend money from the waterways account. As such, it has the potential to play an integral role in helping fund and shape water trail development throughout the state.[6]

The statute provides that money in the waterways account is to be used only for the following purposes (MCL 324.78110):

- Construction, operation, and maintenance of recreational boating facilities
- The acquisition of property or rights in property
- For grants to local units of government and state colleges and universities to acquire and

6. See Appendix A for the complete text of Part 781 of NREPA (Michigan State Waterways Commission); MCL 324.78101 to 324.78119

develop harbors refuge and public boating access sites

This important funding source could conceivably help develop significant infrastructure that would complement the state's existing water trail program.

Additional Trail Statutes

There are several other statutes that are integral to trail development and trail management in Michigan. The Michigan Natural Resources Trust Fund (MNRTF) is expressly authorized in Michigan's Constitution, with Article IX, Section 35 establishing the fund for purposes of the development and management of the state's natural resources. The MNRTF is a grant-based program that is administered by the DNR and the MNRTF Board and provides grants for trail development and land acquisition along with other conservation-based funding purposes (see Part 19 of NREPA; MCL 324.1901 to 324.1911).

Michigan law has also enabled efforts to authorize a local "adopt-a-trail" program that allows for volunteer groups to assist in maintaining and enhancing trails on state land. This program is similar to several other "adopt-a-resource" programs that have helped enable and encourage citizen volunteers to assume management responsibilities without concern for certain types of liability exposure (MCL 324.72105).

Group Discussion Topics

Various categories of trails allow for diverse types of uses. Pick one category of trails (non-motorized, motorized, or water) and one statute discussed in class, and explain how that statute helps govern the development and management of your chosen type of trail use in Michigan. Does this statute affect any other types of trail users and if so, how?

The Michigan Trailways Act envisions an interconnected statewide system of trails that incorporates local, state, and Federal trails and accommodates diverse uses. To make this vision a reality, there are many hurdles that must be overcome. An example is achieving wide-spread collaboration amongst a variety of trail managers and landowners. What is another hurdle that must be overcome, and how might we address it? What proposal would you make to help better connect our trails in Michigan?

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3.

THE ROLE OF AGENCIES AND ORGANIZATIONS IN MICHIGAN TRAILS

"It's one thing to build a new section of trail but another to properly maintain it throughout its existence. For a trail such as the North Country National Scenic Trail (NCT), we rely primarily on volunteers for maintenance. They are the backbone of the NCT, without them there simply would be no trail to follow. On top of maintenance, they are also involved with the development, promotion, and protection of the trail, so having a strong volunteer base is critical."

—Kenny Wawsczyk, North Country Trail Association Regional Trail Coordinator, Michigan

Chapter Objectives and Goals

This chapter discusses the roles played by the Michigan Department of Natural Resources, the Michigan Department of Transportation, and the Michigan Department of Agriculture and Rural Development in coordinating trail building and development in Michigan along with the important roles played by the National Park Service and the United States Forest Service at the federal level. Additionally, local units of government and state and local trail nonprofit organizations are reviewed as they provide key direction and support for Michigan's trail building and

management efforts. Readers should be able to understand and appreciate the diversity of organizations that help support, build, and manage Michigan's trail system.

Key Questions to Consider as you Read this Chapter

1. What are the two most significant federal agencies involved with trail building and maintenance in Michigan?
2. What are some of the trails that have been developed by these federal agencies?
3. What are some of the funding sources that are provided by the federal government to Michigan to help develop and manage trails?
4. What three state agencies are most directly involved with trail building and management in Michigan?
5. What is the mission of the Michigan Department of Natural Resources and what division of this department is most directly involved with trails?
6. What three trail programs does the Michigan Department of Transportation administer that have helped develop non-motorized transportation alternatives?
7. What role does the Michigan Department of Agriculture and Rural Development play in rural trail development?
8. Why are local units of government such an effective partner in trail building? What is an example of a county in Michigan that has been successful in trail building?
9. What are some important nonprofit organizations that have been successful in acting as partners in building and maintaining Michigan's trail network?
10. What is the value of volunteer trail organizations such as "trail friends" organizations and why is it so vital to engage Michigan residents in trail work?

Introduction

The development and management of Michigan's trail system is complex and interwoven among many different public (i.e., governmental) and private (e.g., nonprofit) organizations. There are four primary categories of organizations that are involved in trail management in Michigan.

- **Federal governmental agencies** such as the National Park Service (NPS) and the United States Forest Service (USFS)
- **State governmental agencies** such as the Michigan Department of Natural Resources (MDNR), the Michigan Department of Transportation (MDOT), and the Michigan Department of Agriculture and Rural Development (MDARD)
- **Local units of government and regional planning commissions** are integral in the trail management process at the county, city, village, and township levels
- **Nonprofit organizations** whose mission it is to help develop and maintain trails around the state (e.g., organizations such as the Michigan Trails and Greenways Alliance (MTGA) and the West Michigan Trails and Greenways Alliance)

There are numerous benefits to working with federal, state, and local agencies along with other structured organizations that provide assistance to trail managers. Agencies and organizations have resources that are vital in planning and managing a trail. For example, the DNR has an entire trails team made up of regional trail coordinators and other agency specialists devoted to working with both state and local trail planners and managers around the state. State and federal agencies also provide services like assistance with planning, public engagement, funding, route design, development of signage, and interpretive work. Nonprofit and volunteer organizations often provide critical trail maintenance support. The support for trails provided by agencies and organizations can be an essential element in planning and managing a successful trail; as such, trail planners and managers should leverage these resources when designing, building, and managing trails.

Federal Agencies

Federal agencies are created within the federal government either by Congress or the executive branch to serve a specific regulatory purpose. The directors of these agencies are typically selected by presidential appointment and serve at the pleasure of the President of the United States. There are two key federal agencies directly involved in the management of Michigan's trail system—the National Park Service (NPS) and the United States Forest Service (USFS).

National Park Service

The NPS was created in 1916 by an act of Congress and signed into law by President Woodrow Wilson. The mission of the NPS is to "preserve unimpaired, the natural and cultural resources and values of the National Park system for the enjoyment, education and inspiration of this and future generations" (NPS 2023). The NPS is rooted in the **preservation** of our nation's natural resources and is housed within the federal Department of the Interior.

The National Park Service is charged with the oversight and management of 429 recreational areas covering more than 85 million acres across the United States. These areas include national parks, national monuments, historic sites, lakeshore recreation areas, scenic rivers and trails, and other natural areas. The NPS consists of approximately 20,000 employees and engages over 300,000 volunteers each year (NPS 2024). The NPS often partners with local communities and state agencies to assist in historic preservation and the creation and maintenance of recreational spaces.

In Michigan, the NPS has a significant presence. There are seven NPS sites in Michigan covering about 279,000 acres of land. These sites include the Isle Royale National Park, Keweenaw National Historic Park, Motor Cities Natural Heritage Area, North Country National Scenic Trail, Pictured Rocks National Lakeshore, River Raisin National Battlefield Park, and Sleeping Bear Dunes National Lakeshore. Importantly, within these areas there are over 1,500 miles of recreational trails (NPS n.d.).

United States Forest Service

The USFS was established by an act of Congress in 1905. Its mission is to "sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations" (USFS n.d.b). This agency has its mission rooted in **conservation**, which is the wise use of natural resources; this contrasts with the preservation-based mission of the NPS.

The USFS is housed within the federal Department of Agriculture. It has approximately 30,000 permanent employees and works cooperatively with about 80,000 annual volunteers (USFS n.d.a and n.d.c). This federal agency oversees the management of 154 national forests and 20 national grasslands which cover about 193 million acres across the United States (USFS n.d.a and n.d.b). The USFS's management area accounts for approximately 25 percent of all federal lands.

There are three national forests located in Michigan, which cover about three million acres of land. These include the Huron-Manistee, Hiawatha, and the Ottawa National Forests. These forests contain approximately 2,500 miles of trails and forest roads, which are typically designated for both motorized and nonmotorized uses.

The U.S. Forest Service helps to manage access to vast natural resources for a variety of trail uses. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

State Agencies

There are a number of state agencies active in trail management in Michigan. State agencies typically are created or structured through gubernatorial (i.e., executive) and/or legislative action and have varying policy objectives, which include implementing new programs and enforcing statutory laws along with rule-making and administrative order authority.

Each agency is responsible for the administration and oversight of a specific public service. Directors of these agencies are appointed by the Governor of Michigan under advice and consent of the Senate. There are three key state agencies actively involved in the development and management of Michigan's trail system. They are the Michigan Department of Transportation (MDOT), the Michigan Department of Natural Resources (DNR), and the Michigan Department of Agriculture and Rural Development (MDARD). There are also a number of state advisory committees and boards and councils that are active in helping to complement agency activity. One of Michigan's legacies in terms of governmental action has been consistent governmental outreach to citizens around the state to serve on advisory boards, councils, and commissions to provide direct citizen input into the actions of state government.

2019 Global Fat Bike Day at Sleepy Hollow State Park. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Michigan Department of Natural Resources

Of the three agencies identified above, the Michigan Department of Natural Resources (DNR) plays the most significant role in trail management in Michigan. It has handled the management and protection of Michigan's natural resources since its origination in 1921 as the Michigan Department of Conservation (Michiganology n.d.). The mission of the DNR is the "commitment to the conservation, protection, management, use and enjoyment of the states, natural and cultural resources for current and future generations" (DNR n.d.a).

Parks and Recreation Division

Housed within the DNR is the Parks and Recreation Division (PRD). In 1993, the parks and boating programs of the DNR were merged to form this recreation-based division. The mission of the PRD is "to acquire, protect, and preserve the natural and cultural features of Michigan's unique resources, and to provide access to land- and water-based, public recreation and educational opportunities" (DNR 2023). The PRD currently manages more than 13,400 miles of state-designated trails and pathways (DNR n.d.d).

The PRD Trails Section focuses primarily on the acquisition, development and management of trails located on state-managed land. It plays an important role in planning for multiple uses on trails for statewide recreational needs. The Trails Section was initially

created in the Forest Management Division and then moved to the PRD as part of an agency reorganization. It currently has about 20 full-time employees, including trail coordinators and trail specialists, property analysts, grant coordinators, a real estate specialist, trail engineers, and a marketing and communications specialist.

In 2021, the PRD published the DNR 2022-2032 Trails Plan, which provides the framework for the DNR's management of state-designated trails through 2032. The plan outlines four key goals (DNR 2021):

1. Manage Michigan's state-designated trail system to **sustainably maintain and improve existing conditions** while supporting the DNR's long-term natural and cultural resource management goals.
2. **Develop and refine funding structures** to ensure state-designated trails provide quality recreation and transportation experiences.
3. **Maintain and improve strong relationships and partnerships** with the public, stakeholders, and other governmental agencies.
4. **Promote Michigan's diverse trail opportunities** to residents and visitors, accurately depicting experiences found throughout the state.

Michigan Trails Advisory Council

Another important governmental organization that was created to help facilitate trail management in Michigan is the Michigan Trails Advisory Council (MTAC). This council is housed within the DNR and was created to advise both the DNR and the governor's office on trail issues and provides an important conduit for resident engagement. The council consists of gubernatorially-appointed citizens representing all the major trail uses in Michigan. The MTAC meets quarterly to take public comment and makes recommendations to help fine-tune the state's motorized and nonmotorized trail system (DNR n.d.c). There are four sub-committees that exist within the council, and they are:

- The Equine Trails Subcommittee (ETS)
- The Snowmobile Advisory Workgroup (SAW)
- The ORV Advisory Workgroup (ORVAW)
- The Nonmotorized Advisory Workgroup (NAW)

Horseback Riding at Fort Custer State Park. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

DNR Grant Programs

The DNR administers a number of grant programs that provide financial assistance to communities and organizations to develop, improve, and maintain recreation facilities and infrastructure (including trails) (DNR n.d.b). Two of those grant programs (the Off-Road Vehicle Trail Improvement Program and the Snowmobile Trail Improvement Program) are specifically intended to fund trail development and maintenance. The DNR grant programs play a significant role in trail funding in Michigan and are discussed in greater detail in other sections of this coursebook.

Michigan Department of Transportation

Another partner in Michigan's trail agency activity is the Michigan Department of Transportation (MDOT). The mission of MDOT is to "serve and connect people, communities, and the economy through transportation" (MDOT n.d.a). MDOT's primary role is to maintain the state trunkline highway system, which includes the interstate freeway system and all the highways and business routes of the state. This department manages all aspects of transportation, which includes both motorized and nonmotorized modes of transportation.

MDOT is incentivized to provide state nonmotorized transportation facilities by the federal Intermodal Surface, Transportation Efficiency Act (ISTEA) which promotes trails, pathways, and pedestrian walkways (USDOT 1993). The ISTEA is one of the principal federal laws through which funding is provided for trail development throughout the United States. To help gauge transportation needs throughout the state, MDOT hosts nonmotorized committees in each region of Michigan. This regional planning approach works to ensure that all planning for projects and development is done in accordance with the Michigan "Complete Streets" program.

Complete Streets

The Complete Streets program is a coordinated planning process to ensure that streets are designed and operated to provide safe use and support mobility for all types of users, including people of all ages and abilities, regardless of whether they are traveling as drivers, pedestrians, bicyclists, or in public transportation vehicles. Public Act 135 of 2010 defines "complete streets" as "roadways planned, designed, and built to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive devise, foot, or bicycle" (MCL 247.660p Section 10p [a]).[1] Complete streets projects often result in new facilities for non-motorized users, which may or may not be "separated pathways" (i.e., trails) (MDOT n.d.b). The Complete Streets Advisory Council, which was dissolved in 2015, provided education and advice to all agencies at the state and local level for the development, implementation, and coordination of complete street policies (Schulz 2015).

1. See Appendix A for the complete text of Public Acts 134 and 135 of 2010. Among other provisions, these acts required the State Transportation Commission to adopt a Complete Streets policy for MDOT and amended the Michigan Planning Enabling Act to require local government master plans to provide for the safe and efficient movement of all street users (i.e., motor vehicles, bicycles, pedestrians, and other legal street users).

Michigan's complete street program helps to promote safe and consistent access to sustainable transportation. © The Detroit Greenway Coalition. All rights reserved. Used with permission.

MDOT Grant Programs

MDOT administers two federal funding programs for competitive non-motorized facilities and projects to support the safety and mobility of people traveling on foot or by bicycle. These two programs are the Transportation Alternatives Program (TAP) and the Safe Routes to School (SRTS) program. Although MDOT plays an important role in supporting trail projects throughout the state, it frequently looks to the DNR to take the lead in broader statewide planning for trail development and trail policy.

Transportation Alternatives Program

The Transportation Alternatives Program (TAP) is a competitive grant program that uses federal transportation funds designated by Congress for "specific activities that enhance intermodal transportation system and provide safe alternative transportation options" (MDOT n.d.c). This program is focused on funding projects that provide transportation alternatives, including pedestrian and bicycle facilities, recreational trail projects, and the SRTS program. There were 41.4 TAP-funded miles in Michigan in 2023 ($24.5 million in funding).

Examples of TAP-funded projects include the Pere Marquette Rail Trail and the Detroit Riverwalk—Milliken State Park projects (MDOT n.d.c).

Safe Routes to School

The Safe Routes to School (SRTS) program is a statewide transportation planning program that was created in 2005 under the federal Safe, Accountable, Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The SRTS program has three distinct purposes (Michigan Fitness Foundation 2021):

- To enable and encourage all children to walk and bike to school,
- To make bicycling and walking to school safer and more appealing, and
- To facilitate the planning, development, and implementation of activities that will improve student health and safety, while also reducing traffic, fuel consumption, and air pollution near schools.

Approximately $3 million in federal funding is allocated for Michigan SRTS projects every year (Armstrong n.d.).

Michigan Department of Agriculture and Rural Development

A third state agency engaged in trail development in Michigan is the Michigan Department of Agriculture and Rural Development (MDARD). This department was created in 1921 as the Michigan Department of Agriculture to enforce state laws regarding agricultural production and distribution. MDARD's mission is to "assure the food safety, agricultural, environmental, and economic interests of the people of Michigan are met through service, partnership, and collaboration" (MDARD n.d.a). It plays an important role in helping promote trails within the farming sector by encouraging a successful interface between trail use and farm activities.

MDARD awards Rural Development Fund grants designed to promote the sustainability of land-based industries and support infrastructure that benefits rural communities, which can include trail and greenway development (MDARD n.d.b). Recent examples of rural development grant awards that supported trails include a grant for $100,000 which provided funding for maintenance equipment for the Iron Ore Heritage Trail and $100,000 grant to fund connections between the River Trails, LLC Trail System and the Pilgrim River Trail. Both grants were awarded in 2023 (MDARD n.d.c).

Local Units of Government and Regional

Planning Commissions

Local units of government are governmental bodies that are responsible for a broad range of services over a defined political jurisdiction—either county, city, township, or village. One of the most important services they provide for trail development is land use planning, which is typically done through a planning commission. Planning commissions are governmental bodies that work within local units of government to provide guidance and make decisions regarding land use planning and development. A few examples of local units of government and planning commissions in Michigan that are active in trail building are Oakland County and its planning commission, the City of South Haven, and the Genessee County Metropolitan Planning Commission.

Oakland County

One local unit of government that is deserving of particular focus for its success in developing a sustainable trail system is Oakland County. The county and its planning commission have been actively involved in planning and developing non-motorized trails and pathways for over 40 years. The Oakland County Trails Master Plan provides a framework for creating a connected system of greenways and trails throughout Oakland County and has been a roadmap for an expansive trail development in this county (Oakland County Trails Advisory Council 2008). The Oakland County Parks System includes nearly 80 miles of trails that are available for year-round use with additional trail mileage in the planning phase (Oakland County n.d.). Much of the work in Oakland County is guided by the Oakland County Trails Advisory Council and county's Trail Network Coordinator.

The City of Oak Park in Oakland County incorporates trail based placemaking. © Oakland County Planning Division. All rights reserved. Used with permission.

City of South Haven

An example of a city that has demonstrated success in trail building is the city of South Haven. South Haven planning officials have prioritized trail and greenways development for a number of years as residents within the city have consistently supported trail development. The city's Pedestrian, Bicycle and Paddle Plan provides a framework to "enhance the overall pedestrian, bicycling and paddling experience, and to encourage healthy lifestyles benefiting from non-motorized transportation" (City of South Haven 2009). South Haven was one of the first cities to be designated as a Pure Michigan Trail Town and has over 48 miles of hiking and biking trails along with 91 miles of water trails and 11 miles of horseback riding trails (South Haven VanBuren County Convention and Visitors Bureau n.d.).

Genesee County Metropolitan Planning Commission

The Genesee County Metropolitan Planning Commission functions as support to the Genesee County Metropolitan Alliance, which is the planning organization for the Flint and Genesee County area. This commission consists of 11 individuals and has been largely responsible for the development of the Genesee County Regional Non-Motorized Plan that

provides a framework for creating an interconnected system of trailways throughout Genesee County (Genesee County Metropolitan Planning Commission 2014 and n.d.). There are over 81 miles of non-motorized pathways in Genesee County (Genesee County Metropolitan Planning Commission 2014).

Nonprofit Organizations

Michigan is fortunate to have a large number of trail and greenway-specific nonprofit organizations, whose focus has been to partner with federal, state, and local agencies in the development and maintenance of both motorized and non-motorized trails. Examples of significant nonprofit organizations that are active in Michigan are American Trails, the Michigan Mountain Biking Association (MMBA), Michigan Trail Riders Association (MTRA), Michigan State University Sea Grant program, Paddle Antrim, the Top of Michigan Trails Council, and the West Michigan Trails and Greenways Coalition. Some of these key organizations are highlighted below.

The Michigan Snowmobile and Off-Road Vehicle Association is a vital component of Michigan's efforts to promote snowmobile and ORV use. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Michigan Trails and Greenways Alliance

One of the most successful statewide organizations is the Michigan Trails and Greenways Alliance (MTGA), which was founded in 1986 as the Michigan Chapter of the national Rails To Trails Conservancy (MTGA n.d.a). MTGA's mission is to be "the statewide voice for non-motorized trail users, helping people build, connect and promote trails for healthier and more prosperous Michigan" (MTGA n.d.b). The organization advocates for, promotes, and enables trail work all over Michigan with a focus on maintaining Michigan's national leadership role in both land and water trails.

North Country Trail Association

A larger multi-state regional organization is the North Country Trail Association (NCTA), whose trail assets cover about 1,150 miles in Michigan and includes trails in several other neighboring states (NCTA n.d.). The mission of the NCTA is "to develop, maintain, protect and promote the North Country National Scenic Trail as the premier hiking path across the northern tier of the United States through a trail-wide coalition of volunteers and partners" (NCTA 2022). The NCTA frequently partners with the National Park Service and the United States Forest Service to unite individuals, groups, corporate sponsors, and others to maintain the North Country Trail.

Traverse Area Recreation and Transportation Trails, Inc.

Another regional organization is the Traverse Area Recreation and Transportation Trails, Inc. (TART). TART was formed in 1990 when four individual trail groups in the Traverse City area united to "create a stronger force for recreation and alternative transportation in northwest Michigan" (TART n.d.). TART's mission is to "provide and promote a trail network that enriches people and communities throughout the greater Traverse region" (TART n.d.). The organization's work includes negotiating easements, building and maintaining trails, hosting annual events, and advocating for active living and outdoor recreation.

Friends Groups

Complementing the work of these agencies and nonprofit organizations are numerous "trail friends" groups that are active all over Michigan. "Friends groups" are groups of like-minded people who come together to improve the appearance, facilities, conservation, and safety of a

trail, park or recreation area. These groups often develop into nonprofit organizations and help in provide fundraising, recruit volunteers, lead restoration projects, and provide educational programs for the public. Some of the more active and successful friends group organizations are the Friends of the Kal-Haven Trail, the Friends of the Lakelands State Park Trail (now the Mike Levine State Park), and the Friends of the Betsie Valley Trail.

Conclusion

With all these organizations active in Michigan helping to promote and build trails, cooperation and coordination of these resources is often the key to successful trail work. Organizations working together can tackle issues and projects that are frequently too large or complex for a single organization to handle. There are many benefits of cooperation, such as sharing resources, fostering the exchange of ideas, enabling organizations to operate more efficiently, building support for projects, and minimizing conflicts among user groups. Michigan is fortunate to have these organizational resources available. Continued cooperation and collaboration will ultimately lead to more sustainable trail projects.

Group Discussion Topics

The development and management of Michigan's trail system is complex and carried out by many different organizations. As we look to the future and work to create a statewide interconnected system of trails, partnerships and cooperation amongst trail organizations will be increasingly important. Specifically, where do you see opportunities for expansion of partnerships or creation of new partnerships between trail organizations? Please describe two of the most important state and federal agencies involved with trail management and what improvements would you make in how those agencies operate to build and maintain trails.

Non-profit organizations and "friends groups" play an invaluable role in helping to preserve and support Michigan's trail system. Please describe some of the specific ways in which these organizations contribute to the development and management of the trail system.

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4.

TRAILS AS LAND USE AND PUBLIC ACCESS TOOLS IN MICHIGAN

"The planning phase is one of the most critical steps in creating a quality linked trail network. It is essential to gather pertinent information, identify challenges and opportunities, conduct meaningful public engagement, and collaborate with all stakeholders. Carrying out a detailed planning process early on in a project will also help to identify potential funding sources and lay the groundwork for future design, construction, programming, and maintenance activities."

—Kristen Wiltfang, Oakland County Department of Economic Development, Administrator—Trails, Transportation, and Environment

Chapter Objectives and Goals

This chapter will discuss the significant role played by trails in providing the public with sustainable access to natural resources to serve public interest. Trails provide more than recreation and transportation corridors as they are valuable land use tools used at federal, state, and local levels to conserve natural resources and provide numerous other benefits. As communities plan for their future land uses, trails are an important land use tool to link communities, provide buffers from development, protect natural resources, and increase property values. This chapter also highlights the role of public engagement in trail planning. It is important for readers to appreciate the significant role that trails can play in land use planning,

business attraction and retention, and helping to provide a higher quality of life for residents within and in proximity to trail-based communities.

Key Questions to Consider as You Read this Chapter:

1. What is an essential goal of any land use planning effort?
2. Explain the connection between federal, state, and local land use planning.
3. How do trails help preserve open space and protect sensitive areas?
4. In what ways do trails provide social benefits for a community and its residents?
5. What is the most important early component in any land use plan?
6. How can trails help create a stronger sense of community?
7. How can trails protect natural resources, while still providing access?
8. Why is it so important to have one or two key individuals acting to lead a vision for local trails?
9. What are some of the benefits of a multi-jurisdictional trail?
10. Why are trails politically popular?

Introduction

Trails are a valuable land use tool that provide many benefits, including, but not limited to:

- Creating conservation corridors to protect wildlife habitat and natural resources
- Enhancing local recreation plans and community master plans
- Promoting local history and culture
- Connecting people and communities
- Supporting of local and regional economies
- Increasing local and regional transportation routes

For these reasons, land use planning in any community is enhanced when trails are included as part of the planning process.

What is Land Use Planning?

Land use planning is an orderly, systematic approach to managing the built infrastructure, land, natural features, and water resources within a community to preserve the essential, desired characteristics of a community. It is a dynamic and ongoing process that is fed by citizen engagement and guided by planning professionals with the ultimate goal of effectively meeting the needs of today and conserving resources for many generations to come.

Planning can be carried out at a variety of governmental levels. For example, land use planning at the federal level can be seen through the national park and forest systems, highway systems, coastal zone management areas, and many other national programs. There are also significant state-based land use programs that can interact with local planning efforts. For example, state conservation programs that provide protection for natural areas like wetlands, sand dunes, and natural rivers can help provide conservation buffers and complementary benefits to local planning programs. Planning becomes more focused and relevant to local residents as it progresses down through the layers of government. As compared to other governmental levels, land use planning at the local level (i.e., city, county, township, or village) can be more precise and therefore more capable of reflecting the will of members of the local community.

Home Rule in Michigan

Michigan is a "home rule" state, meaning that local governments are granted general powers of self-governance related to matters of local concern, with some limitations around fiscal authority (LSSC 2019). The Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) and the Michigan Zoning Enabling Act (Public Act 110 of 2006, as amended) grant local governments the authority to develop and enforce local zoning ordinances. It is important to note that a land use plan is a guide, while a zoning ordinance is the enforceable law.

Outcomes of Effective Land Use Planning

Because citizen engagement in the planning process is critical, most observers agree that comprehensive land use planning is often most effective at the local level. There are several important outcomes associated with effective land use planning, such as:

- Allows residents to feel empowered to express their needs in the community
- Promotes inclusive, diverse, and connected communities
- Considers a mix of transportation infrastructure for walking, micromobility/biking, people with disabilities, transit, freight, and motor vehicles

- Emphasizes the importance of quality of place
- Encourages more efficient and effective governments
- Recommends the review and update of policies and zoning ordinances
- Analyzes a variety of data such as demographics, land cover, existing land uses, spending habits, housing stock, public health, economic, and workforce characteristics
- Creates and supports more sustainable futures for the community and regions of the state
- Supports business attraction and retention which can be a draw for well qualified workers

Trails provide valuable public access to outdoor recreation for families.

Components of Land Use Plans

There are essential components that should be found in any effective land use plan such as regular public input and coordination with multiple levels of government, key stakeholders, and adjacent communities. Land use plans also need to be adaptable, flexible, and responsive to changes in conditions. As such, land use planning requires regular revisions, typically every five years, and monitoring by both local planning officials and residents so that as conditions and needs within a community change, land use plans can change accordingly.

Once a plan is developed, enforceable land use mechanisms such as zoning ordinances, conservation easements, site plan reviews, and property acquisitions (e.g., purchases of land by a local unit of government or partnering land conservancy) are important tools to implement the recommendations of the planners. For most communities, zoning compliance is the most frequently used tool and provides for both specific and general categories of land use within a community.

Land Use Planning and Trails

Land use plans typically include guidelines and goals for the conservation of both natural and man-made features. Because of the opportunities that trails can provide to advance those conservation efforts and other related benefits, many communities include trails and trail development in their land use plans. Communities such as Traverse City, Detroit, Oakland Township, Meridian Township, Marquette, Grand Rapids, Pinckney, Charlevoix, East Tawas, Ann Arbor, South Haven, and Kalamazoo are examples of trail-rich communities that have made a concerted effort to include trails as essential infrastructure incorporated into their plans. The following sections outline the main benefits of including trails in land use plans.

Trails Protect and Provide Access to Natural Resources

Trails serving as conservation corridors can help preserve open space and protect sensitive environmental areas such as wetlands, woodlands, steep slopes, and wildlife habitat. They can also help maintain naturally functioning ecosystems. Trail systems can help establish a network of natural landscape corridors that provide buffers from built infrastructure (e.g., roads, buildings, parking lots, and utilities), help manage stormwater runoff, and reduce impacts of development on the natural environment.

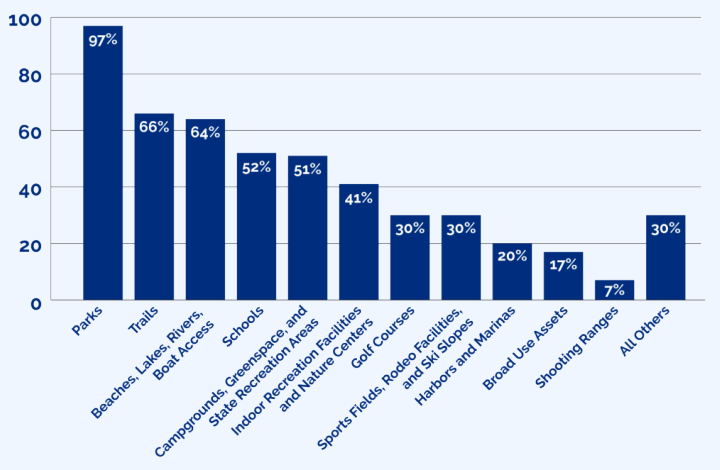
Brighton State Recreation Volunteer Stewardship. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Trails Support Local Recreational Needs

Trails also help support local recreational needs by providing a wide variety of opportunities such as hiking, bicycling, canoeing, kayaking, motorized recreational vehicle use, equestrian use (e.g., horseback riding and driving), and seasonal opportunities like cross-country skiing and snowmobiling. Supporting these recreation activities also helps promote healthy active lifestyles. Trail use has been linked to improvements in a community's collective physical and mental health (American Trails Staff n.d.).

Local recreation and planning officials strive to develop appropriate recreational facilities that reflect the needs of residents. Recent Michigan Department of Natural Resources (DNR) studies indicate that trails have been and continue to remain among the most popular recreational amenities included in local five-year recreation master plans. For example, in a survey conducted during the development of the 2018-2022 Michigan Statewide Comprehensive Outdoor Recreation Plan (SCORP), the DNR found that 66 percent of all local five-year recreation master plans list trails as an outdoor recreation asset (Exhibit 1).

Exhibit 1. Percentage of Five-Year Master Plans that Include Lists of Outdoor Recreation Assets



Source: DNR 2018

Many local recreation plans utilize trails to connect existing parks and facilitate event planning for a variety of recreational activities (e.g., running, biking, kayaking, etc.). The Little Traverse Bay Marathon is an excellent example of an event that utilizes a trail corridor to support a safe and exciting running event along the Lake Michigan shoreline.

Trails Promote Local History and Cultural Assets

Many land use planners incorporate historical and cultural features into the planning of a community. Preserving historical sites provides an opportunity for people to understand the heritage of an area. Trails are an excellent method of promoting local history and culturally significant destinations. There are many trails in Michigan that utilize interpretive elements to convey the historical and/or cultural context of the area. These interpretive efforts can range from physical signs to technology that utilizes mobile applications, to physical pieces of art and artifacts, and even guided tours along the trail.

Trails Connect Communities

A mile marker along the 16 mile Clinton River Trail. A trail that resulted from multi jurisdictional planning and development. © Oakland County Planning Division. All rights reserved. Used with permission.

Trails can also facilitate social connections for members within a community and neighboring communities by helping to build new and existing relationships between the community and public and private groups. Because the development and management of a trail often requires cooperation and coordination, private landowners, land conservancies, developers, recreation and environmental groups, and public agencies all need to work together. This cooperation can help develop a sense of collective pride and investment in trails, which can also lead to other benefits for the community. Trails can also link neighborhoods with parks, recreation areas, schools, business, natural features, downtowns, and cultural points of interest. In this way, trails clearly connect people and build stronger communities.

Trails Benefit Local Economies

There are many well-demonstrated positive economic effects of trail development to a community. Studies have shown that properties near trails typically increase in value and that the presence of trails increases local tourism and related business and industry expenditures (Webel 2018). Trails also help attract and support new business opportunities and job creation. A 2011 study found that pedestrian and bicycle infrastructure projects create between eight to twelve jobs per $1 million in investment and create opportunities for adjacent and nearby developments, both residential and commercial (Garrett-Peltier 2011).

Trails Serve as Transportation Routes

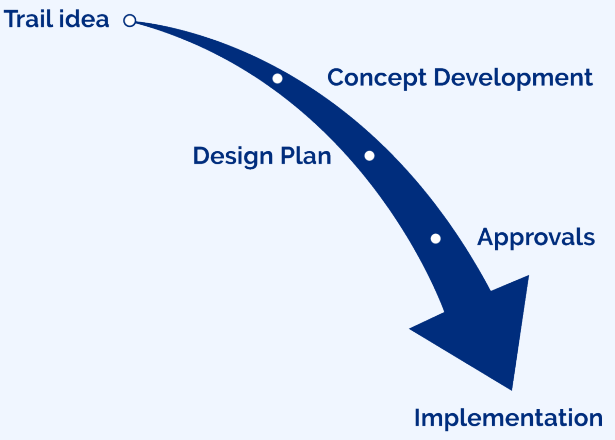
Trails can serve as local, sustainable, "alternative" transportation routes. Initiatives such as the Safe Routes to School, Safe Routes to Parks, and Complete Streets programs provide funding and support for such routes. These alternative methods of transportation help reduce a community's carbon footprint and promote a healthy lifestyle for everyday travel trips, commuting, and other transportation needs. In addition, since every transit trip starts with walking or rolling, trails can offer transit users safe, welcoming connections to and from bus routes.

Trails and Greenway Planning

A trail plan (also sometimes referred to as a "greenway" plan) is a document that outlines goals and objectives for the development and maintenance of a trail system. A trail plan can stand alone, or it can be part of a comprehensive master plan for a community. If the trail plan is a standalone document at some point it should be effectively coordinated with the community's

larger land use plan. As illustrated in Exhibit 2, there are several stages in the development of a trail plan that mirror the land use planning process.

Exhibit 2. Stages in the Trail Planning Process



The early planning process is the most important step in developing a trail plan. During this stage of the process, planners discuss concepts and engage with the public and key stakeholders, on the following topics including (but not limited to), route alternatives, legislation and policy considerations, accessibility, potential barriers or challenges, signage, maintenance, cost estimates, and funding sources. Any trail concept must be grounded in the principles of sustainability so that what is built can be effectively maintained in the future given available resources. Next, planners establish goals and objectives and identify specific action items which will help guide the implementation of the plan. The planning process culminates in a written plan that outlines all relevant material and includes maps of existing and proposed trails and major destinations. Trail plans often require approval from local public officials.

Trail planning often starts with one or two individuals or an organization that has a vision for a trail in the community. It is important to identify a local champion who is willing to spearhead the project and invest time in becoming a trail leader or trail stewardship coordinator. There are many instances where a trail has been successfully started when one

person steps up to lead the initiative and works to build community support from the outset. That person is generally both passionate and persuasive and helps "prime the pump" in getting early local endorsements and obtaining early sources of funding.

Public participation is a critical element of any successful trail plan. It is important to develop and foster stakeholder relationships and seek public input early in the process. Through regular meetings and using a variety of outreach methods, the trail planning process can gain meaningful input, identify potential concerns, evolve the project, and keep people informed. It is essential to develop effective communications with the area residents, business owners, elected officials, utility companies, and other key stakeholders. Finding ways to generate excitement for the plan and keeping momentum going forward is also critical.

How to Design a Connected Trail Network

1. Develop a base map with pertinent information like parks, existing trails, natural features, road network, historic sites, schools, scenic vistas, town centers, and commercial corridors.
2. Identify existing and future population densities. Make sure trails are in close proximity to the densely populated areas.
3. Identify the user types permitted to use the trail like pedestrians, cyclists, and/or equestrians.
4. Identify important destinations and community features to be linked by the trail network such as town centers, parks, natural areas, libraries, historic sites, job centers, and schools.
5. Consider the different corridor options for a trail such as a utility corridor, park, former railroad corridor, along parcel boundaries, road rights-of-way or riparian corridors.
6. Identify potential conflicts or barriers that may include sensitive natural areas, steep slopes, road or driveway crossings, or unsupportive adjacent property owners.
7. Look beyond the local municipal boundaries and work with adjacent communities to make connections.
8. Identify potential trailheads, access points, and locations for amenities like restrooms, drinking fountains, or bike repair stations.
9. Develop a method to measure and track success and implementation of the plan.

Regionalization of Trails

Michigan is fortunate to have statutory law that encourages the development of multi-jurisdictional interconnected trail systems. The statutory authorization and legislative intent found in the Michigan Trailways Act (MTA) has helped fuel the development of many such

interconnected trail networks around the state. The Great Lake-to-Lake Trail, Route 1 that stretches from South Haven and Port Huron is an example of an interconnected network that allows for a trail user to move from Lake Michigan to Lake Huron.

Multi-jurisdictional Trail Planning Councils

The MTA specifically allows for the creation of multi-jurisdictional trail planning councils that help coordinate with communities within a region in their efforts to build and manage trails. Each local unit of government that exists within a trail corridor can be represented on such a trail-governing council, effectively managing a trail that has multiple benefits for the region.

"Trailshed" Management

Watershed management is a regional planning concept that coordinates the conservation and management of water resources within a region. Trail managers around the state are beginning to apply a similar regional approach in managing trails. This concept of "trailshed" management can help drive a trail plan that coordinates local resources and needs with regional, state, and federal resources and needs.

Conclusion

Land use planning can sometimes be a controversial issue in Michigan, due to a variety of policy and political issues. Incorporating trail planning into broader land use plans can provide opportunities for more successful and effective land use planning for a number of reasons:

- Trails are often a non-threatening land use tool that can protect property rights and accommodate and promote business and consumer use while simultaneously protecting natural resources.
- Trails are often politically popular, and generally not controversial as long as the vision is communicated early and often.
- Trails promote diverse access and sustainable uses of a community's natural resource base.
- Trails provide an opportunity to connect people and their communities, both literally and figuratively.

All governments owe a responsibility to the people to serve the public interest and promote the public good. Trails provide a unique solution to that challenge so long as they are built to provide access and sustain natural resources. An effective land use planning and implementation process at the local level can help government meet that doctrinal charge. In times of shifting social circumstances where there is a real need for people to connect with one another and the natural resources that grace their communities, having a vibrant and sustainable trail system is a critical component for making communities stronger and healthier.

Group Discussion Topics

The Public Trust Doctrine (PTD) is rooted in early English and Roman law. Since then, it has evolved through time to address added development pressures in order to continue to provide public access. Please describe the key differences and similarities between the early foundations of PTD and PTD as we know it today in the United States.

Trails are declared "a public purpose" in the Michigan Trailways Act. In terms of guiding future legislative decisions, why is this significant? What proposal would you make to help increase accessibility of the public in Michigan to our trails? Where do we need to improve accessibility and long-term availability of our trails?

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5.

TRAILS AND PRIVATE PROPERTY RIGHTS IN MICHIGAN

"Local support is critical to building a successful and sustainable trail. Landowners adjacent to the proposed trail need to be included in the initial design, considering their concerns. Education on what that particular trail brings to the community needs to be part of the conversation with adjacent landowners. By laying out this kind of initial involvement at the early planning stage, local support will be inclusive and sustaining."

—JOHN CALVERT, Trail Advocate and member of the Friends of the Lakeland Trail and Calhoun Trailway

Chapter Objectives and Goals

Because trails sited on or near private property can lead to increased public access and therefore increased recreational activity, there are always going to be concerns with how trails can impact private property rights. In this chapter, common landowner concerns like trespass, vandalism, impacts on property values, and effects on farming and other land-based activities will be discussed. Readers of this chapter will come to appreciate and understand the significant outreach and coordination that trail managers need to provide to nearby property owners to facilitate successful trail planning and management.

Key Questions to Consider as you Read this Chapter:

1. Why should trail planners and managers be concerned about adjacent landowners and their exposure to trail users?
2. What important statutory provisions did the Michigan legislature establish to help protect landowners from trespass and liability concerns?
3. What are some examples of concerns that property owners may have with potential trail development nearby or adjacent to their private property?
4. What are some examples of options that are available to landowners when a trail is being proposed in a corridor adjacent to their property?
5. What are some proactive steps trail planners and trail managers can take to address concerns expressed by adjacent landowners?
6. What are some actions a trail manager can take to reduce their liability exposure?
7. How can signage help ensure safe activity on a trail?
8. How can trail design increase trail safety?
9. Outside of exercising statutory protections, what are some measures that a trail manager or trail organization can take to protect themselves against liability exposure?
10. Does governmental immunity provide liability protections for trails that are not owned or managed by a government entity?

Introduction

Private property rights broadly include the rights of people to acquire, use, and dispose of property freely. They are guaranteed in both the Michigan and United States constitutions and are also protected by state law, subject to appropriate restrictions. Respecting private property rights and mitigating liability concerns should always be a priority among the issues being considered when developing or expanding trails. Landowner-related issues can derail the potential for a trail and cause significant disharmony in the community. It is not unusual for new trail supporters to face significant opposition when building trails that either cross private property or are located near private property. It is imperative that trail managers and trail advocates anticipate these issues and clearly communicate draft plans and proposals early so concerns can be adequately addressed.

Landowner Liability and Recreational Use

Generally, a landowner or operator of land is not liable for injuries caused to those recreating on their land as long as property boundaries are adequately posted and they have maintained certain standards or duty of care to protect visitors from injuries. Although the "standard of care" can vary based on the conditions and use of the land, landowners must refrain from acts that constitute gross negligence and willful and wanton misconduct. In addition, if compensation is paid by the user (e.g., an access fee), then a higher standard of care may be required of the landowner and operator.

Basic Questions Related to Recreational Use

There are four basic questions that landowners should ask themselves and others regarding the potential for their land to be used in a recreational capacity:

1. What are my rights and how do I exercise them to control the recreational use of my property?
2. What is the extent of my liability exposure to recreational users and how can I protect myself against liability suits?
3. Will the value of my property that is located near trails be impacted in any way?
4. What concerns should I have for increased crime and vandalism and trespass on my property if it is located nearby or on a recreational trail?

Options for Landowners

There are several options available for landowners to take when contemplating the possibility of a trail being sited in a corridor adjacent to or on their property.

- They may utilize a barrier to prohibit access by others.
- They may agree to allow access for users and organizations to access private property through a guided easement.
- In addition to allowing access through an easement, they may also agree to act as a land manager in actively managing and controlling the use of the land for a trail.
- They may choose to sell or donate their land for use as a trail.

Trail use rules must always incorporate respect for private property rights, 2017. By Bob Wilson, CC BY-NC 4.0.

Key Statutes Addressing Private Property

Rights and Liability Concerns

The Michigan legislature has provided statutory guidance regarding how private property rights are impacted by trail use. The Michigan Trailways Act (MTA)[1] and the Recreational Trespass Act (RTA)[2] are both cornerstones of statutory trail law in Michigan. Both acts provide guidance and tools for landowners considering trail development, either on or nearby their property.

Michigan Trailways Act

The Michigan Trailways Act was one of the most important legislative steps in helping establish legislative concern for protecting private property rights. During the development of the MTA in the 1990s, one of the key issues that the legislature contemplated was increasing concerns of property owners related to the development of trails near their land. The early days of trail building in Michigan included significant opposition from nearby property owners because of concerns of trespass and vandalism.

1. See Appendix A for the complete text of the Michigan Trailways Act (Part 721 of NREPA); MCL 324.72101 to 324.72118

2. See Appendix A for the complete text of the Recreational Trespass Act (Part 731 of NREPA); MCL 324.73101 to 324.73111

Listening to and with the public helps to garner respect for trail use, 2019. By Bob Wilson, CC BY-NC 4.0.

MTA and Farming-Related Issues

Key provisions of the MTA allow for the closure of a trail to provide opportunities for farming operations (e.g., pesticide application and other appropriate farming-related activities). For example, in agricultural areas, a trail may be temporarily closed by the organization operating the trail to allow for pesticide application on land adjoining the trail. The MTA also includes key provisions that allow for the promotion of farming activities and that reinforce the importance of signage and education to alert trail users to farming other and adjacent private property activities.

Recreational Trespass and Recreational Use Acts

The RTA was passed by the Michigan legislature to address issues with trespass on private land related to a host of recreational activities like hunting, fishing, and trail use. The Recreational Trespass Act provides significant protections for landowners to guard against unwanted intrusions onto private land.

Importantly, a companion statute, the Recreational Use Act (also referred to as the Landowner Liability Act)[3], was also passed to provide protections for landowners who want to allow access to their property, with specific exemptions from liability if they follow an appropriate standard of care. It is important to note that this liability protection may not protect landowners if either gross negligence or willful or wanton misconduct occurs.

Working with Landowners

Given the aforementioned landowner options and guidance provided under the law, how should trail managers proceed in a way that both promotes trail use and addresses concerns with private property rights, particularly in communities where there is already opposition to either a new trail or the expansion of an existing trail? There are several critical steps that trail planners and managers should take in a planned and coordinated manner to work with property owners who may have concerns or may have even actively opposed a trail. Some of these options include (but are not limited to):

- Facilitate listening sessions with nearby landowners and incorporate their feedback. Acknowledge their concerns and try to create partnerships.

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3. See Appendix A for the complete text of Part 733 of NREPA (Liability of Landowners); MCL 324.73301 to 324.73302

- Work with key stakeholders who support the trail to develop a larger core of supporters in the area.
- As early as possible, let landowners know of plans and be sensitive to their concerns. Offer them multiple opportunities to provide input.
- When designing the proposed trail, find ways to highlight local landowners and their role in the community (e.g., through history and marketing campaigns). This is a great opportunity to promote the historical and cultural background of the area and include those longtime property owners who are deeply connected to the land in the process.
- Recruit a few longtime landowners to serve on a volunteer organization that is set up to support the trail. Their influence in the community can be beneficial to the group.
- Consider setting up a segment of trail as a pilot project to demonstrate how the trail will benefit area landowners.
- Take your time and always show respect and support for any adjacent landowner concerns.

Once a trail has been developed, issues with adjacent landowners may still continue. Landowners and trail managers have ongoing responsibilities to minimize risk and improve trail experiences, which include ensuring that adjacent landowners and their property is being used as agreed upon. The fundamental success of any trail is, in large part, hinged on the development and nurturing of relationships of trust and remaining sensitive to any emerging land-based concerns.

The Michigan Trailways Act encourages respect for adjacent private property owners, 2017. By Bob Wilson, CC BY-NC 4.0.

Risk Reduction Strategies for Trail Managers

Risk reduction strategies protect trail users from unnecessary risk and protect trail managers and landowners from liability for damages. There are three key strategies that trail managers can use to minimize risk and reduce liability: trail design and maintenance, establishment of professional signage and education programs, and maintenance of liability insurance policies. Employing these strategies can avoid conflict with adjacent property owners regarding any injuries that might occur on the trail.

Design and Maintenance

The design and maintenance of trails for safety is of the utmost importance. During the early phases of trail design and development, trail managers should avoid dangerous locations and conditions when selecting trail locations. Any trail facilities and infrastructure should be constructed in accordance with recognized standards and best practices. Trail planners should

also develop a list of permitted trail uses and the risks associated with each and design and design and construct the trail to minimize those risks.

Once the trail has been opened for use, a thorough maintenance and inspection plan should be followed which includes conducting regular maintenance inspections and documenting the results of the inspections and any actions taken to correct those issues.

Signage and Education

Designing a thorough signage and education program is a fundamental element of any good trail plan. Proper signing of a trail provides guidance and helps to safeguard trail user activities, therefore reducing potential liability of owners and managers.

There are three types of signage (FHWA 2023):

1. **Regulatory signs** inform trail users of selected laws or regulations,
2. **Warning signs** are used to caution users of potentially hazardous conditions and
3. **Information or wayfinding signs** provide trail users with information that is not required by law, but that enhances a user's recreational experience.

Types of signage and proper signing of a trail will be discussed in greater detail in a subsequent chapter of this coursebook.

Trail use rules must always incorporate respect for private property rights, 2018. By Bob Wilson, CC BY-NC 4.0.

Liability Insurance

If a unit of government is the owner or manager of a trail, there is a great likelihood that governmental immunity provides significant liability protection. In addition to that protection, most trail managers will engage an insurance company to develop and implement a liability insurance package for trail events. There are several large insurance companies in the United States that sell event liability policies that protect event organizers from claims made against them because of injuries to individual participants and damages done to facilities during an event (e.g., a trail run or mountain biking competition).

Standard of Care Guidance

The statutes cited previously can provide important statutory liability protection. If they do not (i.e., they engage in reckless or wanton and willful misconduct), those land managers or landowners may be exposed to liability. The determination of this level of behavior is based on a case-by-case analysis of the conduct itself. There are obvious examples of misconduct, as well as other situations where misconduct is not so obvious as to pierce liability protection. Trail managers should take the following actions to maintain a high standard of care:

- Obvious and notorious unsafe conditions (e.g., deadfalls, cracked boardwalks, and other obvious safety issues with infrastructure) must always be cured and repaired in a timely fashion, particularly so when the conditions are obviously apparent and known to the public.
- In risky conditions, it is a good practice to notify and educate users of risks involved.
- Trail managers should think of the user groups a trail is designed and managed for and react accordingly with appropriate signage and other cautionary notices.
- Trail managers should conduct routine inspections and follow maintenance plans for critical infrastructure and the trail should be kept up through a high standard of care.

One idea that has been considered to help guide trail managers in their management of a trail is a trail certification program that would provide third-party inspections and certification of both trail design and trail maintenance activities.

Trail managers must maintain boardwalks and fencing to protect users from potential injuries and falls, 2019. By Bob Wilson, CC BY-NC 4.0.

Conclusion

Because the popularity of trails is largely dependent upon the willingness of the public to venture out onto trails, trail managers must take the steps necessary to ensure a safe and healthy outdoor experience. Much of this depends on a good trail management program, but it also depends on having good relationships with adjacent private property owners and ensuring that trail users respect private property rights.

Trail signage can promote the important culture and history of an area leading to better relationships with nearby property owners. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Group Discussion Topics

There is a concern with liability exposure for certain communities that host various types of trails and trail activities. Michigan law provides key liability protections for trail managers and host communities and yet some trail managers may still have a need for a standard of care for trail users. Why did the Michigan Legislature expressly provide these protections? Why do trail managers and landowners have a responsibility to provide for a safe recreational experience for trail users?

A trail certification program could be helpful in ensuring that trail facilities are constructed and maintained in accordance with recognized standards or best practices. What other benefits might such a program provide? Please describe a proposal that would serve to certify Michigan Trails.

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6.

THE EMERGING DEVELOPMENT AND SIGNIFICANCE OF WATER TRAILS IN MICHIGAN

"Water trails are gaining in popularity as community leaders look to increase assets that draw those in the mobile workforce who have the ability to choose where they live. With a relatively low cost, [water trails] can complement land-based trails, natural areas, and other community assets creating a place where people want to live, work, and play."

—MARY BOHLING, District 12 Director, MSU Extension

Chapter Objectives and Goals

Michigan is home to over 3,000 miles of coastal and inland water trails. The Michigan Department of Natural Resources (DNR)'s inland water trail program continues to elevate the role played by water trails in providing public access to important freshwater resources. Key issues such as safety, public access, history and wayfinding signage, and connections to land trails will be discussed in this chapter. In addition, readers will come to appreciate the significant role played by various levels of government and nonprofit organizations in developing a comprehensive water trail program.

Key Questions to Consider as You Read this Chapter

1. What is the history behind Michigan's use of waterways as trails?
2. How have water trails contributed to Michigan's economy?
3. What state and federal programs recognize water trails?
4. What national water trails exist in Michigan?
5. What is the important distinction between a typical water trail in Michigan and a Heritage Water Trail?
6. What are some of the criteria for obtaining a state water trail designation?
7. What is a principal advantage of being designated a Pure Michigan Water Trail?
8. How is the public trust doctrine incorporated into the water trail program in Michigan?
9. What two currently existing state waterways programs could provide future direction for Michigan's water trail program?
10. List some important water trail organizations in Michigan. What do they all have in common?

Introduction

Michigan has an emerging and exciting water trail program, which includes navigable waters that have local, state, or federal water trail designations. Water trails have largely been established throughout the state based on historical use of water corridors, including lakes, rivers, and streams. There are many organizations in Michigan that facilitate the continued Improvement of Michigan's water trail program. This chapter will examine many of these important components of Michigan's water trail program.

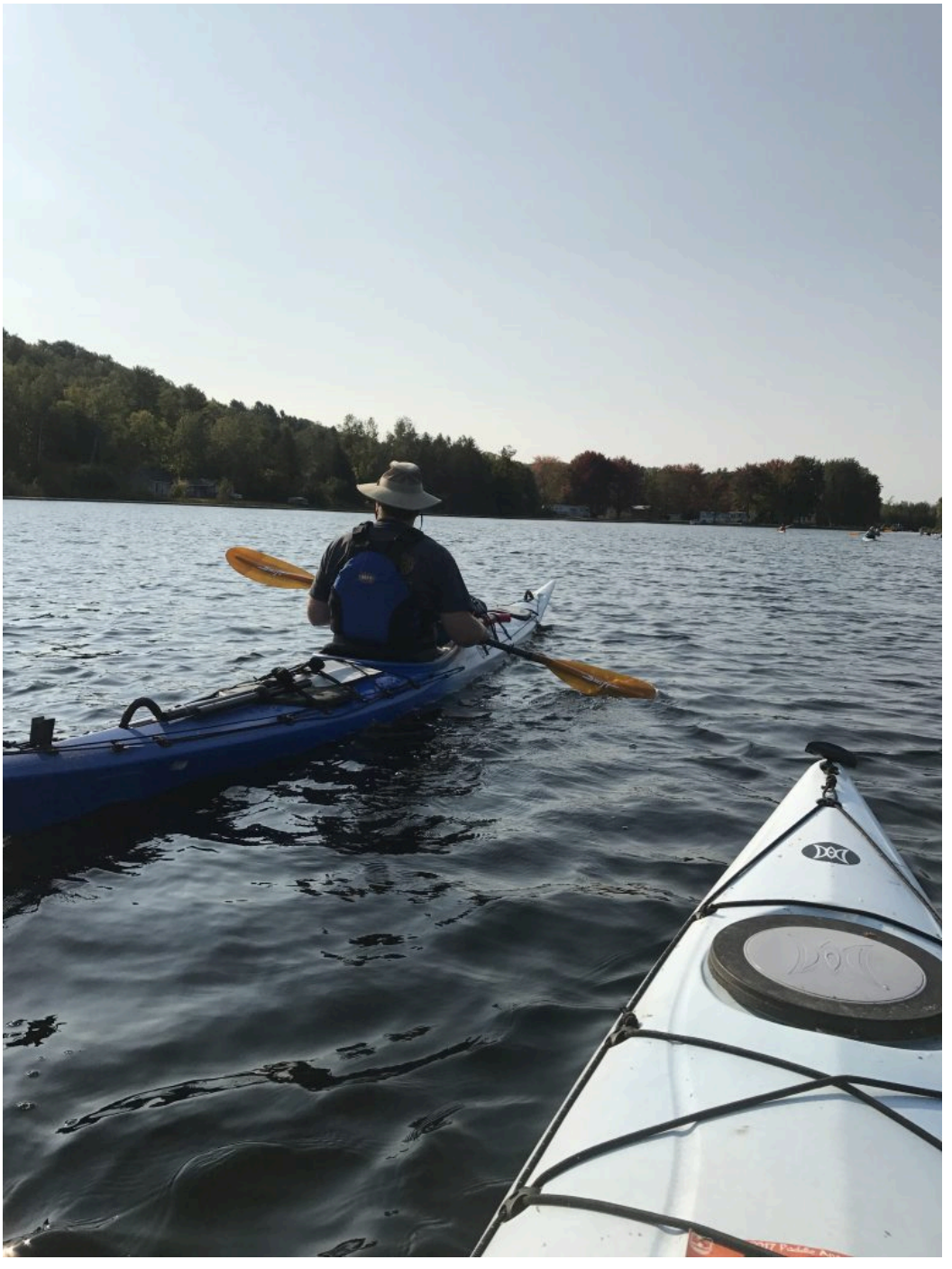
What is a Water Trail?

A water trail is a designated route on a navigable waterway such as a lake, river, canal, or bay, specifically dedicated for recreational use. Depending on the size of the water body and local restrictions, a water trail can be used by both motorized and non-motorized vessels, and it generally supports other public recreation uses that require access to water such as fishing, swimming, and sightseeing. A water trail is typically organized, supported, and managed by a

specific organization and/or community partner that has committed resources for long-term funding, development, and management of the designated trail.

There are several important characteristics of water trails:

- Well-developed access and launch points
- Often located near historical, environmental, or cultural resources
- Provide both conservation and recreation opportunities
- Are easily navigable in terms of routes and way finding
- When located in urban areas, often include nearby amenities such as restaurants, hotels, and liveries
- When located in rural areas, there may be relatively few amenities but will likely include access to primitive campgrounds and basic infrastructure like launches and exit points



Water trails can help to expose people to natural resources and the need for conservation. By Bob Wilson, CC BY-NC 4.0.

Historic Development of Water Trails

Michigan has a rich heritage of water trails, as Native Americans used the waters of the region for transportation and commerce. Early European settlers also utilized lakes, rivers, and streams for commerce. Water corridors helped open the region for an expansive fur trade, and exploration and eventual settlement of distant lands.[1]

The first formal water trail designations occurred in 1963 in Minnesota with the official designations of the Minnesota, St. Croix, Big Fork, and Little Fork Canoe and Boating Routes (Hark 2008). After that, other states and organizations across the nation began following suit and designating their own versions of water trails. Today, designated water trails can be found in nearly every state in the country.

This early development opened the door for additional state and organizational focus on developing water trails. The National Trail System Act (NTSA), passed by Congress in 1968, established the framework for a system of national recreational trails that included both land and water trails (NPS 2019). An amendment to the NSTA in 2012 officially established National Water Trails (NWTs) as a class of National Recreational Trails under this federal program (Bonsall et al n.d.).

The water trail movement in Michigan started through grassroots efforts of interested individuals, communities, and non-profits. In Michigan, we have local, state, and nationally designated water trails. Both the state and federal programs provide specific guidelines and criteria for water trail designation and are important measures to form a consistent water trail program.

National Water Trail Designation

The NWT program guidelines have been established by the Rivers, Trails, and Conservation Assistance Program, which is housed within the National Park Service (NPS). To qualify for NWT designation, an applicant must demonstrate that the trail meets the following criteria (Bonsall et al n.d.):

- The trail is open to the public and is designed, constructed, and maintained according to best management practices.
- The trail is compliant with local land use plans and environmental laws.
- The trail will be open for public use for at least ten consecutive years after formal

1. Additional background and history of water trails in Michigan is examined in more detail in other chapters of this book.

designation.
- The designation is supported by landowners on which access points are located.

Organizations interested in obtaining a water trail designation at the national level should be aware of significant benefits such as national promotion and visibility, positive economic impact from increased tourism, federal assistance with stewardship and sustainability projects, and increased opportunities to obtain technical assistance and funding. There are currently thirty-five nationally designated water trails, which amount to approximately 4,900 of water trail mileage nationwide (American Trails n.d.).

Michigan Water Trail Designation

Given the vast accessibility of water resources in the state of Michigan, water trail advocates pursued the development of a formal state water trail program for several years. The Michigan legislature also anticipated a water trail program with several specific legislative acts that set the groundwork for a water trail program. Michigan statutory law authorizes three specific water trail designations:

- Heritage Water Trails
- Pure Michigan Water Trails
- State Water Trails

Heritage Water Trails

In 2002, the Michigan legislature authorized the creation of the Michigan Heritage Water Trail program with the passage of Public Act 454 of 2002 (Michigan Legislature n.d.a). This program was established to help guide local advocates in the creation of water trails that helped celebrate local history, culture, and natural resources (Burkholder and Cowall 2017). Michigan has a number of designated heritage water trails that are well known for their interpretive features.

Pure Michigan Water Trails

An important marketing and promotional component of Michigan's water trail program includes the opportunity to obtain a designation as a Pure Michigan Water Trail. In 2014, the legislature passed Public Act 210, which amended the Michigan Trailways Act to allow for the director of the Michigan Department of Natural Resources (DNR) to designate a Pure

Michigan Water Trail. These water trails are exceptional Michigan water trails that are regarded as model trails for their designated uses (DNR n.d.a).

State Water Trails

In 2016, the DNR drafted a framework for a new state water trail designation program (Burkholder and Cowall 2017). Many of the components of this program mirror the federal designation. Under the framework, state officials developed criteria for state water trail designation. To receive a state water trail designation, the water trail must (Michigan Water Trails 2021):

- Provide a quality experience
- Provide clear information for users
- Demonstrate broad community support
- Demonstrate a sustainable business, maintenance, and marketing plan

The DNR water trail program includes three different categories of water trail designations:

1. **Non-Motorized Inland Water Trail:** can be located along any water system not on the Great Lakes
2. **Great Lakes Water Trail:** can be located along the shore of any of Michigan's Great Lakes
3. **Motorized Water Trail:** can either be on inland water or the Great Lakes shoreline, and does not have to be exclusively used by motorized vessels

As of June 2024, Michigan has more than 3,000 miles of water trails (Michigan Water Trails n.d.). There are nine state-designated water trails with some significant overlap with trails that have also been designated as NWTs. These state-designated trails include the Central River Raisin Water Trail, Chain of Lakes Water Trail, Huron River Water Trail, the Island Loop Route, Flint River Trail, the Middle Grand River Water Trail, the Shiawassee River Trail, the Upper Grand River Water Trail, and the Clinton River Water Trail (DNR n.d.b).

Legislative leaders join in to engage in a community based kayak event on the Huron River. By Bob Wilson, CC BY-NC 4.0.

Local and Regional Water Trails

One of the principal reasons that Michigan has a burgeoning water trail program is due to the efforts put forward by individuals, organizations, and communities at the local and regional levels in the state. Municipalities and nonprofit organizations have provided much of the foundation for Michigan's evolution in the development and management of a system of water trails. There are at least twenty locally created and managed water trails, with the Saginaw Bay Trail, the Chain of Lakes Water Trail, the Blue Ways of St. Clair, and the Monroe County water trails being prime examples.

An example of a local water trail program is the Blueways of St. Clair, a comprehensive water trail system along the St. Clair River corridor. The Blueways program is managed by the St. Clair County Metropolitan Planning Commission and its Island Loop Route has been designated as both a state and national water trail (Blueways of St. Clair n.d.).

Legal Framework for Water Trail

Development in Michigan

Common Law

The Public Trust Doctrine, which is established in common law requires the government to act as a trustee for the public and its right to access certain natural resources. Two key provisions of Michigan's Constitution also lay out broad responsibilities for the government to provide access to natural resources and to promote public health and welfare.

Constitutional Law

Article 4, Sections 51 and 52, of the Michigan Constitution charges the legislature with protecting and promoting public health and general welfare and protecting natural resources, and the development of those resources for the people of Michigan (Michigan Legislature 2023).

Statutory Law

The Michigan Trailways Act (MTA) specifically authorizes the creation of a water trail program.[2] Several DNR citizen advisory groups have been active in developing the design and implementation of a water trail program. The Michigan Trails Advisory Council has also provided recommendations for a water trail program. As noted in an earlier chapter of this coursebook, the MTA also authorizes the creation of multi-jurisdictional management councils. This authorization better equips communities within a trail corridor to manage a regional water trail.

The Michigan State Waterways Commission is a seven-member advisory board that makes funding recommendations to the DNR and works to help develop harbors of refuge for vessels along the Great Lakes and connecting inland waterways (DNR n.d.c).[3] This citizen-based commission could play a very significant role in future funding and development of the state's water trail program. There have been discussions within the commission about creating a planning work group that could help develop additional funding and programmatic elements to the state's water trail program.

2. See Appendix A for the complete text of the Michigan Trailways Act (Part 721 of NREPA); MCL 324.72101 to 324.72118

3. See Appendix A for the complete text of Part 781 of NREPA (Michigan State Waterways Commission); MCL 324.78101 to 324.78119

Key Water Trail Organizations

Groups such as Paddle Antrim, the Huron River Watershed Council, the Michigan Sea Grant program, Michigan Office of the Great Lakes (OGL), and the Blueways of St. Clair were early proponents of a state water trail program. Smaller volunteer groups around the state have also developed their own water trail programs.

Nonprofit Organizations

Nonprofit organizations have played an integral role in helping stimulate and support local water trail efforts. These groups have helped provide fundraising, recruit volunteers, and lead restoration and educational programs along rivers, lakes, and streams. A prime example of a local nonprofit water trail organization is Paddle Antrim, whose mission it is to "protect water resources by using paddle sports to connect people to our waterways" (Paddle Antrim n.d.). This organization is leading the development, maintenance, and improvement of the Chain of Lakes Water Trail in northern Michigan.

Organized paddling events help to generate community support and understanding of the importance of water trails. By Bob Wilson, CC BY-NC 4.0.

State-Level Organizations

Two state-level organizations that have provided a strong foundation for Michigan's water trail program are the Michigan OGL and the Michigan Sea Grant. The Michigan OGL has been active in building a Great Lakes Coastal Water Trail program, assisted by the federal Coastal Zone Management program (EGLE n.d.). The Michigan Sea Grant, which is a cooperative program of the University of Michigan, Michigan State University, and National Oceanic and Atmospheric Administration has provided opportunities for education and research along Michigan's waterways (Michigan Sea Grant n.d.).

Economic Benefits of Water Trails

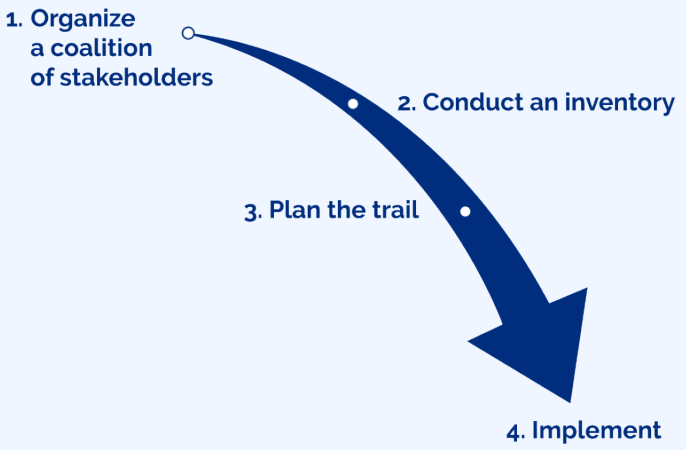
Water trails can attract and support tourism and new business opportunities as well as help sustain existing businesses and their employees; such activity generates significant economic benefits for both local and regional economies, as demonstrated by several studies:

- Water trail users tend to be well-educated and have incomes greater than $75,000 per year (Outdoor Industry Association 2015).
- Michigan's canoe and kayak industry alone contributes more than $140 million per year to the state's economy (Austin and Steinman 2015).
- A 2013 economic impact study found that the Huron River Water Trail generates more than $49.5 million annually from trail users (Washtenaw County Office of Community and Economic Development 2013).

Planning a Water Trail

Many of the key components of planning a water trail align with efforts to plan a land-based trail. These components include organizing a coalition of stakeholders, conducting an inventory of local water resources and access sites, and creating a master plan that helps to provide general guidance for water trail management and implementation (Exhibit 1).

Exhibit 1: Key Components of Planning a Water Trail



Key Planning Considerations

Trail planners and managers should take into account six key considerations when developing a water trail: funding, safety, accessibility, signage, amenities, and marketing.

Funding

A key planning consideration is the establishment and maintenance of consistent sources of funding. This is important because no current dedicated state-level funding source exists for water trails. Grants, gifts, corporate sponsorships, philanthropic efforts, and local funding such as fees and millages should all be considered when making a plan for funding a water trail.

Accessibility

Accessibility is an essential element to any good water trail program. Water trails should be easily accessible for users of a wide range of abilities and ages with universally accessible launch sites being an important piece of infrastructure.

Safety

A significant and ongoing effort should be made to ensure that water trail users have a safe experience on the water trail. An interactive safety campaign is a key component of any water trail plan. In many communities, water trail partners help to provide direct hands-on training for water trail users.

Safety seminars and discussing the importance of preparation in any water trail event is a key part of a water trail program. By Bob Wilson, CC BY-NC 4.0.

Signage

Signage along the trail should help provide support for water trail users. For any water trail to be successful, users must be familiar with where they are along the trail. Trail managers should provide key directional information for accessing launch and exit points along the water trail. These signage efforts should include signs that are properly designed and placed along the corridor to help people feel comfortable and ready to use the resource. The signage should be consistent throughout the course of the trail and should include both safety and cautionary signs as well as interpretive signage to help enrich the trail experience. When possible, safety signage should be co-developed with local first responders.

Amenities

Infrastructure amenities should also be found along the water trail with essential components including parking, restrooms, and universally accessible launch sites. In urban areas, additional amenities such as restaurants, hotels, liveries, and campgrounds are frequently offered.

Improving accessibility should always be a goal of a water trail manager. Kayak cradles have significantly expanded public access. By Bob Wilson, CC BY-NC 4.0.

Marketing

If you build it, will they come? They will if marketing is part of the planning process. Common marketing elements to consider include websites, mobile apps, brochures, maps, and media releases.

Group Discussion Topics

People have been using waterways for thousands of years. Please describe some of the more significant early uses of waterways and give an example of one water route in Michigan that was historically used for more than recreational purposes.

What are some key considerations that trail managers must keep in mind when planning and developing water trails that do not apply to land-based trails? Please describe a proposal that would result in a interconnected multi state system of water trails. How might land based trails be incorporated into such a system?

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7.

THE TRAIL BUILDING PROCESS IN MICHIGAN PART 1—PLANNING, DESIGN AND CONSTRUCTION

"Natural surface, nonmotorized trail construction techniques have evolved rapidly over the past decade, creating trails that are not only more sustainable in terms of environmental impact and required maintenance, but also providing for a higher quality experience for trail users."

—JASON ARIC JONES, Former President and Advocacy Director of the Michigan Mountain Biking Association, and Founder of the DTE Energy Foundation Trail.

Chapter Objectives and Goals

In this chapter, topics like rail trail conversions, how trails are surfaced, the need for multi-use trails, and trail maintenance will be discussed. It is a fundamental premise of trail building that the planning process must be thorough and reviewed regularly. Readers will understand the importance of utilizing a deliberate planning process that includes public engagement.

Key Questions to Consider as You Read this Chapter

1. What is likely the most important element of trail planning?
2. Whose input is essential in the early phases of planning? How do you

encourage residents to get involved?
3. What is the distinction between permissible and designated uses on a trail?
4. How does a route for a trail typically get selected? What factors should inform route selection?
5. What are some of the options for trail surfaces?
6. How does planning for maintenance factor into the trail planning process?
7. At what point should a trail planner consider the potential for connections to existing trails?
8. How can a trail planner integrate natural resources and local history into a trail, and why is that an important part of any trail plan?
9. Why is a rail trail conversion a popular method for creating a trail?
10. What are some of the resources available for the physical construction of a trail? How should volunteers be incorporated into trail construction?

Introduction

Over the course of the next three chapters, the core components of the trail building process—planning, design, construction, funding, post-construction monitoring and maintenance, and marketing and promotion—will all be discussed.

Planning Considerations

Trail Idea

The idea for a trail often starts with one individual or a central organization that provides the momentum for driving the early phases of trail development. Although the idea may sprout up within a particular segment of the community, it is important to find one or two individuals who are willing to be early advocates that can help bring the trail idea to life. These people spearhead the project and make an investment of time in acting as early stewards of the trail. Frequently, they already have some role in community leadership and are passionate and persuasive in their advocacy for the trail. “Priming the pump” in this fashion helps get early local community endorsement and, in many cases, can help identify other leaders and secure funding.

Community Engagement

After a trail idea is conceived, and a community leader has been engaged, the next step that logically follows is the creation of a local planning team that is comprised of both community members and the appropriate representatives of the local land planning and/or land managing agencies. Community engagement is critical at this stage in the planning process, as the more a community is engaged in the trail planning process, the more likely they will be to support and participate in the trail project. Early public listening and information sessions should be held to hear and share ideas and to inform residents of the planning process and address early potential concerns. This type of early engagement helps foster a sense of investment, ownership, and identity in the trail. Trail advocates and trail planners should take every opportunity to solicit and incorporate public ideas and sentiment and continue to make this an important part of the trail planning process moving forward. Again, this effort helps create a sense of collective support and coalition building.

Concept Development

The creation of a local planning team will help facilitate the conceptual development of the trail as the team begins to put details into a draft plan. Considerations such as the location of the trail route, inventories of existing features that need to be incorporated into the trail, potential uses of the trail, maintenance considerations, and some general cost estimates for a budget are all key components of a trail plan.

Any early trail plan must be consistent and compliant with local land use planning laws and policies and compliant with both state and federal laws. In Michigan, certain natural features such as wetlands, sand dunes, natural rivers, designated environmental areas, and other sensitive areas are protected under state law (EGLE n.d.). All relevant regulations must be acknowledged and adhered to within the plan.

Planning the concept for a trail requires hours of input from stakeholders and is a vital part of a successful trail, 2018. By Bob Wilson, CC BY-NC 4.0.

User Considerations

Part of the early public engagement will help identify the types of trail users for whom the trail is intended. Typical uses like biking, walking, hiking, mountain biking, horseback riding, off-road vehicle riding, winter uses (e.g. cross-country skiing and fat tire snow biking), and various other uses should all be evaluated. At this stage, preliminary decisions should be made about the **designated uses** of the trail (i.e., the types of recreational uses that the trail has been designed for) and **permissible uses** (i.e., the types of uses that a trail allows but has not been designed for). An example of this dual planning approach is that some trails may be designed for hiking and biking use but can also accommodate equestrian use. It is important to try to accommodate as many reasonable uses of the trail as the community has expressed a desire for in the trail.

With multi-use trails, it is important to take additional care in planning and designing the trail in such a way as to minimize user conflict. Trail planners must remember that although they may try to accommodate all uses of a trail, not all trail uses are necessarily compatible. There should also be some consideration for potential future uses of the trail as emerging uses such as expanding e-bike use and other forms of trail activities are arising that may prompt additional trail user needs. A well-designed trail that looks forward to potential uses can help minimize future costs in both development and maintenance of the trail.

User conflicts often stem from one user or group interfering with the experience of another user or group. To avoid such conflicts, it is important to try to spread out users and communicate expectations via signage and other materials. Proper communication and enforcement of trail rules can also help users become aware of the rules of the trail. Trail design is also important as poorly designed site lines and speed conditions can cause unnecessary conflicts. In some cases, multiple uses of a trail simply should not exist, and there may be a need to provide separate trails for different user groups.

Trail planners should anticipate multi-season uses of trails to open up new accessibility opportunities. By Bob Wilson, CC BY-NC 4.0.

Regionalization

There is a growing acknowledgment of the need to regionalize trails and trail systems so that within a particular geographic region, there are as many opportunities for trail uses as planners have identified through the planning process. This regional planning approach is important to avoid direct conflict on existing trails and provide a wide range of users the opportunity to

access trails within the region. The Michigan Trailways Act (MTA) specifically authorizes the creation of hybrid forms of trail management authorities by allowing for communities within and adjacent to a regional trail system to develop a management council that coordinates trail activities throughout the trail corridor. This is an important tool that can help bind communities together with a common plan in managing a regional trail. For that reason, consideration should be given to establishing a regional trail plan that works with other local units of government and the state in fashioning such a regional approach.

In many situations, there may be an opportunity to connect a new trail to a larger nearby trail system, and to join both land and water trails within the same region. To the extent possible, any route selected should offer access to a variety of scenic, geologic, historical, and cultural resources. Man-made features that make the trail unique such as covered bridges, historical artifacts, and other existing structures that may have been present at the time of the early use of the corridor also may help trail users connect with the trail and the surrounding area.

The Great Lake-to-Lake Trail is an excellent example of regionalizing and linking a variety of trails, 2019. © South Haven CVB. All rights reserved. Used with permission.

Location and Route Planning

Selecting the Route

When selecting possible routes, a common approach taken by planners is to examine area maps to select a tentative route. Topographic maps and aerial photographs are invaluable tools at this stage. There may be a series of preexisting informal or "social trails", which have been created through repeated foot traffic from people and animals. These social trails may form the basis for a more formal trail. Of note, social trails often follow fall lines and not proper grade topographic (topo) lines, so while they may give an idea of where trail users want to go, the exact route may need to be reworked to pass muster with regard to sustainable natural surface nonmotorized routing. Trail planners should take stock of existing corridors like abandoned rail corridors and utility corridors and consider how they may be incorporated into a new route. The opportunity to use public lands should also be considered, and any such consideration should be thoroughly reviewed by the appropriate land managers to determine if trail development is a possibility. At every stage in route planning, the presence of and potential impact on private property rights must be a priority consideration for trail planners.

It is important to avoid any natural or cultural features that may be negatively impacted by trail use such as wetlands, rare or endangered animal species habitats, and historic sites. Areas of invasive vegetation and rocky or steep slopes are also generally unsuitable for trail development.

Once a tentative route is selected, the route can be easily mapped using a handheld global positioning system (GPS). GPS units work with satellites to identify the latitude and longitude of a location. GPS data can be converted into geographic information system (GIS) files, which can be compared with other data and used to avoid areas like defined wetlands, rare and endangered plant and animal habitats, property boundaries, and other key natural and cultural features.

A diverse trail crew brings varied skills to trail building. © Kaitlyn Gill. All rights reserved. Used with permission.

Trail Features

Trail features are points of interest (either natural or man-made) located along a trail that add appeal and/or difficulty to the trail. Trails that are interesting and unique tend to become more popular than others without such features, so in any examination of potential routes, planners should try to find those routes that have "control points" (i.e., key points of interest where people want to go such as a scenic overlook or near a body of water). This examination is often completed during the trail inventory phase in which those key features can be clearly marked on the route map. Natural features such as ridgelines, cliffs, water features (e.g., stream crossings, waterfalls, ponds, etc.), historic and cultural features, large or interesting trees, and unique plants are all key assets in making a trail unique and appealing. Man-made features such as berms, bridges, jumps, stairs, drops, and switchbacks can also be incorporated into the trail.

Maintenance Considerations

One of the important factors that must be considered during the trail planning stage is the ability to maintain or sustain the trail in a cost-effective manner. For that reason, trail maintenance should be factored in at every stage of the trail building process. Ultimately, the development of maintenance guidelines and standards will be essential in assuring the safety and continued life of the trail. A trail plan should always include a full understanding of both the short-term and long-term maintenance costs and ensure there are sources of funding available to help meet those costs.

There are a variety of cost estimate categories that should be incorporated into building the trail. Some of the categories that influence cost include planning and design services, construction permit costs, trail surfacing, terrain and soil type of the trail, length of the trail, construction and installation of trail features, added amenities, signage, and the cost of labor.

Natural surface trails may require less costly maintenance than paved trails, but regular upkeep can't be ignored by trail managers, 2017. By Bob Wilson, CC BY-NC 4.0.

Fund Development

Fundraising will be explored in a subsequent chapter, but having a firm idea of where funding can be obtained is a critical component of the trail planning process and a foundational element that is often elusive. Though it may take time to fully evaluate the total cost of a trail, fundraising should begin as soon as the planning team has developed a good conceptual design. This is where having persuasive and passionate individuals who can become advocates for the trail can be an asset to the trail planning team. The formation of partnerships with nonprofit organizations and area businesses that are willing to help fund and take donations is an important effort to undertake. Michigan is fortunate to have state funding programs that can provide significant and stable streams of funding. There are also several federal grant programs that support trail building and maintenance. Other common sources of funding include local millages and gifts/donations. Business and corporate sponsorships can also provide additional funding support for trails, particularly as trails become more and more of a community need and a desirable component of community building.

Design Considerations

Tread and Clearance

When designing the physical construction of the trail, there are several important criteria to consider such as tread width (i.e., the actual walking surface of the trail), whether the trail will have a natural surface or an "improved surface" and the trail clearance (i.e., the vertical height of a trail corridor) (see Exhibit 1).

Exhibit 1. Example of recommended tread width and clearance guidelines for the Iron Belle Trail

Trail / Pathway Element	Recommended Dimensions
Natural surface single track trail	2' minimum 4-6' desirable
Natural surface double/two track trail	6' minimum 8-10' desirable
Improved surface single track trail (e.g. single use pedestrian trail)	5' minimum 6' desirable
Improved surface double/two track trail (e.g. multi-use linear trail)	10' minimum 12-14' desirable
Vertical clearance	8' minimum 10' minimum for equestrian use

Source: Ogemaw County EDC 2019

Trail Surfacing

There are a variety of trail surfaces that should be considered in the trail plan when selecting surface materials (see Exhibit 2). Decisions should be based on the expected uses of the trail, how comfortable and safe the surfaces will be for the users, and how well the surface material will stand up to the forces that affect surface life, such as compaction, displacement, and

erosion. If constructed properly, trail tread stability on natural surface trails can be maintained indefinitely even in areas that include steep slopes and rocky areas. Singletrack natural surface trails are unique in that they utilize a battery of techniques to ensure sustainability without the use of man-made surfacing or aggregate. These include not only consideration of trail grade, but also the creation of proper out-sloping, rolling grade dips/reversals, and drainage basins on the trail corridor. American with Disabilities Act (ADA) compliant trails are required to have a "firm and stable surface without obstructions" (e.g., pavement, boardwalk, and even hard-packed dirt).

Exhibit 2. Trail Surface Type and User Compatibility

Highly Compatible: ♦♦

Moderately Compatible: ♦

Not Compatible: **X**

	User Compatibility			
Trail Surface Type	**Equestrians**	**Hikers**	**Mountain Bikers**	**Motorized Trail Users (i.e., ORV riders & snowmobilers)**
Boardwalk	♦	♦♦	♦♦	**X**
Gravel/ Crushed Stone	♦	♦♦	♦	♦♦
Natural Surface	♦♦	♦♦	♦♦	♦♦
Pavement	**X**	♦	♦♦	♦
Wood Chips/ Mulch	♦	♦♦	♦	**X**

Source: Authors

Taking advantage of natural terrain, and working with natural materials is a fundamental part of building natural surface trails, 2024. By Kaitlyn Gill, CC BY-NC 4.0.

Trail Grade

Trail grade is the steepness, or slope, of the trail. Generally, any grade over ten percent is considered steep. The **maximum grade** is the steepest section of the trail that is more than ten feet in length, and the **average grade** is the steepness of a trail over its entire length. **Cross slope** is the side-to-side slope of a trail. Trail grade is an important design consideration as it influences the relative difficulty and erosion potential of a trail. ADA compliant trails should not exceed five percent slopes and have a cross slope of greater than two percent.

Rail Trail Conversions

Rail trail conversions are among the most popular types of trail both in Michigan and in a number of other states. One of the reasons Michigan is a trail-rich state is that the presence of abandoned rail corridors have allowed for numerous conversions into recreational trails. A rail trail is a former railroad corridor that has been converted into a multi-use path, typically for walking and cycling, and sometimes for horseback riding, snowmobiling, and other motorized vehicle uses. Rail trails are almost always linear, long, and flat. Once the tracks and ties have been removed from the old rail corridor there is usually about fifteen to twenty feet of ballast (i.e., the rocky substructure that supports trains) remaining on the rail corridor from which to provide a firm foundation to construct the trail.

ADA Accessibility

Trail planners should ensure that the trail construction takes advantage of as many opportunities as are available so that the trail is ADA accessible. This is often a requirement to obtain different types of state and federal funding. Designing an ADA compliant trail must take into consideration the unique needs of individuals with disabilities when planning and designing the trail. It should be a given that all trail planning efforts should try to provide as much equitable access to trails as possible. Trails must conform with the legal accessibility guidelines and standards to be considered accessible. Accessibility is also a precondition to obtaining a Pure Michigan trail designation: "...Where feasible, the trail offers adequate support facilities for the public, including parking, sanitary facilities, and emergency telephones, that are accessible to people with disabilities and are at reasonable frequency along the trail" (MCL 324.72103[h]).

While there is currently no requirement for natural surface nonmotorized trails to meet ADA standards per ADA guidelines, many trail builders and managers are voluntarily heading in this direction. For example, more and more mountain bike trail builders are finding ways to make natural surface nonmotorized trails which can provide for both traditional features and structuring of a natural surface nonmotorized singletrack while also providing a level

of accessibility (American Trails 2022; The Unpavement n.d.; Vermont Mountain Bike Association n.d.).

Linking mass transit and trail opportunities helps to expand the potential for commuting and reducing carbon footprint. By John Calvert. All rights reserved. Used with permission.

Mass Transit Opportunities

One of the more significant features of the Great Lake-to-Lake Trail that runs between the cities of South Haven and Port Huron is the accessibility to mass transit opportunities through the use of the Amtrak railroad system. In urban areas, trails can provide important links in a mass transit network. Whenever possible, trails should be integrated with mass transit opportunities to provide a seamless transportation network throughout the area. Recent amendments to the MTA include language to encourage development of a trail that is coordinated with mass transit opportunities.

Amenities

Designing a trail also includes ensuring that various amenities are available for trail users, as amenities can make the trail system more attractive and enjoyable. Those amenities should be

included at appropriate locations throughout the trail. Trailhead and staging areas generally provide great opportunities for amenities like parking facilities, restrooms, and drinking water infrastructure. Other examples of amenities include benches, picnic tables, waste and recycling receptacles, dog waste stations, bike racks, bike repair stations, and water pumps.

Signage

There are three basic types of signage that should be considered as part of the planning process. Regulatory signs inform trail users of selected laws or regulations for trail use, warning signs are used to caution hazards along the trail and, information and wayfinding signs provide trail users with information that is not necessarily required by law but enhances a user's experience. Signage provides important opportunities for users to be made aware of trail conditions and to feel comfortable and safe on a trail. It is important to remember that a user will often not engage with a trail if they feel intimidated or lost.[1]

Construction Considerations

Constructing the trail is a significant undertaking, and for that reason many trail building construction projects are delegated by contract to professional trail construction firms that are experienced in the field of trail building. Ensuring proper construction will help enhance sustainability and reduce maintenance costs in the future along with generating additional support from local citizens who see a trail that is well-built and well-maintained. In turn, if the community makes a sustained commitment to long term safety and accessibility of the trail, it can help to provide additional access to state and federal funds.

Evaluation and Monitoring

Once a trail is constructed, it is important to conduct regular evaluation and monitoring activities to ensure the trail is meeting the agreed-upon standards laid out in the trail plan and provide opportunities to make evaluations for whether changes need to be made. There are a host of evaluation and monitoring considerations like monitoring trail use traffic, conducting routine maintenance inspections, assessing environmental impacts, checking on user conflicts, and checking for safety and security issues on the trail.

1. Signage will be more fully explored in another chapter.

Labor

As mentioned earlier, many trail managers seek out professional trail building organizations and contractors. They provide specialized expertise and knowledge in trail construction methods. However, these services can be expensive. The opposite end of the spectrum in terms of labor sources are volunteers that can provide free labor, but generally do not have the kind of trail building expertise that is necessary for many types of trail construction. Many trail projects utilize a hybrid approach, combining both professional trail-building firms and volunteer labor.

Trail managers need to ensure that all workers both volunteers and professionals have adequate training, 2024. By Kaitlyn Gill, CC BY-NC 4.0.

Leveraging Volunteer Groups

Managers of larger and longer natural surface trails often rely upon volunteer groups to assist in some level of both trail construction and maintenance activities. Many trail organizations have established programs that make regular use of volunteers for both building and maintenance projects (e.g., the North Country Trail Association and the Michigan Trail Riders Association). Michigan's statutory Adopt-a-Trail program provides incentives for volunteers to get involved, and there are many benefits that are provided to volunteers from trail organizations such as recognition programs and activities that celebrate volunteer labor.

Successful volunteer labor efforts help bring a source of pride to the community in the efforts that they put into trail building and maintenance. In addition, trained and experienced volunteers are generally knowledgeable in specific conditions of a trail and can make quick and effective repairs when necessary. They can also help provide additional fundraising capacity and positive publicity for the trail and efforts to connect with the community.

Tools

There are a number of physical tools that are involved in both trail building and maintenance activities. Significant caution should be exercised when allowing volunteers to work with certain trail building tools. There are three main categories of tools used in trail building and trail maintenance:

- Hand tools (e.g., lopping shears, handsaws, Pulaskis, shovels, etc.)
- Power tools (e.g., chainsaws, drills, etc.)
- Mechanical equipment (e.g., tractors, skid steers, excavators, etc.)

Only people who are adequately trained and licensed should be allowed to use certain tools and equipment. Trail managers must always remember to keep safety protocols in place when utilizing tools on the trail.

Knowledgeable use of trail clearing tools is an important part of effective trail building, 2024. By Kaitlyn Gill, CC BY-NC 4.0.

Group Discussion Topics

When planning and designing trails, trail builders must consider potential user conflicts and work to minimize such conflicts. How can trails be designed to reduce the potential for user conflicts? What important design considerations must be made to ensure a safe and enjoyable experience for all? How would you resolve continued conflicts over trails and explain how e-bikes may affect trail uses?

Are all trail user types compatible with one another on the same trail? Why or why not? Are there certain user groups that are more compatible with each other than others? What are they and why? Explain your reasoning.

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8.

THE TRAIL BUILDING PROCESS IN MICHIGAN PART 2—FUNDING OPTIONS AND LONG-TERM MAINTENANCE

"Michigan's funding opportunities for trails [primarily] come from user fees, state gas tax, and grant opportunities. At both the state and federal levels, the funding for trails provides a solid foundation for the maintenance and improvement of trails, however, these funding opportunities are not sufficient or sustainable over time. The state is in process of completing a comprehensive review of trails and the funding needed to maintain the trails in perpetuity."

—TIM NOVAK, State Trails Coordinator, Michigan Department of Natural Resources (DNR)

Chapter Objectives and Goals

Michigan has emerged as the nation's leading trail state due in part to the availability of state administered funding options. Readers of this chapter will come to appreciate these significant funding opportunities, as well as the important role that funding plays in the construction, management, and long-term maintenance of trails.

Key Questions to Consider as You Read this Chapter

1. At what levels of government are funding programs available for trail building?
2. Describe some of the sources of trail funding available at the federal level. How do those programs include work with state agencies?
3. What are some of the funding sources for those federal programs and how do they relate to sustainability?
4. What is the distinction between a user fee and a local tax to support trails?
5. What obligations does a local unit of government have to raise local funds to seek federal funding?
6. What is a grant, and how is it different from a gift?
7. Identify at least one state-level philanthropic organization that supports trails in Michigan.
8. Why is maintenance such an important component of a comprehensive trail plan?
9. What are some challenges that trail managers face with the long-term sustainability of a trail?
10. Describe the options available for a trail manager to provide for physical maintenance of trails.

Introduction

Funding is a foundational element in the trail building process, and one component that is often elusive for trail managers. Part of the dilemma with funding is that many trail managers are not aware of the significant number of funding opportunities that exist in both the public and the private sectors in Michigan. Fundraising should begin early in the life of a trail and continue throughout the long-term management of the trail. Proper planning and funding to support the management and maintenance of a trail is critical to its long-term success.

Trail Funding

Many funding options exist for trail managers in Michigan. State and federal grants, local millages, philanthropic organizations, gifts and private donations, business and corporate

partnerships, and novel funding sources like donation canisters provide a range of opportunities for trail funding.

Trail funding programs should always take steps to recognize donors and sponsors. By Bob Wilson, CC BY-NC 4.0.

Grants

One of the most popular sources of funding for trail managers in Michigan is grants. A grant is a conditional conveyance of dollars from either a government or philanthropic organization. The first step in securing a grant comes in the form of a multi-tiered application that is submitted to the funding organization (i.e., "the grantor"). Grants typically involve conditions that must be met by the recipient (i.e., "the grantee") and if those conditions are not met, there's a potential for the grantor to modify the grant or even revoke the grant entirely. For these reasons, grant writing and grant compliance are important skills that trail managers should possess. The remainder of this section provides an overview of some of the most prominent grant programs that have funded trails in Michigan.

Federal Grants

One of the main sources of grant funding for trails is the federal government. These funds are typically derived from taxes and fees collected at the federal level. Applicants are responsible for meeting legal requirements and documenting the process for the use of the funds. Federal funds for projects must be compliant with relevant federal law. For example, many federal grant programs require projects to be compliant with the National Environmental Policy Act (NEPA), which requires federal agencies to examine the environmental impact of certain federally funded projects.

Recreational Trails Program

The Recreational Trails Program (RTP) is a principal source of federal grants for trail development and management. These funds come from the federal Highway Trust Fund, which collects approximately $270 million per year in non-highway recreational fuel excise taxes, paid by off-highway vehicle (OHV) users (e.g., snowmobiles and all-terrain vehicles). The RTP provides funding to states to "develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized trail uses" (RTP Database n.d.b).

Of the total RTP funds available, 40 percent is set aside for diverse recreational trail use, 30 percent is set aside for motorized trails, and the remaining 30 percent is dedicated to nonmotorized trails. RTP funds are allocated directly to the states and are generally administered through a specific state regulatory agency (in Michigan's case, the DNR) (RTP Database n.d.a). In fiscal year 2020, Michigan received $2.825 million in federal RTP funding (FHWA 2021). Michigan trails such as the Musketawa Trail, the Ocqueoc Falls Pathway, and the Paint Creek Trail have all received funding from the RTP.

Land and Water Conservation Fund

The federal Land and Water Conservation Fund (LWCF) is another source of federal funding for trails. The LWCF invests earnings from offshore oil and gas leasing to "help strengthen communities, preserve our history, and protect our national endowment of lands" (National Park Service 2022). The United States Congress created this funding program based on the rationale that the government is using the revenues from the depletion of one natural resource (oil and gas) to conserve a different natural resource. The LWCF provides matching grants to state and local governments for the development of public outdoor recreation areas and facilities. For a state to receive funding from the LWCF it must have in place a current Statewide Comprehensive Outdoor Recreation Plan (SCORP).

The LWCF has supported nearly one thousand trail projects, and thousands of other projects like community parks and recreational fields in all fifty states. Like the RTP, this fund is administered through a state agency (in Michigan, the DNR). Examples of trail projects that

have received LWCF dollars in Michigan include trails in the Sleeping Bear Dunes National Lakeshore, the Brighton State Recreation Area, and Lake Lansing Parks.

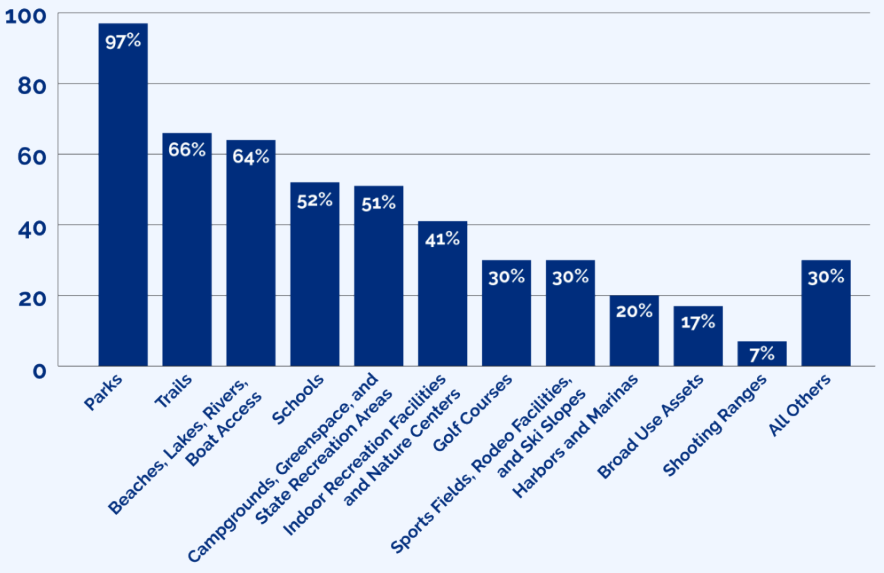
Transportation Alternatives Program

The federal Transportation Alternatives Program (TAP) is a competitive grant program that uses federal transportation funds designated by Congress for "specific activities that enhance intermodal transportation system and provide safe alternative transportation options" (MDOT n.d.b). Eligible applicants include county road commissions, cities, villages, regional transportation/transit agencies, state and federal natural resource agencies, public land agencies, and tribal governments. The program is focused on supporting projects that provide "transportation alternatives" like pedestrian and bicycle facilities and recreational trail projects. The Safe Routes to School (SRTS) program, which helps promote safe opportunities for travel to and from schools, is an important trail-related program that is funded by TAP dollars. The Michigan TAP program is administered by the MDOT and requires documentation of public input, a minimum match of 20 percent of the construction cost, and compliance with federal trail design standards. In 2023, the TAP funded 41.4 miles (total funding of $24.5 million) of trail development in Michigan, including portions of the Pere Marquette Rail Trail and the Detroit Riverwalk (MDOT n.d.a).

State Grants

State government grants for trail work in Michigan are available through several sources such as the Michigan Natural Resources Trust Fund (MNRTF) Grant Program, the Recreation Passport Grant Program, and various user fee-based grant programs available for motorized trail uses. These grants are generally available to local units of government that have a DNR-approved Five-Year Recreation Plan. Having this master plan in place helps establish consistency across recreation management agencies and demonstrates that the grant itself will fit into broader community plans. This requirement illustrates the important role that a coordinated land use plan plays in trail development. According to data compiled by the DNR, sixty-six percent of Five-Year Master Plans list trails as an outdoor recreation asset (Exhibit 1).

Exhibit 1. Percentage of Five-Year Master Plans that Include Lists of Outdoor Recreation Assets



Source: Michigan Department of Natural Resources compiled data from 2016–2017.

Michigan Natural Resources Trust Fund (MNRTF)

One of most significant sources of state funding for trails is the Michigan Natural Resources Trust Fund (MNRTF). This fund derives its income from royalties that the state collects from the sale and leasing of state-owned mineral rights. The principle behind the creation of this fund is similar to that of the federal LWCF in that the state is using revenue from a non-renewable natural resource to support another natural resource. The DNR and the MNRFT Board, a state-level administrative board consisting of citizens from around the state, reviews grant applications for the use of the fund and makes recommendations to the Michigan legislature for final review and approval of the use of the fund.

The MNRTF is established in the Michigan Constitution and further detailed in Michigan statute. By law, no less than 25 percent of the MNRTF revenues available for appropriation each year can be used for development of public recreation facilities and no less than 25 percent can be used for the acquisition of public land. Applicants for this program are required to provide 25% matching funds and applications are scored higher based on the percentage of the match. Historically, there has been approximately $15-$20 million available for MNRTF grants each year. Some trail projects in Michigan that have been funded by the MNRTF include the Betsie Valley Trail, the Lansing River Trail, and significant segments of the Iron Belle Trail (DNR n.d.a).

The Natural Resources Trust Fund has a long history of funding trail development. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Recreation Passport Grant Program (RPGP)

Also available at the state level is the Recreation Passport Grant Program (RPGP). The Recreation Passport program is funded by revenue collected from a voluntary fee paid as part of vehicle registration. As of June 2024, the annual fee to purchase a recreation passport was $14 for residents and $40 for non-residents (DNR n.d.c). Recreation Passport grants are made available to hundreds of state-managed parks and recreation areas. In addition to funding specific state park projects, the RPGP is also available to local units of government for the development of public recreation facilities, which includes both development of new facilities and renovation of existing facilities. Applicants for this program are required to provide 25% matching funds and applications are scored higher based on the percentage of the match. $1.98 million was available and awarded to local governments in fiscal year 2023 (DNR n.d.d).

User Fees

In addition to grant programs, the state also has several user fee-based programs that provide funding for specific uses on trails. Both Michigan's snowmobile and off-road vehicle (ORV) programs are largely supported by registration fees paid by individual users. The ORV Trail Improvement Fund provides funding for the maintenance and development of ORV trails

and facilities and the Snowmobile Trail Improvement Fund provides funding to maintain snowmobile trails as part of the designated statewide trail system (DNR n.d.b and DNR n.d.e).

Michigan currently does not have a dedicated fee program to support nonmotorized trails. Unlike the motorized trail programs that are funded by registration and permit fees, there is no similar requirement for non-motorized trail use. Several attempts have been made at drafting a voluntary user fee program, but difficulties remain in terms of registering users and enforcing the use of a trail fee and registration system. This absence of dedicated funding for nonmotorized trails should be addressed in order to provide greater funding equity across Michigan's trail system.

Millages

As trails become more popular at the local level, trail managers should consider the opportunity for local units of government to collect a dedicated portion of local property taxes (millages) for specific trail uses within that jurisdiction. Any local millage must be voted on and approved by the residents within that community. An example of a local trail millage is the Ingham County Trails and Parks Millage, which has been successful in supporting an expanded trail system across the county (Ingham County Parks n.d.). Because trails are frequently so important and popular at the local level, local millages are a great way to support trails within a community.

Philanthropic Organizations

There are numerous foundations and philanthropic organizations that have generously supported trail development and maintenance in Michigan. These organizations generally utilize donated assets and income to provide specific funding programs to qualifying projects. Some of the key philanthropic organizations that have a presence in Michigan include the Ralph C. Wilson, Jr. Foundation, the Meijer Foundation, the Americana Foundation, and the Michigan Trails and Greenways Alliance. One of the particularly active foundations in southeast Michigan is the Ralph C. Wilson, Jr. Foundation, which has a unique trust that requires $1.4 billion to be spent down by the year 2035 with a specific funding priority on creating parks, trails, and green design projects (Ralph C. Wilson, Jr. Foundation n.d.).

Gifts and Private Donations

Michigan has several significant individual trail supporters that have funded trail projects over the years. Because people often feel a direct connection with supporting a trail that encourages community engagement and investment, individual gifts and donations are an important part of a trail funding plan. An example of this funding source is the significant financial and

personal support made by former Pinckney resident, Mike Levine, for building the Great Lake-to-Lake Trail that runs between South Haven and Port Huron. Mr. Levine personally committed millions of dollars to trail development in Michigan. Finding and working with these local donors can provide considerable financial support for trails.

By Bob Wilson, CC BY-NC 4.0.

Business and Corporate Partnerships

Other financial support can come from business and corporate partnerships. Building partnerships is essential for sustainability of any trail system, and many business partners will support trails as an evident investment in both people and the community. Businesses can also provide in-kind services that a trail manager may need to help construct and maintain a trail. Utility companies such as Consumers Energy and DTE Energy have allowed the use of utility corridors to facilitate the development or expansion of trails in Michigan. Utility companies are an important resource because they can allow for trails to be built in areas where there is an existing cleared corridor.

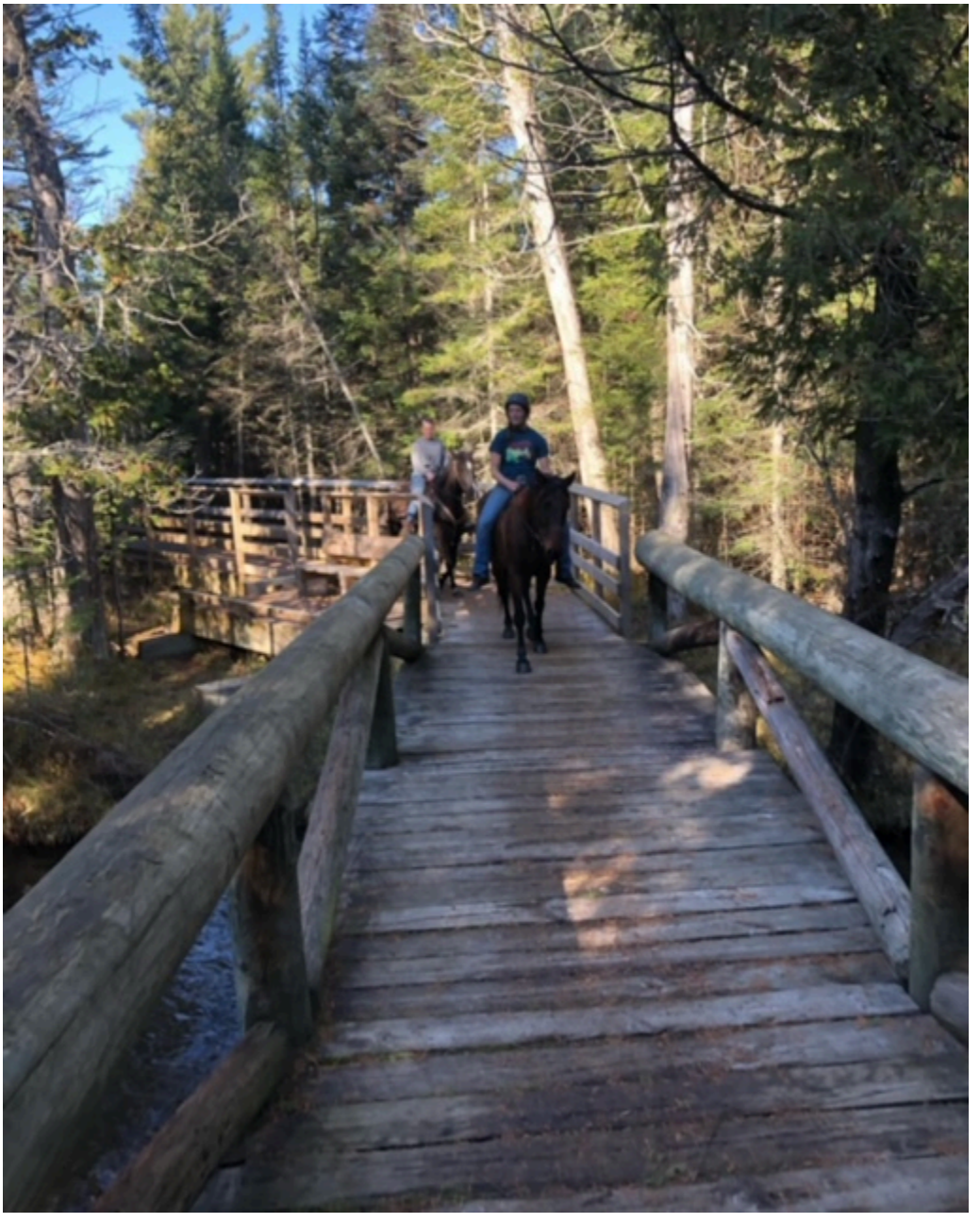
Novel Funding Sources

Other less common sources of funding include user fees (e.g., bridle tag or a bicycle fee), donation canisters placed at trailhead collection sites, local bond issues, and trail events that can generate registration fees directly for the use on a trail. Finally, there are a number of web-based crowdfunding programs that should also be considered as part of a comprehensive fundraising plan.

Trail Maintenance

Trail planners often underestimate the importance of incorporating both short-term and long-term maintenance efforts into a trail plan, concluding that a well-built trail can minimize maintenance efforts. However, it would be a mistake to not fully consider experiences of other trail planners, and the likelihood that increased uses of trails and changing weather patterns, along with other variables, can have a dramatic impact on the ability to sustain a trail. For these reasons, a robust trail maintenance plan should be a key component of any trail management strategy.

The proper maintenance of a trail helps provide for a pleasant and safe recreational experience for trail users and helps reduce both repair costs and liability exposure for trail managers and their organizations. With changing climate and other environmental conditions, there are a host of potential threats to trail infrastructure like flood control, new, more aggressive forms of trail use, and even potential exposure to historical contaminants along the trail. When looking forward at the long-term future of a trail, trail planners must anticipate the needs to maintain the integrity of the trail given changing and potentially unknown conditions.



Trail maintenance plans must include as many permitted uses as are possible for a trail. By Anna Lee, CC BY-NC 4.0.

Addressing trail maintenance needs is made a bit more complex by the fact that there are generally not as many funding sources available for maintenance as there are for the actual construction of a trail. Michigan's trail funding programs cannot generally be used to cover short-term maintenance costs. Longer-term and more substantial maintenance efforts such as replacing a boardwalk or a bridge are more likely to be funded by state grant programs. Given these concerns with funding needs, it is not surprising to note that many state recreation

infrastructure components lack direct support for maintenance work. Many state park recreational facilities are in need of upgrade and replacement due in large part to lack of funding for maintenance.

Maintenance plans should cover both short-term and long-term maintenance needs. Funds must be in place to react quickly to repairs that trail users and trail managers may have identified on the trail. For example, a fallen tree crossing a trail route that prevents passage or poses other safety issues should be removed promptly and any damage repaired. Longer-term maintenance efforts should be proactive rather than reactive, so that regular upgrades to trail facilities, including the trail surface, signage, and amenities, are accomplished on a planned time frame.

A regular or routine trail maintenance schedule should be in place to clear vegetation within the trail corridor and maintain existing signs and other amenities. In addition, routine maintenance should also address surface related issues, such as filling or sealing cracks, and addressing grading and patching issues. Maintenance of bridges, culverts, and drainage features and the infrastructure located at trailheads should also be part of a regular maintenance effort.

There are several options available to implement a trail maintenance plan and they include a relying on trail management staff, trail maintenance organizations that specialize in trail maintenance, and partnering with volunteer groups and organizations such as trail friend groups. Public-private partnerships are often formed with a memorandum of understanding (MOU) serving as a foundation for shared responsibility for maintenance efforts.

Regardless of what approach is taken, it is vital to not underestimate the importance of having a thorough maintenance plan, including adequate funding to support those maintenance efforts. Ideally, at the inception of a trail, the plan should include a thorough review and recommendations for maintenance. A trail plan without a maintenance component faces a difficult path ahead.

Regular inspections and follow up reports of trail maintenance issues needs to be part of a comprehensive maintenance plan. By Bob Wilson, CC BY-NC 4.0.

Group Discussion Topics

The coronavirus pandemic had some significant economic impacts on trail funding and maintenance projects (e.g., delay of construction projects, lack of maintenance, etc.). What lessons can we learn from this experience about how future threats to public health and natural resources might impact trail building in Michigan?
What are the key differences between short-term and long-term trail maintenance activities? Please give an example of each. Why is it important for trail planners and managers to consider both short-term and long-term maintenance when estimating funding needs for a trail? As we look to the future for trail building, many believe that we should be focusing more on the development and maintenance of natural surface trails. What advantages and disadvantages do you see with natural surface trails?

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9.

THE TRAIL BUILDING PROCESS IN MICHIGAN PART 3—MARKETING, PROMOTION AND BRANDING

"Michigan's trails truly offer something for everyone. And with more than 13,400 miles of state-designated trails—pathways for hiking, biking, paddling, horseback riding, ORV riding, snowmobiling and more—Michigan is known as "The Trails State" for good reason. Telling the stories of these outdoor opportunities throughout the state, in urban areas as well as in more rural and remote spots in Michigan, is an important role of the DNR and our commitment to the conservation, protection, management, use, and enjoyment of our natural and cultural resources for current and future generations."

—JASON FLEMING, Chief, Resource Protection and Promotion Section, Parks and Recreation Division, Michigan Department of Natural Resources (DNR)

Chapter Objectives and Goals

Many exciting opportunities and strategies exist to market and promote Michigan trails, such as Pure Michigan branding, partnerships with media companies, event planning and management, and signage. Readers of this chapter will explore these strategies and others and understand the evolution of destination trails and regional trail networks that highlight Michigan's unique communities, people, and places.

Key Questions to Consider as You Read this Chapter

1. What is the difference between marketing and promotion?
2. Why is it critical that a trail planner or manager sets objectives for a marketing plan?
3. What are some of the audiences that a marketing plan could attempt to reach?
4. What is one of the most essential elements of a messaging strategy?
5. Describe some of the key methods of generating a marketing message.
6. What is one of the most significant branding programs in the state and how does it incorporate trails?
7. How does an effective signage program include both safety and marketing components?
8. What are the three basic types of signage? Are there any federal or state regulations that dictate signage?
9. What are some of the social media opportunities available for marketing a trail?
10. Describe the importance of including trails in a community's marketing strategy.

Introduction

The trail building process involves much more than the planning and construction of a trail. Trail marketing, promotion, and signage play important roles in informing users and community members of the recreational opportunities provided by trails, and ensuring trail users feel safe and welcome.

Marketing

A marketing and promotion campaign is essential to build awareness of a trail and promote its value. **Trail marketing** is the process of identifying the nature and needs of a trail's varied target audiences, and developing a suite of promotion strategies that communicate the trail's value to each audience. **Trail promotion** is part of the marketing process and generally refers

to any type of marketing communication used to inform or persuade target audiences of the value and benefits of a trail. Key components of a trail marketing plan include establishing:

- Objectives
- Target audiences
- Various forms of messaging
- Brand identity
- Partnerships
- Promotional strategies

Short-term vs. Long-term Marketing

Short-term marketing is meant to focus on producing an immediate and temporary boost in marketing results (e.g., advertisements, brochures, social media posts, etc.), while long-term marketing activities help establish a greater brand identity and are meant to produce positive results for many years (e.g., establishment of partnerships, branding, signage, etc.). An effective trail marketing and promotion campaign should contain a mixture of both long-term and short-term marketing activities—the short-term marketing should complement and serve to produce long-term marketing results.

Marketing Objectives

As with any trail plan, a marketing plan should establish clear objectives that become the guide for the development and implementation of the necessary strategies. Trail planners and managers should work with community members and other stakeholders to identify and develop objectives that are mutually beneficial. Marketing objectives should be consistent within the trail plan. Examples of marketing objectives might include increasing trail usage, generating more community involvement in promoting and maintaining trails, raising additional funds and resources, communicating the long-term health benefits of trail activities, advancing diversity, equity, and inclusion (DEI) goals, reducing impacts on natural resources, and aiming for some type of state or national recognition of the trail. Obtaining trail designations through Michigan's Pure Michigan Trail program along with the Trail Town and Water Trail designations are examples of well-known and highly visible marketing objectives for trail planners and managers in Michigan.

Target Audiences

When identifying target audiences in a marketing campaign, trail planners need to identify who they are trying to reach (e.g., casual trail users, avid cyclists, commuters, history buffs,

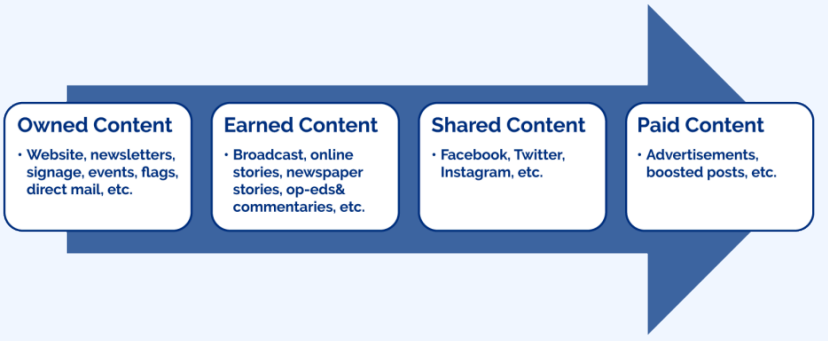
nature enthusiasts, etc.). There should also be consideration for the non-target audience participation, especially when the messaging channels can be shared beyond focused trail users. Consideration for those should also be included in the trail plan, even when focused on the designated and permissible uses of the trail.

Trail events help to promote a spirit of community.

Messaging

Developing a clear and consistent message that is to be conveyed to the target audience should include important features of the trail such as the location, user groups, value of opportunity added, and connectivity to the community. As with any messaging, outreach should be clear and easily conveyed based on the target audience. The use of logos, tag lines, and visuals need to be consistent across messaging channels. Trail managers should think of the trail as an asset or a product that is being promoted and marketed and aim to effectively and consistently convey the unique qualities of the trail.

Exhibit 1. Messaging Channels



Source: Adapted from Boone and Kurtz 2013

As demonstrated in Exhibit 1, there are a variety of channels that can be used to convey messaging. Messages can be conveyed through owned content, such as a website or newsletter, or earned content where the trail provides newsworthy items. Other channels for messaging include shared content where there is purposely shared information about the trail on social media, and paid content, such as paid advertisements where compensation is paid for messaging.

Partnerships

Creating marketing partnerships is an important step to take, because by sharing resources, organizations can mutually benefit from one another and help implement a more comprehensive and robust marketing plan. When working on developing those partnerships, ensuring all partners have a clear understanding of the expectations from the trail plan is critical. This allows all groups to have a shared strategy, even if the benefits of the trail may vary depending on the partners. As a recent example, during the promotion of opening of the Great Lake-to-Lake Trail, there was a significant media component of the marketing plan that included statewide radio and print advertisements that were shared by various trail organizations. Each of the media partners and trail organizations benefited from the promotion of the trail and helped contribute to a broad approach to informing the public of the opening of the trail.

Branding

Branding is an important part of any trail marketing plan and is often associated with a specific logo or catch phrase (e.g., the Nike "swoosh"). Branding helps provide a unified and consistent message across locations, increase recognition for both individual trails and trail networks, and sets standards for trail expectations and maintenance. Some examples of trail branding in Michigan include logos associated with Traverse Area Recreational and Transportation (TART) trails, the Iron Belle Trail, the Great Lake-to-Lake Trail, and many other local and regional trails. State and national designations can help establish additional recognition and credibility in that they assure users of consistent signage, quality trail management, and other important trail attributes along with allowing trail managers access to state and national marketing and promotion. It should be the goal of every trail manager to seek some type of highly visible and credible trail branding or recognition of quality.

Distinctive logos can provide an important marketing and promotional element for any trail. By Bob Wilson, CC BY-NC 4.0.

Pure Michigan Branding

In one of the most important recent changes to the Michigan Trailways act, the legislature took advantage of the significant popularity of the Pure Michigan brand by adding an opportunity to promote highly successful and high-quality trails in Michigan. To qualify for the Pure Michigan brand, a trail must (DNR n.d.a):

- Provide a quality trail experience
- Provide clear information for users
- Demonstrate broad community support, and
- Have a sustainable business, maintenance and marketing plan

As of July 2024, there were twelve Pure Michigan designated trails (DNR n.d.b):

- Canada Lakes Pathway
- Cass River Water Trail
- Haywire Grade Trail
- Highbanks Trail
- Iron Ore Heritage Trail
- Kal-Haven Trail
- Leelanau Trail
- Paint Creek Trail
- Polly Ann Trail
- Sleeping Bear Heritage Trail
- Trail 45 Charcoal Grade Trail
- William Field Memorial Hart-Montague Trail State Park

The City of South Haven is one of the first designated Pure Michigan Trail towns. © South Haven CVB. All rights reserved. Used with permission.

Michigan Heritage Trail Program

In addition to Pure Michigan branding, the state also provides the opportunity for designation as a Michigan Heritage Trail (Michigan History Center n.d.). The Michigan Heritage Trail program was created by the legislature to promote and support the important role that trails

play in the legacy and history of communities around the state. Heritage trails connect people with the natural and cultural heritage of the landscape through which they are passing and create an added dimension to the trail experience. Some examples of Heritage trails in Michigan include the Iron Ore Heritage Trail in the Upper Peninsula and the Kal-Haven Trail in southern Michigan.

National Branding

National branding is also an important designation opportunity for trail managers and trail planners. One of the more commonly recognized brands is the designation of a National Scenic Trail (National Park Service 2021). An example of a trail in Michigan that has received this designation is the North Country National Scenic Trail, which also received National Park designation in 2023 (Lemon 2023).

Promotion Strategies

Various promotion strategies are available to a trail manager, including, but not limited to, the development of a website, maps, social media, print advertisements and brochures, and videos.

Websites

Many believe a website to be a trail's most important promotional tool, because of its ability to convey real time information about the trail. Websites generally include trail maps, pictures and information about the unique characteristics of the trail, information that shows how volunteers can get involved with the trail, acknowledgment of trail partners, and the opportunity for trail users to provide input and feedback about their experiences on the trail.

Maps

Maps are a crucial promotional tool that can provide information for trip planning and navigation while on the trail. Maps are typically either printed or available in a web-based digital format. Maps should always include trailhead and staging areas, designated and permissible uses, road names leading to trail access points, water sources, and locations of trail amenities such as restrooms and parking facilities.

Easily-understood trail maps can help to convey a sense of place and safety. By Bob Wilson, CC BY-NC 4.0.

Social Media

The marketing dynamics of social media are generally well understood, and most trail advocates agree that it is among the more effective ways to engage trail users, as well as to inform and inspire new users about the trail. Social media should be utilized to regularly post updates and information about the trail and create an environment that encourages followers to share important real time trail information.

Print Advertisements and Brochures

Print advertisements and brochures are a more traditional method of conveying information about a trail. They should be professionally designed and produced and should clearly convey messages identified in the trail marketing plan. They are typically distributed at trailhead kiosks, at events, and at local businesses.

Video Production

Recently, more trail managers have begun to include the use of video clips that provide audio and video messages to current and prospective trail users. Videos may be short- or long-reel productions, and there are advantages to both depending on the target audience. Youtube.com is an example of a popular online platform used to share videos. A highly successful video message promoting the Great Lake-to-Lake Trail was produced through Michigan State University (MSU) and coordinated by MSU Department of Community Sustainability professor Dr. Chuck Nelson. This professional video was produced to help demonstrate the benefits of this regional destination trail to communities along the trail and its ability to connect people throughout the trail. A well-done professional video can attract sponsors and partners, who may be able to share the production costs of the video.

"Great Lake to Lake Rail Trails" with Closed Captions

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://openbooks.lib.msu.edu/michigantrails/?p=326

Transcript with Timestamps

Male Interviewee A: Well, cycling in Michigan for me is absolutely wonderful. The rail trails, I think, are the best part. Mainly because most of these trails that we have are corridors that have been left alone for many years are tree lined. And so you do have the ability to ride in shade. You do have the ability to ride out of the wind most of the time, and they're straight, and they're flat.

Female Interviewee A: Get out enjoy them. Invest in a good bike and make the effort to go enjoy it.

Male Interviewee B: Well in this trail there are some people even just walking with their kids and had little maps and, you know, observing things, taking pictures. I mean it really isn't a high-end investment. It's not a lot of high maintenance. It's so easy you just have to remember that they're here and access them and do it.

Male Interviewee C: It's different than just running on, like, the highway. You kind of get away from people There's nice views; you see farms, different where people live at, and it's kind of cool to see how they're living and that you can kind of run behind there. It's interesting to be in that kind of environment.

Male Interviewee D: It's a nice mix of countryside, open areas of woods and fields, that's also punctuated with small towns and villages and buildings along the way that make for an interesting ride.

Male Interviewee E: Try it once couple of miles, and they will realize that it is a lot of fun. You don't need to have a fancy bike just [use] any bike that you can find, and you don't need anything fancy to do that. [00:01:46]

Chuck Nelson: We're here at the western anchor of the Lake-to-Lake Trail system in South Haven, Michigan. The beginning of the trail is at the Kal-Haven trailhead that takes you all the way to Port Huron, Michigan: 275 great miles. Once you leave South Haven, you'll pass through many interesting towns: Kalamazoo, Battle Creek, Jackson, Pinckney, Wixom, Pontiac, Rochester, Richmond, and Saint Claire, as well as the anchor town of Port Huron.

Paul Yauk, State Trail Coordinator, Michigan Department of Natural Resources: In the past, we had great railroads for lumbering and for logging and for fishing and that type of thing. We're following those old courses that were really old Indian trails [from] 1000 years ago.

Andrea LaFontaine, Executive Director, Michigan Trails and Greenways Alliance: Driving over here today, we crossed over Pontiac Trail which has significant history here in Michigan. That was a trail, hundreds of years ago, that used to be used by Native Americans.

Clare Risner, Trail User, Mike Levine Lakelands Rail Trail: When I was born in 1944, The railroad still used [the tracks] and I used to ride my bike up and down [and] play on it all the time, and eventually they tore up the tracks and it was just a dirt trail. But I still ran on it and walked on it and thankfully over the years time they have improved it so now it's a very beautiful trail.

Andrea LaFontaine: So, there are actually five Great Lake-to Lake Trails statewide, and it was really a movement that started back in 2011 when our former executive director Nancy Krupiarz got together a group of- I want to say it was over 100 stakeholders. [She] brought

them all together and thought of this idea of having this network of trails that connect one Great Lake to another all throughout the state for people to access.

Bob Wilson: Many of the trails in Michigan took those old abandoned rail corridors and turned them into active trails with the potential, at some point in the future, to return them to transportation use if necessary. So, what we have here along the Falling Waters Trail is a perfect example of taking one of those old abandoned railroad corridors and turning it into a non-motorized trail.

Sheila Troxel, Trail User, Falling Waters Rail Trail: This is just a great way to bring families together, bring communities together and connect people, connect cities, connect communities. I think it's a great thing.

Andrea LaFontaine: Trails are at our root as people. As transportation corridors they were what people used to do and use before cars. Now we're kind of getting back to that, and it's great because it's not only a transportation alternative; it's connecting us to our roots, to our history, how we started, and we're just kind of evolving back to it and embracing it in our day-to-day life.

Bob Wilson: So, the great opportunity that's available to us here [unintelligible] trail route one is an Amtrak. A lot of their rail service runs almost parallel to this trail. So, with that in mind you have a chance to have a multimedia experience. You can park your car at a rail station, an Amtrak rail station, hop on the trail, [hop on] your bike, and then pick up the Amtrak train and head back to your car.

Anne Hubscher, Trail User, Falling Waters Rail Trail: That'd be really nice.

Ed Hubscher, Trail User, Falling Waters Rail Trail: The Amtrak idea is- I never thought of it. That's a really good one.

Anne Hubscher: Yeah, I never thought of it either because if they have a place to put the bikes and trikes, that would be ideal. I mean, then we could go farther.

Dena Leaster, Amtrak Conductor: They got new cars made by Siemens and they're going to have the luggage racks, the bike racks, built right into the luggage racks. Yeah, it's really good. It's going to be really cool.

Paul Yauk: We do follow some of the old railroad grades. We do have a partnership now with Amtrak where let's say you want to go from South Haven to Kalamazoo. Then, you can jump on the train. Or you want to go from all the way from South Haven to Port Huron. Then, you can get on a train and you can come back. So it's a great partnership with the railroad, and you can put your bicycle now on that railroad car and come back. So [it is a] good partnership. [00:05:52]

Chuck Nelson: Human spark plugs are vital to trail projects. They provide that burst of energy to bring projects to a successful conclusion. A key spark plug for the Great Lake-to-Lake Trail Route 1 is Mike Levine.

Bob Wilson: [Mike Levine's] vision was to build the Great Lake-to-Lake Trail Route 1 between South Haven and Port Huron. Mike had a passion. He certainly had the resources necessary to help us build the trail, but more than anything else, he made a personal commitment to trails.

Mike Levine, Inventor/Philanthropist, Hamburg Township: My son said to me "Dad, you can do anything, you [can] invent anything you want. You're never gonna put a trail together." And that's all I had to do is wave a red flag and I said "watch me." And we went ahead and started putting the pieces together working with MDOT and DNR.

Bob Wilson: Then, We are very fortunate to have people like Paul Yauk.

Paul Yauk: We have these individual column trail champions, but it's growing. You have Mike Levine, but there's a number of people along the way. You've got Washtenaw County and all the leaders there and then Livingston County, Oakland County, Saint Clair County, and you even have elected officials now and community officials. People are realizing the impact. It may be health; it may be recreation; it may be tourism, and it's cultural, so you're pulling a lot of things together.

Jeff Hardcastle, Board Chair of the Huron Waterloo Pathways Initiative, Ann Arbor, MI: The Ralph Wilson Foundation has been exceptional throughout southeast Michigan. We received a 2.8 million dollar grant from them three years ago. [We] have leveraged that for additional state money [and] for quite a bit of private money as well. So, collectively, I think we've spent something like 15 million dollars now in the last three years building seven or eight different trail projects in Washtenaw County.

J.J. Tighe, Director of Parks and Trails Initiative, Ralph C. Wilson Jr. Foundation: On October 17, 2018 there was an announcement that would have been on Mr. Wilson's 100th birthday where we made a commitment for 100 million dollars in southeast Michigan and 100 million dollars in western New York focused on our parks and trails.

There [were] two main themes associated with that 100 million dollar commitment to the region here in southeast Michigan: 50 million dollars was set aside for the Ralph C. Wilson Jr. Centennial Park, as it's named now, on the riverfront in Detroit, and the other 50 million dollars was set aside for eliminating gaps in trails throughout the region like here at the Michigan Air Line Trail. Beyond that, 20 percent of both of those figures was pulled aside and set aside for sustainability to establish endowments to make sure that these investments are not just here when we cut a ribbon, but they're here beyond that for future generations to enjoy.

[Regarding] our funding, we've supported capacity grants for organizations for trail planning grants so that segments of that trail, or the trails that we focus more broadly in southeast Michigan, can be developed into a buildable trail. We fund matching grants to support the actual construction of these, and I think there's several examples of that along the the Great Lake-to-Lake Trail from end to end. We've provided a capacity grant to the Michigan Trails and Greenways Alliance to do a lot of the work, working with the communities along the way. We funded a trail planning grant and design grant focused on phase one and then ultimately phase two of the Michigan Air Line Trail. We've provided match funds for each of those to make sure that these can be done in a sustainable way.

I think the other piece that also doesn't get highlighted quite as much is [that] we established that endowment that I mentioned for trails maintenance. One of those grants—the first ever that comes out of that endowment—is for another segment of the Great Lake-to-Lake just down the road here. That's to bring back to life one of the trails that's about four miles in

length that hasn't had that investment. It's a segment that connects the West Bloomfield Trail, which is just on the other side of where we're standing today, to the city of Pontiac, and I think a really important aspect to highlight. It's not just about building these [trails] and cutting a ribbon, but, again, [it's about] making sure that they're maintained and the quality of these assets in our region are to the highest standard.

John Hensler, Trail Manager, Michigan Air Line Trail: You can't really get the trail going without the funds, but you can't operate it without the support of a dedicated group of volunteers. They've done a great job in terms of organizing clean up days; organizing going to council meetings and township board meetings; and making sure that people, our elected officials, understand how important the trail is to the people in the community. That's a key thing. We've had a number of public hearings that we can count on them to show up and and make sure that their voice is being heard as well because when we're applying for grants, funds, and support from the communities, it's important to have the local folks come and say this is a vitally important thing for us to have.

Bob Wilson: So, trail building is all about resources. But more than anything else, [it's] about individuals who stepped up to the plate to help us drive trail building forward.

Sheila Troxel, Trail User, Falling Waters River Trail: All it takes sometimes is a spark to get a community excited about things. Then you can write grants, and then you're all of a sudden getting some tax dollars as well. So it starts with an idea, and look what it's become; it's gonna be a whole network of trails connecting lakes to lakes. It's gonna be great. We're excited. [00:11:38]

Chuck Nelson: Let's meet some of the people who have benefited from the Great Lake-to-Lake Trail Route 1 through better economic development, recreation, opportunity, improved health, and safe social connection in this time of Covid.

Ban Chavez, Traffic Signal Designer, Michigan Department of Transportation: Those trains, they go across small little towns, "Small America," what some people say, and you will find all kinds of small coffee shops [and] small bakeries [that] are mostly run by families. They put a lot of effort in making their things, so it is very enjoyable to eat and knowing that you're helping a local business.

Mike Levine: There's a woman that in Stockbridge, which is one of the dying type communities, opened the restaurant in Stockbridge.

Naomi Carson, Owner of Good Manna Restaurant, Stockbridge, Michigan: As this trail started to get improved based on the contributions of Mike Levine and the village of Stockbridge and some other folks, we really just started to see an opportunity. This building was sitting here, and it was abandoned and had been vandalized. We just saw—well wow if the trail's being improved—we see an opportunity for the cyclists and the people who are using the trail [for] exercising and walking. This could be an opportunity for us to put some sort of a business in here.

Mike Levine: [Naomi] says "I'm so excited." I said, "what are you excited about?" She said, "I'm leaving on Friday, and I'm opening this restaurant." So I said, "where are you opening a restaurant?" and she says, "Stockbridge." [unintelligible] I said because I knew the DNR had

changed its tone because they had such an expense keeping vandals outside of the building, so somebody should live in it and take care of it.

Naomi Carson: This building was gifted to us in the amount of 1 dollar from my father who did have the initial vision for this. Our business really is trail dependent. So far, we've been open for about a year, we opened on September 16, 2019. Our opening day was the inaugural ride of the Great Lake-to-Lake bike ride from South Haven to Port Huron; it really made sense for us to open on that day because we are so trail dependent.

This year has been kind of different with the pandemic and everything. We had anticipated opening on in March, for sure by Earth Day, and of course we didn't get to open until June. So we've seen not as much business as we would have liked to, but we are still very very trail dependent. Probably 50 percent of our business comes from cyclists and trail users, and so we're very grateful for those folks who are out using the trail. It makes sense because even when folks are supposed to be cooped up at home, they can still be outside, properly socially distancing, and using the trail and getting some exercise.

Mike Levine has had a huge impact on us here. I met him kind of serendipitously; it was by accident. I mentioned to him that I was going to be leaving my current job because I was opening a little business in Stockbridge. It just happened to be on this trail system named the Mike Levine Lakeland Trail State Park, and at first he was kind of coy. He didn't really acknowledge who he was, and I gave him my name. When I told him my name, he said "can you please bring me my assistant." I thought, "who is this guy that he would have a a personal assistant?" So, sure enough, it turned out that I was talking to the one-and-only Mike Levine, someone who was so instrumental in the success of of our business here.

He flattered me as well. He told me that we were the incarnation of why he donated such a substantial amount of money to this trail project, and his vision was that if he contributed funds to the trail, that businesses like ours would pop up. Very much like little businesses did when the railroad was coming through small communities. And I believe that he's right. [00:15:40]

Man lifting bike: Yeah, yep got it. Thank you.

Mark Wollensak. Trail User, Kal-Haven Rail Trail: What [we're] doing here today is going on a bike ride starting here in Kal-Haven in South Haven at the trailhead. We're gonna be riding into Kalamazoo and staying at a hotel in Kalamazoo for the night and then riding back.

James Christians, Trail User, Kal-Haven Rail Trail: We are camping in South Haven for the weekend, and we were just looking for an activity that would get us outdoors early in the morning, get the blood pumping, and see some of the the beauty of southwest Michigan.

Brian Kraus, Trail User, Kal-Haven Rail Trail: [The] trail's in fantastic condition. [There are] a lot of folks out, and it was great to socialize with our friends.

Dana Kraus, Trail User, Kal-Haven Rail Trail: It was actually busier than I thought it would be.

Angie Chrsitians, Trail User, Kal-Haven Rail Trail: It was busy, but it wasn't congested ever.

Everyone: Yeah

Dana Kraus: It was a nice activity for the situation that we're in right now to at least be outside and get some fresh air, but not feel crowded.

Sheila Troxel: Look at this family coming up. You see families doing stuff together, and this is just a great way to bring families together; bring communities together; and connect people, connect cities, connect communities. I think it's a great thing.

James Christians: Well on this trail [were] people even just walking with their kids, and [they] had little maps and [were] observing things [and] taking pictures. I mean it really isn't a high-end investment. It's not a lot of high maintenance. It's so easy. You just have to remember that they're here and access them and do it. It's definitely a great way to get outdoors and spend some time.

Brian Kraus: And support it. Support it with your local community and with state government support funds to go to establish these because it's kind of a neat part of Michigan.

Shari Schrader, Trail User, Kal-Haven Rail Trail: For me, not living in Michigan but growing up here, I so appreciate what Michigan has invested in the state. I even look forward to coming back and retiring here and having the trails and biking available.

Gabbie Graf, Trail User, Mike Levine Lakelands Rail Trail: I think during Covid, it's definitely helped us to have an activity to do when you just feel like you've been inside for too long. On a trail, you're safe. You can stay away from people at nice distance, but still say hi and talk to them and see where they've been and what their story is. You can go explore something new that you haven't seen yet.

Charlie Ross, Trail User, Mike Levine Lakelands Rail Trail: Yeah, I think it's just the natural aspect with Covid [and] being cooped up; the hardest part is not being able to interact with people. I think something as little as a hi or nice seeing you gets people back up in the spirits; just being able to have those, I know they're small, but at least something that gives me some substance to know I'm still here and alive and everything.

Jeff Hardcastle: Especially in the year of Covid, usage is sky high already. We've got counting studies that we've done all across the county, and we're seeing huge numbers. [They are] probably double what they were last year in part due to Covid but also in the fact that we built nine miles of trail in the last two and a half years. So as our individual corridors get built out, we're seeing traffic increasing exponentially.

Shawn Shepherd, Trail User, Mike Levine Lakelands Rail Trail: I think it's actually done really great with [unintelligible], with having the trail right here. [It's] so convenient, and unfortunately probably one of the best things that came out of Covid is the fact that the trails are busier this year than they've ever been since we've lived here.

Marian Frane, Trail User, Mike Levine Lakelands Rail Trail: I have to say also as we get older, we are more interested in riding on trails like this where we don't have to ride in the traffic.

Lyle Marshall, Trail User, Mike Levine Lakelands Rail Trail: Yeah, [it's a] much safer environment here being on a trail where we don't have cross traffic or traffic whizzing by us at 35 to 60 miles an hour. So it's safer.

Marian Frane: Some of the trails take you through nature, so that's always a plus.

Female Interviewee B: Well, I have a progressive form of Multiple Sclerosis, so my balance isn't very good. So this [recumbent tricycle] helps me actually because with a bike you have to balance and stuff. I used to do that when I was younger, but now obviously I don't have a good balance so it helps a lot.

Paul Yauk: Today with Covid, trails are really unique because we want to get the public outdoors, and the public [feels] safe in the parks. They, in particular, feel safe on trails.

Mari Craft, Trail User, Falling Waters Rail Trail: We came to the trail today because we needed to get out of the house during the pandemic. We've been kind of cooped up, and this gives us a chance to get out and enjoy ourselves outdoors.

Sarah Morris, Trail User, Falling Waters Rail Trail: It's the one thing that happens on a day that I can come with Sarah; when all of what I was worried about at home, I leave there.

Ben Chavez: On days like today when you had a hard day at school, a really busy day at school or at work, it's nice just to go out and get on your bike [and] bring your family. In this case, I got my daughter [and] her friend, and we just had a lot of fun. [00:20:40]

Chuck Nelson: Let's look ahead now to the future of Michigan's dynamic trail system.

Bob Wilson: Five years from now, Michigan will not only be the nation's leading land trail state; we will be the nation's leading water trail state. Right now we have 4200 miles of coastal trails surrounding Michigan. We have inland lakes and rivers and streams [that] can connect those lakes and connect land trails. So you will see five years from now an incredible multi-media experience. If you want to go out on trail, you could be on a land trail, you can be a water trail, and when you combine that with Amtrak and the incredible transportation opportunities, we have a chance to build an interconnected network of trails.

Dakota Hewlett, Iron Belle Trail Coordinator, Michigan Department of Natural Resources: It takes significant investment to develop a trail, but that's not where it ends. Ongoing maintenance for years is crucial to keep the life of that trail and keep that trail serving benefits to the community. We have groups like the Fred Meyer Foundation that have invested heavily in endowment to help take care of some of Michigan's trails well into the future, and those endowments are very important to pay for maintenance costs and reconstruction paving, all those costs that come when you think about building a trail. It doesn't end with development. Maintenance is so important. Having partners willing to donate and willing to help fundraise for maintenance is crucial, and also having regular people and trail users get involved in their local trail organization helps make Michigan's trail network much stronger. [00:22:20]

Bob Wilson: We need to make the trails accessible and welcoming for all people in Michigan. That, I think, is our greatest challenge right now and our greatest opportunity. When you do that, you make the state stronger; you make it more connected; you build communities that way. So I would say we need to really focus on increasing diversity. It's got to be our mission.

Andrea LaFontaine: If you are curious to check out a trail but have never done so, I highly encourage you look up a local trailhead. You find a place to park and just go check it out. You don't have to be doing anything extreme; you don't have to assume that you have to have all the gear and the fastest coolest bike. Go out there with your family. Just bring them out for a walk,

take your dog if you need to, check out the nature near you. I think I say that a lot, but really it's amazing because these amenities are right in our backyard. Covid has really compounded things, and people now being at home more often are looking to explore places near them, and we have all these fantastic trails so close to home. So I encourage people to explore, to get out there. Take your kids; take your family, and just go out there and walk, jog, hike—do whatever you want to do—ride your bike. Just get out there and enjoy it.

Karl Grieve, Trail User, Falling Waters Rail Trail: I think the great thing about having the interconnected network is that, [as much as the Falling Waters Trail has been a huge asset to the community], it's still just a point to point. We start here in Jackson, we ride to Concord, and then you ride back. If you don't want to ride on the road, you'd rather stay on a rail trail or something, that those opportunities tend to come in small chunks. So it's nice for those people that want to get out for those longer rides, or even for the people that want to actually make a vacation out of it—and we're going to do some bike touring and go from one place to another as a destination—that an interconnected trail system gives you that opportunity that you'd never have.

Bob Wilson: Trails are all about people: foundation of trails, people use the trails, involves people. To move Michigan forward, we need more commitment from the passionate people of the state. Michigan is the nation's leading trail state in terms of mileage. To maintain that leadership, we need people to make trails a priority as a land use tool, as a recreation tool, as a society building tool in their community, and we have seen numerous examples around the state where people have come forward and supported local millages. It's not just that; it's also getting people out onto the trails working as volunteers [and] supporting trails as important land use tools. We need more of that. [00:24:52]

John Hensler, Trail Manager, Michigan Air Line Trail: The best trailhead in the world is your own driveway. So pedal over if you can, get over to the trail, and then from the trail you can go and connect to all these other areas, and you can go far [or] you can stay close. Nobody's telling you to drive 50 miles or ride 50 miles on your first ride. You can ride five miles; you can ride three miles on your first run.

Alison Fredenberg, Trail User, Border-to-Border Rail Trail: I really love this trail. We bought our property here just because we wanted to get out into nature having no idea that they were going to build this trail. I'm like wow, what a bonus. I think our property value might go up because of this trail.

Andrea LaFontaine: Those who are interested in getting more involved with trails can definitely look up Michigan Trails and Greenways Alliance. Michigantrails.org is our website. They can get involved with being a voice in their local communities, being an advocate for trails, participating in different events statewide. We really look to embrace that grassroots level of communities that want to be involved with connecting trails to each other, connecting communities to each other, connecting people to each other; the opportunities are endless. So we welcome people, we encourage local citizens to get involved [and] embrace their local trail, but then also look this up and see if we can build on that local effort to make it more of a statewide network like this Great Lake-to-Lake Route 1 Trail.

Mike Levine: Trails connect people together that wouldn't ordinarily connect. When I come here on my bike on a Sunday just for recreation, I meet hundreds of people. Walking and cycling are the only two sporting things you can do and talk at the same time. You can't play tennis [and talk at the same time].

John Calvert, Founder, Friends of the Lakelands Trail: I think the best thing that comes out of the trail experience is the ability for everyone to interact and break down the barriers that seem to be limiting our current world. There's no reason why you can't talk to somebody and listen to them and figure out how we can make things better going forward.

Chuck Nelson: So as you've seen and heard, Michigan's trail system, including the Great Lake-to-Lake Trail, welcomes everyone. Come out and have an adventure: ride, walk, run, or jog. I look forward to seeing you on the trail.

Other Promotional Strategies

Additional promotional strategies include staging of events such as a bike tour or a foot race along a trail and focused celebrations of specific trail milestones such as the annual Michigan Trails Week or National Trails Day. Seminars and conferences around the state are also good opportunities to promote trails, such as the Quiet Adventures Symposium at MSU and the annual Mparks conference. Different legislative events such as a legislative bike ride or a group paddle on a water trail can help attract legislative support for trails. Mobile mapping applications like Strava can also be used to share promotional messages while also helping to show real-time trail use, identify use patterns, and show potential connectivity to users outside the designated trail system. Newsletters and blogs, as well as annual fundraising events, also provide promotional opportunities.

Signage

The use of signage is both a promotional and marketing effort, as well as a key safety and security component of trail management. For purposes of this discussion on trail marketing and promotion, the emphasis will be placed on utilizing a well-developed signage program to help promote and market a trail. Signage should be uniform in appearance and include established logos and brands where applicable. Instilling confidence in trail users may be the most important objective of an effective signage program, because trail users will not engage with the trail if they feel intimidated by the trail itself. There are three types of signage: regulatory signs, warning signs, and information signs.

Well designed use of trail signs helps to convey a sense of place and promote the public image of the trail. By Bob Wilson, CC BY-NC 4.0.

Regulatory Signs

Regulatory signage is used to inform trail users of selected laws and regulations that apply to the trail. There are specific manuals on the use of regulatory signage in Michigan (e.g., the Michigan Manual on Uniform Traffic Control Devices [MMUTCD])(MDOT 2022). MMUTCD signing standards generally apply to trail projects funded by the Michigan Department of Transportation (MDOT). Regulatory signage is often required by laws or policies and should be included in any good signage program.

Warning Signs

Warning signs are used to caution. They call attention to unexpected conditions on or near a trail, and to situations that might not be readily apparent to trail users. Warning signs are sometimes required by laws or policies.

Informational and Wayfinding Signs

Informational and wayfinding signs provide trail users with information that enhances the recreational experience and provide for user comfort. These types of signs are generally not required by law but complement an existing signage program to enrich the trail experience.

Interpretive Signage

An important type of informational signage is interpretive signage, which informs trail users about nearby natural, historical, or cultural resources. Trail managers and trail planners should always seek assistance from specialists when considering the inclusion of interpretive signs along the trail (California State Parks, Statewide Trails Section 2018).

Etiquette Signage

Trail etiquette signs help trail users understand the types of use of the trail to ensure satisfaction. Unlike regulatory signs, etiquette signs many not have a rule or law behind them. Etiquette signs help protect and provide for trail safety, nurture a respect for other trail users, and encourage trail users to respect the rights and responsibilities of adjacent property owners and the resources surrounding them. Using signage to set clear communication about trail etiquette and acceptable use provides guidelines for safe trail use and helps avoid user conflicts.

Trail etiquette signage also helps to convey an important image and brand for the trail. By Bob Wilson, CC BY-NC 4.0.

Wayfinding Signage

Wayfinding signs help trail users understand where they are located in a trail system, and how to navigate to other areas of the trail system. Examples of wayfinding signs include directional signs, intersection markers, confidence markers, and "you are here" signs.

Destination Trails

A special note should be made about the growing presence of destination trails and their opportunities to promote not only the trail itself, but also all the communities and their individual trails located along the destination trail. An example of a destination trail that has received significant state and national attention is the Great Lake-to-Lake Trail. This 275-mile trail joins numerous communities and counties in one trail corridor, while also promoting adjacent water trail and active rail use. These multimedia trail experiences help promote both the trail and business and economic activities throughout the region. The Iron Belle Trail and Shore-to-Shore Riding and Hiking Trail are also examples of destination trails that have received national and regional attention.

Group Discussion Topics

What are the key differences between trail marketing and promotional activities? Why are they essential components of the trail building process?

Signage is an effective way to communicate important messages to trail users. Are certain types of signage more important than others? As a trail planner, how might you prioritize diverse types of signage and why? Please describe how you would create signage that helps to alleviate conflict between potential users on a trail such as conflicts between equestrian and mountain bike use.

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10.

THE ECONOMIC BENEFITS OF TRAILS AND TRAIL BUILDING IN MICHIGAN

"By connecting a community's network of trails to another community's network of trails, each community gets stronger socially, economically, and health wise. In addition, when a trail is embraced by all members of the community, the trail network will evolve into a self-sustaining institution that provides a platform for a viable regional trail system."

—MIKE LEVINE, Great Lake-to-Lake Trail Facilitator and Philanthropist

Chapter Objectives and Goals

This chapter discusses the economic benefits of trails and trail-related activity, both in the United States and in Michigan. Economic analyses completed by organizations like the Huron River Watershed Council, Traverse Area Recreation and Transportation (TART) Trails, St. Clair County, Michigan State University, and Public Sector Consultants have clearly demonstrated that trails and trail-related activity can be powerful economic drivers for communities. After reading this chapter, students should understand why there is an increasing emphasis on examining the economic significance of trails in Michigan.

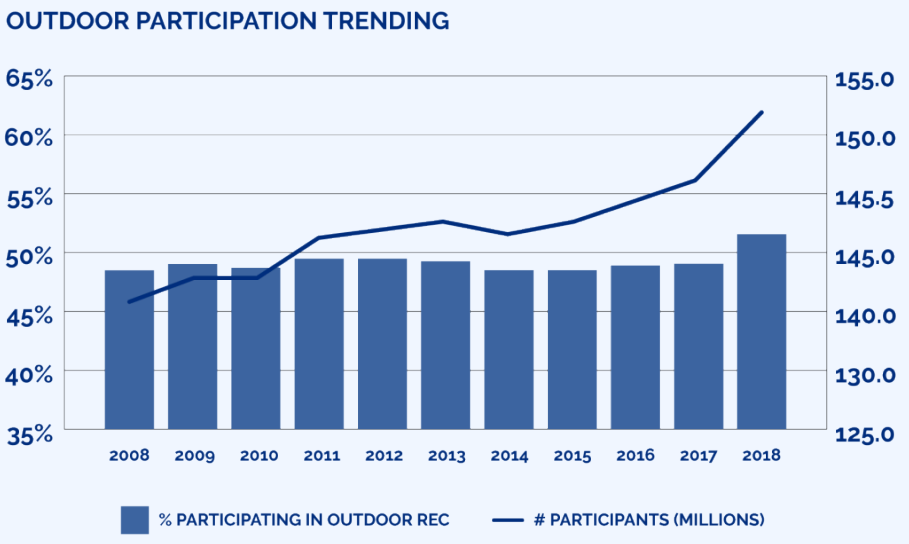
Key Questions to Consider as You Read this Chapter

1. What role does the outdoor recreation industry play in the nation's economy?
2. What are some outdoor recreation activities that generate a significant economic boost?
3. What are some economic trends related to outdoor recreation in the United States, and in what ways do trails influence these trends?
4. How do trails impact nearby property values?
5. What are some examples of direct spending and indirect spending related to trails and trail use?
6. How can the presence of trails affect healthcare costs in a community?
7. How can trails support employment opportunities in a community?
8. How can trails influence tourism-based economies?
9. Trails can provide alternative transportation routes. How can such routes help to improve local economies?
10. Give an example of a community in Michigan where the presence of trails has had a dramatic economic effect.

Introduction

The outdoor recreation sector plays a significant role in American lives, and many outdoor activities take place on or near trails. As demonstrated in Exhibit 1, overall nationwide participation rates in outdoor activities steadily increased over the last decade and are expected to continue to increase (BEA n.d.a; BEA n.d.b; Outdoor Foundation 2019; and White, Askew, and Bowker 2023). This activity generates a broad array of economic benefits for communities near trails.

Exhibit 1. Outdoor Recreation Participation Trending, 2008-2018



Source: Outdoor Foundation 2019

Economic Benefits of Outdoor Recreation

When discussing economic benefits, it is first important to understand the differences between "direct" and "indirect" spending. Direct spending is a term used to refer to money used to purchase goods and services directly related to a specific subject. Examples of direct spending include purchases of equipment (e.g., a bike, hiking equipment, shoes, etc.) and travel expenses (e.g., fuel, food/beverages, souvenirs, repairs, etc.). Indirect spending is a term used to refer to a purchase that serves as a multiplier for secondary spending. Consider, for example, a trail-side restaurant. The restaurant owner pays employees wages and buys food from local suppliers—this spending is referred to as indirect spending.

Numerous studies have shown that Americans' outdoor recreation generates significant economic activity. A 2017 Outdoor Foundation study showed that the outdoor recreation sector significantly impacted the U.S. economy by supporting about 7.6 million jobs, contributing $887 billion to the economy, and generating $59.2 billion in state and local tax revenue and $65.3 billion in national tax revenue (Outdoor Foundation 2017).

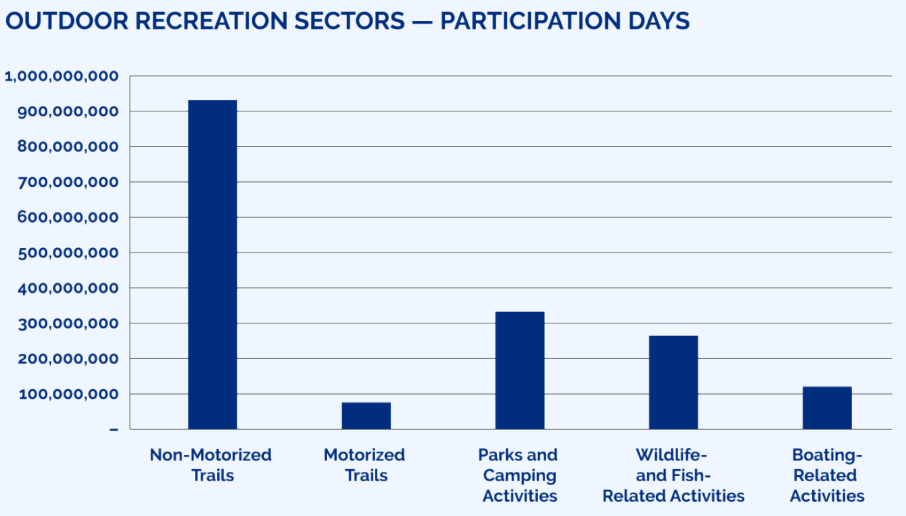
Economic Impacts of Outdoor Recreation in Michigan

In Michigan, outdoor recreation has been and will continue to be an important and popular activity for both residents and out-of-state visitors. Examples of activities that contribute to Michigan's outdoor recreation economy include camping, fishing, hunting, off-road vehicle (ORV) driving, snow sports, trail sports (e.g., horseback riding, mountain biking, trail running, etc.), water sports, and wildlife viewing. Nearly two-thirds (63 percent) of Michigan residents participate in outdoor recreation each year,[1] and eight out of ten residents feel that outdoor recreation is either important or moderately important to their household (DNR 2018; Outdoor Foundation 2017). Each year, outdoor recreation generates about $26.6 billion in consumer spending in the state, resulting in 232,000 direct jobs, $7.5 billion in wages and salaries, and $2.1 billion in state and local tax revenue (Achtenberg 2019).

As part of its ongoing five-year review of trends in outdoor recreation, the Michigan DNR determined in its 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) that participation days spent on non-motorized trails significantly outpaces all other outdoor recreation activities (Exhibit 2).

Exhibit 2. Participation Days in Outdoor Recreational Activities in Michigan, 2018

1. This is 12.5 percent higher than the nationwide average of 50.5 percent.



Source: DNR 2018

Economic Benefits of Trails

Trail-based activities like running, bicycling, and hiking account for three out of the five most popular outdoor recreation activities in the United States (Outdoor Foundation 2019). There are many well-demonstrated positive economic benefits of trails, such as (American Trails 2020; ECONorthwest 2019; McDonald and Brown 2015):

- Trails bring people to regions who spend money they otherwise wouldn't, which boosts spending at local businesses.
- Trails can increase the value of nearby properties.
- The presence of trails can reduce medical costs by encouraging exercise and healthier lifestyles.
- Trails can provide alternative transportation options, which can reduce fuel expenses.
- Trails can provide low- or no-cost recreation opportunities to the public.
- Trails can help local park and recreation departments meet recreation needs of the community by providing relatively low-cost recreation infrastructure for the community

in lieu of more expensive alternatives.

Economic Benefits of Trails in Michigan

At the state level, the economic benefits of trails are often measured by the general level of expenditure associated with a particular activity (e.g., spending for equipment, storage, repair and maintenance, etc.). While no comprehensive study of the economic significance of trails has been prepared for Michigan, multiple studies that look at individual uses demonstrate the importance of trails. For example, equestrian recreation (which generally takes place on trails) provides more than $539 million per year to Michigan's economy (American Horse Council Foundation 2017) and ORV users spend more than $212 million annually on ORV equipment and related services (Nelson et al, 2010).

Proper trail planning can coordinate economic development opportunities in communities along the trail. © Oakland County Planning Division. All rights reserved. Used with permission.

Benefits of Trails on Local Communities

In addition to national and state-level economic impacts, there are also demonstrated benefits of trails on local communities, such as:

- Increased property values
- Increased healthcare savings
- Increased tourist activity
- Business creation and expansion
- Support of community and workforce development goals

Property Values

Various studies have shown that trail development increases property values. For example, in a 2008 Michigan State University (MSU) Land Policy Institute study, researchers compared properties with and without walkable and bikeable infrastructure (i.e., sidewalks, bike lanes, trails, park paths, and safety paths) in Oakland County, Michigan. Most houses near those infrastructure opportunities were found to have a higher property value than those houses more distant to those infrastructure assets (Exhibit 3). Studies conducted in other regions of the country have yielded similar results (Webel 2018).

Exhibit 3. The Effect of Walkable and Bikeable Infrastructure on Property Values in Oakland County, Michigan, 2007

Location of House from Composite Green Assets	Percentage Gain in Property Value	Amount Gained in Property Value
Within 100 meters	–	–
100 to 500 meters	+4.6%	+$11,784.92
500 to 1000 meters	+2.6%	+$5,892.46
1000 to 1500 meters	+6.3%	+$16,140.22
Base Comparison: > 1500 meters	*Base*	*Base*

Source: Adelaja et al 2008

Healthcare Savings

We also know that trails can help increase physical activity, which in turn has a demonstrated effect on increasing healthcare savings. Trails provide a safe and inexpensive venue for regular physical activity. More studies are beginning to explore the link between trail use and healthcare savings. Several studies have found that a one-dollar investment in trails leads to approximately three dollars in medical savings per person (American Heart Association 2016; Miami-Dade County 2011; Wang et al 2004).

Trails helped to promote an active lifestyle leading to reduction in healthcare costs.

Tourism Activity

Trails can also increase tourism activity, as trail systems can attract a variety of tourists, including event-oriented trail users and more casual day users of trails. Many regional trail systems are being utilized to support trail events such as organized runs, walks, cycling, and equestrian activities. Long distance destination trails draw recreationists seeking multi-day experiences. Many casual day users are often attracted to trails that have a particular cultural or historical significance or have popular restaurants and hotels located nearby.

Trail signage helps to promote downtown commerce. © Oakland County Planning Division. All rights reserved. Used with permission.

Business Creation and Expansion

Trails support business creation and expansion of existing businesses. The enhanced level of tourism and local use from trail development can drive business creation as increased trail usage specifically supports the hospitality sector, including lodging facilities, restaurants, bars, and retail shops. A direct spin off from increased trail activity benefits trail-related retail businesses, such as bike shops, canoe and kayak liveries, horse rental stables, and outfitters. There are a wide range of businesses that have seen significant retail dollar increases from trails and trail-related activities in the community.

Community and Workforce Development Goals

Trails can also have an impact on attracting key talent and skilled workers for workforce development. Trails have been recognized as an important factor in the overall quality of life of a region and can make a difference in a person's interest in taking a job in that community. It is not unusual for people living in places like Traverse City, Kalamazoo, Marquette, and other trail-rich communities to comment about the significant network of trails that allow them to enjoy a higher quality of life.

Many smaller Michigan cities have been revitalized by trail development. © Oakland County Planning Division. All rights reserved. Used with permission.

Trails as Transportation Routes

More and more regions are including trails, and expanded urban pathways in downtown areas, as a way of providing alternative methods of transportation to help reduce fuel costs and decarbonize lifestyles within the community. Several federal governmental programs specifically fund the development of trails as a transportation alternative (e.g., the Transportation Alternatives Program and Recreational Trails Program).

Some key benefits of using trails as transportation routes include:

- Physical activity and related reductions in healthcare costs
- Environmental benefits (less air and water pollution, etc.)
- Increased property values along routes
- Viable transportation routes for residents who do not have access to a car or public transportation

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Economic Impact Studies

Several economic impact studies have been completed that help demonstrate the financial support that trails provide to Michigan's communities.

2013 TART Trails Economic Impact Study

A 2013 TART trails economic impact study on the Vasa pathway in the Traverse City region concluded that the non-motorized pathway is a key economic driver for the region. The study found that the pathway is visited more than 55,000 times by at least 6,200 users each year. Those trail users each spend an average of about $3,700 per year on equipment, lodging, clothing, and other goods and services and provide more than $23.5 million in direct spending in the region annually (Smith and Tisdale 2014).

2016 Huron River Water Trail Economic Impact Assessment

A 2016 Huron River Water Trail economic impact assessment found that the Huron River (which is designated as a National Water Trail) "supports recreation, tourism, and business activities that generates substantial income for the local economy" (Isely et al 2017). Key findings in the study include that the river and the water trail generates about $53.5 million in

annual economic activity, adds about 641 local jobs to the region and $628 million in increased property values of nearby properties, and draws about 2.6 million visitor days per year.

2018 Kent County Park System Economic Impact Study

Another economic impact study was conducted in 2018 by the Kent County Park system. In this study of forty-two parks and trails in Kent County, a key finding is that trails and parks play an important role in stimulating business and contributing to the West Michigan regional economy. The study also found that the approximately 1.4 million visitors (both local and non-local) who visit Kent County's parks and trails spur about $33 million in economic activity per year and help support more than 317 jobs (Glupker et al 2019).

2019 Public Sector Consultants Study

In 2019, Public Sector Consultants (PSC) evaluated the user patterns and economic significance of trail systems in six communities in the country with to assess whether they were "best in class" trail systems and what lessons could be learned from these communities. These trail systems are located in Erie County, Pennsylvania, Midland County, Michigan, Fayette County, Pennsylvania, Northwest Arkansas, Grand Traverse County, Michigan, and Wright County, Minnesota. These trails all have well-developed systems and were selected for the study based on relevant criteria such as demographics, economics, and land use characteristics. The purpose of the study was to inform a development strategy proposed in St. Clair County, Michigan (PSC 2019).

The study included the following key findings:

- The most economically impactful trail systems are designed to cater to both residents and tourists.
- Key factors impacting the economic value of a trail include proximity and connectivity to community assets like business districts, cultural amenities, and unique natural features.
- Developing a brand and consistent wayfinding standards helps to yield significant dividends for trail systems.
- The establishment of a maintenance endowment that is capitalized during initial trail development is a good way of providing sustainable funding to maintain that quality trail system.

Trail amenities can help to convey a sense of place and lead to a more inviting trail environment for both businesses and trail users. © Oakland County Planning Division. All rights reserved. Used with permission.

Conclusion

As has been mentioned in several points throughout the book, data collection and data analysis are an important and emerging need for trail planning in Michigan. Many economic studies have clearly demonstrated the economic benefits of trails, and further studies will likely continue to demonstrate the positive economic benefits that trails provide for a community (Lukoseviciute, Pereira, and Panagopoulos 2022). The growth of outdoor recreation in Michigan is highlighted by the continued rise and popularity of trails and their benefits for communities. Trails help increase property values, drive healthcare savings, enhance tourism activity, and spur community workforce development goals. A continued investment and focus on economic analyses is an important step that should be taken to continue to observe and evaluate these trends to provide trail managers and trail advocates with important and up-to-date information.

Group Discussion Topics

Economic impacts are often categorized by direct impacts and indirect impacts. Please explain the difference between direct and indirect economic impacts and give an example of each as they relate to trails.

There are many well-demonstrated positive economic impacts of trails. Are there any potential negative economic impacts of trails? If so, what are they? If not, why not? Please describe a proposal that would document and confirm the positive economic benefits of trails in a community. What are the impacts of trails on home values and property values and how do you convince people in a neighborhood that are concerned about the impact of trails on their property values.

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11.

CONNECTING PEOPLE AND PLACES AND BUILDING STRONGER COMMUNITIES WITH MICHIGAN TRAILS

"Trails are a remarkable community asset because they provide for and facilitate such a wide range of benefits. For this reason, trails should be a foundational cornerstone of every community's land use planning efforts."

—ANNA LEE, PUBLIC SECTOR CONSULTANTS

Chapter Objectives and Goals

Trails provide valuable ways for a community to connect and learn about topics like cultures and the diversity of an area. This chapter discusses the important role that trails provide for people to connect with one another, promote diverse and safe trail uses, and develop a stronger and more vibrant community and state.

Key Questions to Consider as You Read this Chapter

1. Describe some of the positive impacts that trails have had on people living near a trail, and how they relate to quality of life.
2. How do trails help preserve and protect a community's cultural heritage?
3. How do trails positively impact health and education?

4. What impacts do trails have on connecting neighborhoods and communities?
5. How can the presence of trails help reduce crime in a community?
6. How do trails help decarbonize communities and promote sustainable use of natural resources?
7. Why would an employer seeking to attract new employees promote the presence of trails in their community?
8. Describe an example of a group of property owners in Detroit that used abandoned alleyways to create small local trails to connect communities within the neighborhood.
9. How can trails help address environmental injustice?
10. Why are trails an important tool in helping bridge political divides within a community and a state?

Introduction

Trails have been called "America's new front porch" because they often provide a welcoming, open, and friendly environment for making important human connections that are vital to a community's quality of life. People generally feel happier and willing to engage with one another when they are in an environment where they feel safe and supported. Think about how you feel when you're outdoors in a peaceful setting, aware of where you are and where you are going, and able to concentrate on the environment around you. This type of sensation is commonly felt by people using trails and can help contribute to a feeling of community and sense of appreciation for what the community offers. The many social benefits of trails and greenways are well known by trail users around Michigan as trail events such as organized hikes, bike rides, equestrian events, and snowmobile and off-road vehicle events often become the setting for building and maintaining social connections.

Trail building and volunteer work can bring a community closer together. By Bob Wilson, CC BY-NC 4.0.

Social Benefits of Trails

The social benefits of trails and greenways are well-demonstrated and far-reaching:

- Trails connect people and their community (both figuratively and literally).
- Trails can increase residents' quality of life.
- Trails can help increase the knowledge of the community and its members.
- Trails can expand the diversity of a community.
- Trails can help address environmental injustices.

Even people who do not use trails can gain from their positive economic, environmental and public health benefits because trails generally improve the community in which they live.

Group trail rides are excellent way to connect community members to local trails. By Bob Wilson, CC BY-NC 4.0.

Trails Connect People and Communities

Trails are a great leveling field in that a trail can typically be built almost anywhere and be used to connect people within the region. It is not unusual for new social groups to spring up as a trail is built or contemplated in a community, as people often look for ways to get involved and ways to invest their time and energy to improve the places they live and/or work.

Some examples of ways in which trails connect people include, but are not limited to:

- Trails create physical links between destinations.
- Trails act as a meeting place for social interactions.
- Trails foster community involvement by providing opportunities for people to volunteer and give back to the community.
- Trails can help build partnerships among entities like private companies, landowners, government agencies, nonprofit organizations, community residents, etc.
- Trails can cultivate a sense of community unity and pride.

Trails Increase Quality of Life

Trails and greenways are often cited by planners, government officials, and other entities as being an important factor in a region's overall quality of life (QoL) (Lawson 2016 and Shafer, Lee, and Turner 2000). QoL is a function of biophysical, environmental, and social conditions. Key elements of QoL include:

- A consistent sense of safety.
- An opportunity for meaningful education.
- The opportunity to maintain or attain physical and mental health.
- An opportunity for personal wealth and employment.
- Good environmental quality.

Trails are Safe Spaces

Well-managed trails provide a safe and accessible space for people to recreate, connect with other residents, exercise, travel, and enjoy outdoor spaces. A 1998 Rails-to-Trails Conservancy (RTC) study found that trails and greenways can help reduce crime rates in an area through effective trail design, management, and trail patrols (both volunteer and professional) (Tracy and Morris 1998).

Clearly marked trails that have designated uses help to promote a sense of safe space in a community. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Trails Provide Educational Opportunities

Trails can also provide an important role in educating the public about the natural, historical, and cultural resources around them. A great example of a program that uses trails to provide educational opportunities is a program called Pedaling with a Purpose, which was established in Petoskey Public Schools in partnership with the Top of Michigan Trails Council. The Top of Michigan Trails Council works with schoolteachers to get students out on a nearby trail to help them become familiar with both the cultural and natural resources in the community. Students have an opportunity to either ride a bike or walk throughout the trail system and learn about the presence of natural assets like critical sand dunes, wetlands, lakes, rivers, and streams, and learn about local history through a direct, hands-on experience (Top of Michigan Trails n.d.).

Trails Honor and Celebrate Michigan's Indigenous Heritage

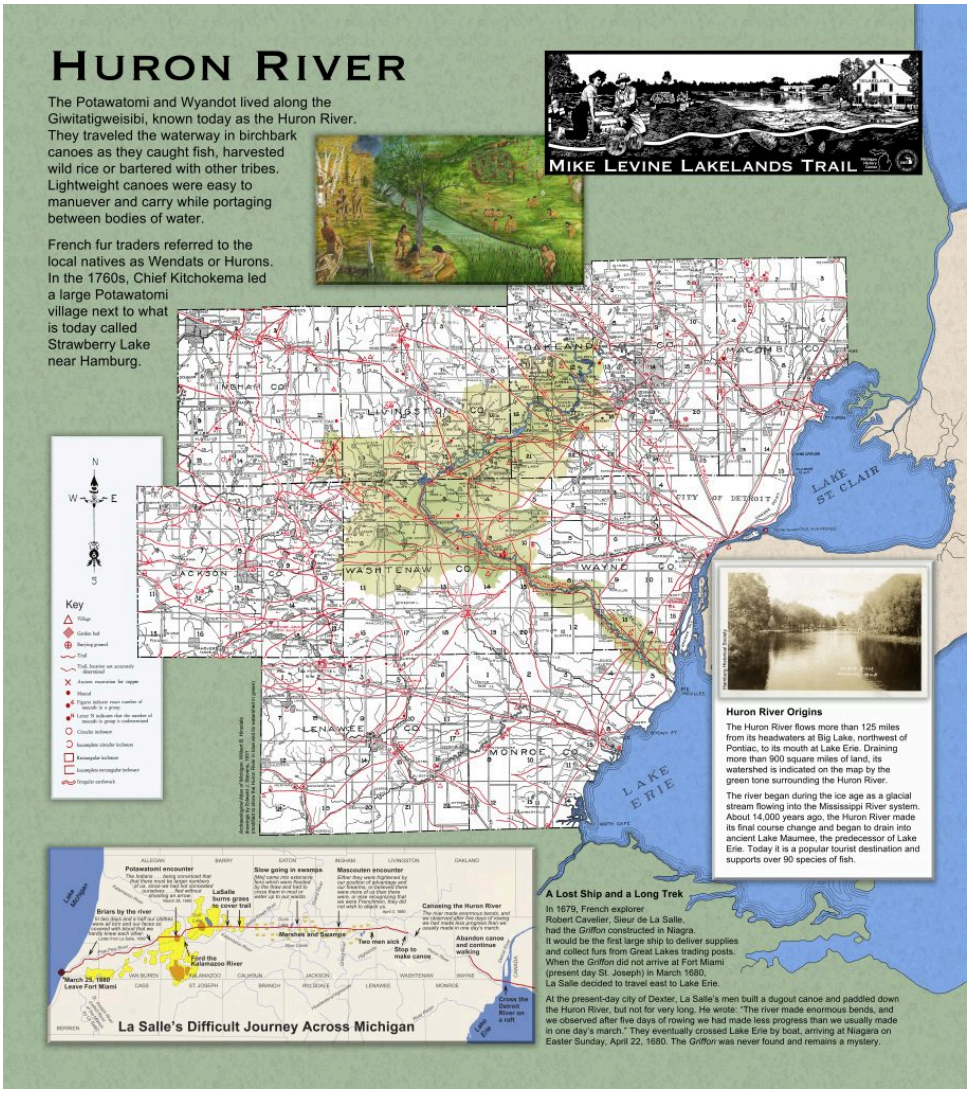
As previously discussed in Chapter 1, Michigan owes much of its foundation as the nation's leading trail state to the important role played by Native American tribes in developing its first land and water trails. The Michigan Heritage Trail program has invested significantly in

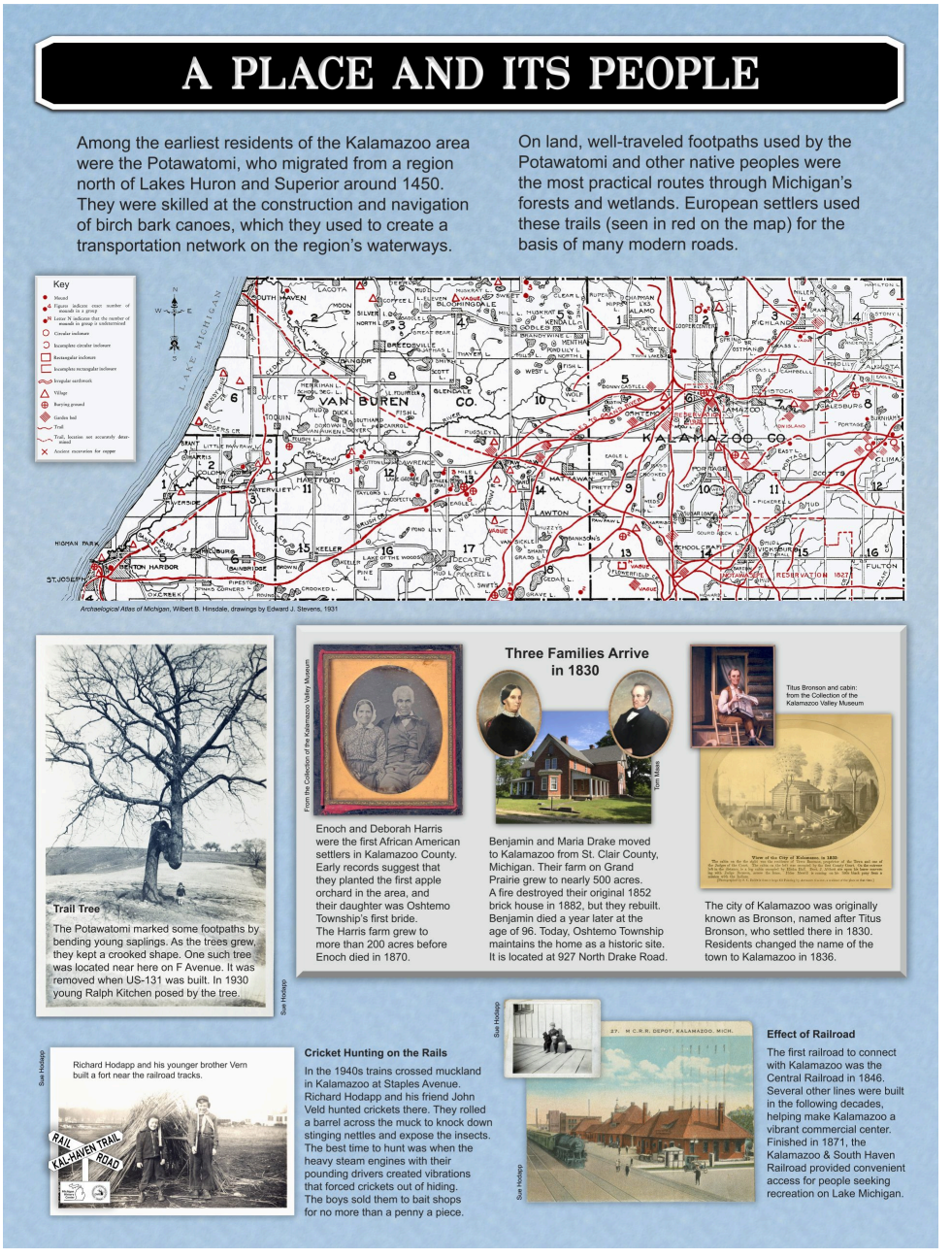
helping to tell this story through various interpretive programs. Signage located throughout many of Michigan trails convey the important role that indigenous people played in our early trail development.

According to Dan Spegel, Heritage Trail Coordinator at the Michigan Department of Natural Resources (DNR):

"Heritage trail interpretive signs share the natural and cultural heritage of the landscape and communities that the trail passes through. Anishnaabek stories are shared all along the trail as part of this effort."

Found below are several examples of interpretive panels located along Michigan trails that contain stories of the rich history of the Anishnaabek. These panels help educate and promote the continuing recognition of these important contributions. Visitors to these trails can understand better the commitment and important role that trails played and continue to play in the lives of Michigan's indigenous people.





The DNR Heritage Trail program helps to celebrate the Anishnaabek role in establishing the foundation for many of Michigan's trails. © Michigan History Center. All rights reserved. Used with permission.

Trails Advance Diversity, Equity, and Inclusion Goals

Historically, the planning and development of where trails (and their associated benefits) are located has often been inequitably distributed across landscapes. Low-income neighborhoods,

communities of color, disabled people, older adults, and people with limited English proficiency are examples of groups that have traditionally been underserved in relation to trails and parks (RTC n.d.). Trails can help promote diversity, equity, and inclusion (DEI) by providing a safe and welcoming setting for all and facilitating access for people who may not typically be able to access the outdoors. It is also important to note that while not every trail may be suited for all types of trail user groups, trail managers should still aim to provide diverse options for a variety of trail user experiences within a region.

DEI goals can be promoted and enhanced through continued investment in trails and trail-related programs that aim to increase accessibility and draw increasingly diverse sets of users to our trails. More resources should be invested in expanding diverse and equitable uses of trails and many trail managers should focus trail improvements on increasing diverse and equitable access to trails. Staging events, social media promotion, marketing, and education are all important tools that can be used to make more people feel comfortable and familiar on our trails.

Tracker Chair at Maybury State Park. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Trails Improve Health

Participating in outdoor recreational activities is associated with mental health benefits like reduced stress, better sleep, reduced depression and anxiety, and increased prosocial behavior. The benefits of regular physical activity are well-documented and include benefits like

increased fitness and cardiovascular function and reduced risk for several major diseases, including cancer, heart attack, stroke, and diabetes (World Health Organization 2024). Spending time in nature and natural spaces has also been found to be "cathartic, reinvigorating, and/or restorative" for people with serious illnesses (Harmon and Kyle 2020). Attaining good physical and mental health is also associated with strong social relationships and a positive self-image.

Trails Increase Community Wealth and Employment

Although this topic is covered more thoroughly in Chapter 10, there are well-documented positive economic benefits of trails, including:

- Trails create jobs through the trail planning and building process, as well as through maintenance and continued activity.
- Trails increase the value of nearby properties.
- Trails can reduce medical costs by encouraging exercise and good health.
- Trails provide alternative transportation options, which reduces fuel expenses and a community's carbon footprint.
- Trails provide low- or no-cost recreational opportunities to the public.

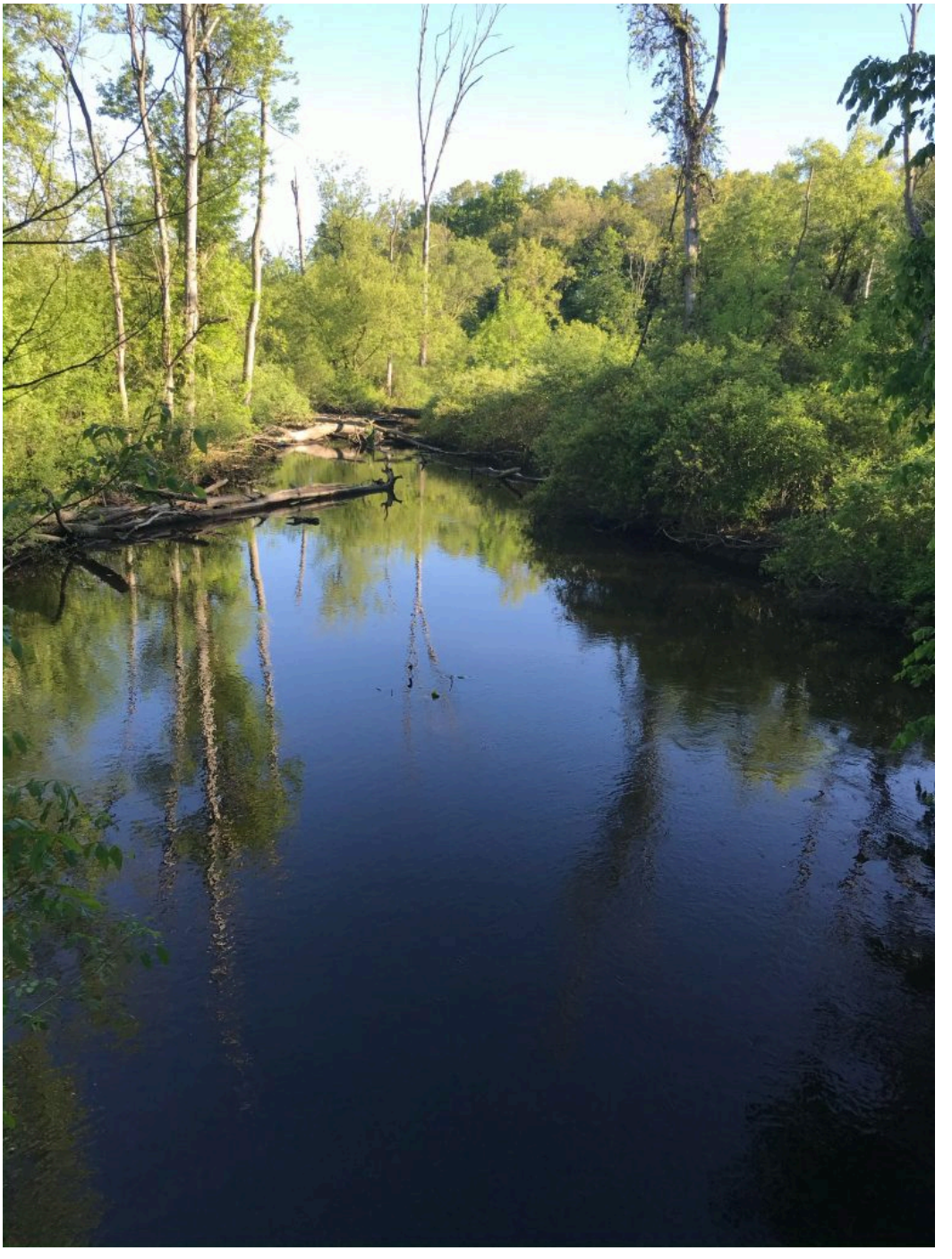
Organized trail rides can be a significant boost to tourism and local economies.

Trails Enhance Environmental Quality

There are many environmental benefits of trails, including but not limited to (American Trails Staff 2013):

- Trails help preserve and protect green space, including sensitive habitats.
- Trails improve air and water quality by reducing harmful emissions and creating buffers from development.
- Trails provide important pathways for plant and animal migration.
- Trails can help us reduce dependency on oil and gas for transportation.
- Trails can allow humans to explore and interact with nature with minimal environmental impact.

As people begin to understand more clearly that human behavior has a direct impact on changing climate conditions, they should also understand that trails provide opportunities for people to minimize negative environmental impacts. A healthy natural environment is an important part of social sustainability in that it supports essential ecosystem services that help sustain our society.



Rivers and wetlands can be protected with the green spaces that trails provide. By Bob Wilson, CC BY-NC 4.0.

Trails Transcend Political Boundaries

In a time of increasing political polarization, political boundaries can often foster a sense of isolation. However, trails can provide common ground for people and their elected officials to work together for the benefit of the community. Trails have proven to be a bipartisan "safe space" for unifying elected officials. Over the course of the last thirty years, the Michigan Legislature has worked in a consistently bipartisan fashion to both understand the benefits of trails and support trail legislation, as illustrated by the passage of legislation like the Michigan Trailways Act.

Trails and Environmental Injustice

One of the vexing problems facing people in communities throughout the country is the impact of environmental injustice, which has resulted in vulnerable communities bearing an inordinate amount of the costs of environmental liabilities (Center for Sustainable Systems 2024). The presence of industrial waste sites, industrial manufacturing facilities, hazardous waste landfills, and other similar facilities depresses community safety and pride and directly impacts public health and property values. Trails can provide an outlet to raise up the community and coalesce community members to fight back against the political forces that result in environmental injustices, since the presence of trails can help level the playing field for providing safe, healthy, and sustainable communities.

Trails reinforce a spirit of community and build valuable relationships that attract investment and revitalization. © The Detroit Greenways Coalition. All rights reserved. Used with permission.

Case Studies

Korey Batey and His Neighborhood Volunteers

A great example of how trails can help improve life in a vulnerable community is the Alley Activation project undertaken by Korey Batey, a citizen in Downtown Detroit. Batey worked with area neighbors and local organizations to turn abandoned alleyways into a series of short trails. These trails provided opportunities for people to open their garages and develop small businesses for trail users to frequent. This small trail building project became a point of community pride as residents in this area were able to clean up the neighborhood and increase property values. The greatest impact of this effort was that it united the community and helped spur additional civic engagement (Draus et al 2022).

Great Lake-to-Lake Trail—Route One

It is important to look at some of the newer regional destination trails and what they have meant for social utility in Michigan. The Great Lake-to-Lake Trail, as has been mentioned previously, is a destination trail approximately 275 miles long that runs between South Haven and Port Huron. Connecting many of the communities within this region has provided direct opportunities for people living in urban, rural, suburban, and industrial communities to come together in a common safe venue (Michigan Trails Magazine n.d.). One can literally see the entire patchwork of Michigan's social communities within this one trail and understand how a common asset can help to link the future of this part of the state.

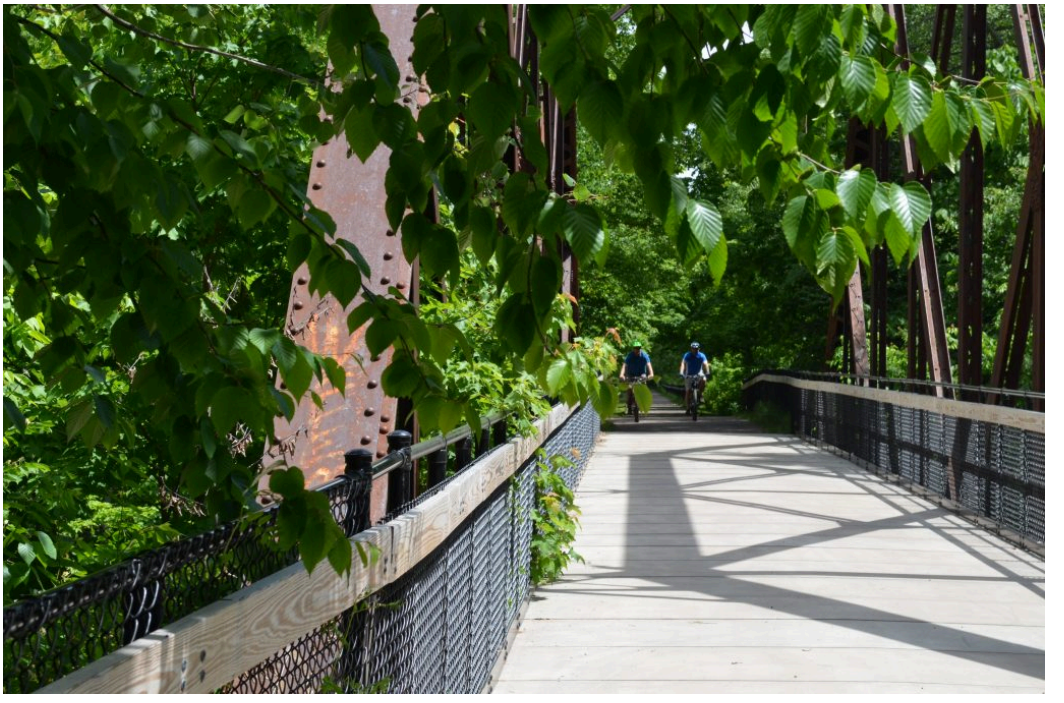
Clinton River Trail

Another example of a destination trail connecting communities is the Clinton River Trail, a rail trail that extends across sixteen miles of Oakland County, connecting suburban, urban, and rural portions of Detroit's northern suburbs (Clinton River Trail n.d.). The Clinton River Trail is an excellent example of a multimedia trail experience that links a land-based trail with nearby water resources.

Iron Belle Trail

Michigan's state motto, found at the base of the great seal of the state, "Si quaeris peninsulam amoenam circumspice" ("if you seek a pleasant peninsula look about you") is animated in the Iron Belle Trail (IBT). This two-pronged 2000-mile trail combines both a hiking and a biking

route and runs from Belle Isle in Detroit to Ironwood in the western Upper Peninsula. The IBT was a vision of Michigan's Governor Rick Snyder and is being built not only to help unite people throughout the state, but also to bring a sense of pride for Michiganders in celebrating our beautiful peninsular state.



Iron Belle Trail. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

Conclusion

Trails are "America's new front porch" as they help provide a welcoming, open, and friendly environment for making human connections. Trails can raise up a community and engage community members in so many ways, and they also help promote DEI by providing a safe and welcoming environment for all.

Group Discussion Topics

What responsibility do we have as trail managers and trail advocates to promote diversity on trails? Please show one hurdle that we must overcome and one opportunity that we can use to expand diversity on our trails.

Environmental injustice affects communities across the nation. How might trails and trail building empower community members to fight against the many forces that cause environmental injustices? Please describe a proposal that would result in a more consistent development of trails in communities that are often neglected by our policy makers.

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12.

EMERGING ISSUES IN MICHIGAN TRAIL BUILDING LAW AND POLICY

> "Trail management must evolve in accordance with societal and community conditions. With emerging uses on trails, such as the surge in use of electrified vehicles, there are many new challenges and opportunities ahead. The importance of managing trails based on data and considerations for topics like public health, natural resource conservation, and changing climatic conditions will continue to be increasingly important."
>
> **—BOB WILSON, INSTRUCTOR, CSUS 491.**

Chapter Objectives and Goals

What is the future for trails and trail managers in Michigan? This chapter discusses future management considerations like managing public access, resolving user conflicts, and maintaining consistent and accurate collection of trail data. This chapter also addresses issues like impacts on trails from climate change and severe weather events, managing sites of historical contamination on or near trails, and how future development may present land use conflicts.

Key Questions to Consider as You Read this Chapter

1. Regardless of changing future conditions, what important community function will trails continue to provide in Michigan?
2. How might the increase in electric bicycle (e-bike) usage impact trails and

trail management?

3. Why is data collection important and what are some actions that can be taken to provide more consistent data for trail managers?
4. What is an example of an approach that trail managers can take to reduce conflict on trails?
5. What is a regional "trailshed?"
6. What is one of the most important planning components emerging in the development of water trails?
7. Why have destination trails become so popular in Michigan and other states?
8. Despite having significant sources of trail funding in Michigan, what is one area of trail activity where Michigan lacks a dedicated funding source?
9. What challenges do climate change and public health emergencies present to trail managers?
10. Think about the important role trails can play in decarbonizing transportation. How can trails help create a more sustainable system of transportation in Michigan?

Introduction

Michigan has a rich legacy in successful trail development due to management efforts by hard-working individuals and organizations around the state. Nonetheless, there are both challenges and opportunities that await a new generation of trail leaders. Trail planners and managers must consider the following topics when thinking about and planning for the future of Michigan's trails.

Trails as a Community-Building Asset

One of the most significant opportunities and challenges for trail managers and trail advocates is to ensure trails are both highlighted and recognized as a foundational community asset, not just for providing recreational opportunities, but also for increasing public health, aiding in transportation, and building social connections. Land use planners must continue to see the value of including trails in their community and begin to more fully appreciate the concept of

regional "trailsheds," which is a regional trail planning approach centered around coordinating local trails and strengthening bonds between communities.

Trailside business opportunities will continue to expand in Michigan to take advantage of increasing trail traffic, 2024. By Bob Wilson, CC BY-NC 4.0.

New and Emerging Uses

There are many new and emerging uses of Michigan trails, and many of those uses involve the increasing electrification of vehicles (e.g., e-bikes and electric scooters). New uses on trails must be managed and accommodated properly to facilitate new user groups while still ensuring a safe and welcoming environment for all trail users. Trail managers must approach these challenges with an open mind and attempt to make accommodations as these new uses offer the opportunity for a wider range of the public to access trails.

New trail experiences like this shoreline ride are the result of forward thinking partnerships. By Anna Lee, CC BY-NC 4.0.

Data Collection and Trail Development

One of the most pressing needs that has not been fully met in Michigan is the need to build a coordinated statewide system of collecting and managing trail use data. Without access to consistent and reliable data, trail managers lack information necessary to understand how trails are being used. Whether making the case for economic benefits, public health benefits, improving property values, or connecting people and communities, having good data can help communities make more informed and effective trail management, development, and enhancement decisions.

Managing Conflicts

The ability to anticipate and manage potential conflicts on trails is a pressing need for trail planners and managers. As trails become more popular, trail user conflicts will likely increase. Having a diverse set of trails within specific geographic regions that provide opportunities for a variety of uses could help reduce user conflicts. There should be a concerted effort to build out the concept of regional trailsheds, in which trail planners create regional grouping of trails that can meet trail use needs within the region.

Recent legislation has begun to both expand and restrict Ebike use in Michigan. By Pattrick Yockey. All rights reserved. Used with permission.

Safety and Security

Trail planners and managers must keep safety and security at the forefront of any trail plan to ensure that trail users have enjoyable experiences on the trail. Clear and consistent signage, proper enforcement of rules and regulations, and methods of encouraging users to be mindful of trail etiquette while on a trail are key components of an effective trail safety plan. Nothing will impact a trail experience more negatively than a user feeling unsafe or insecure on the trail.

Competing land use and increasing development can impact trail use. Local planners and managers need to be proactive and work with commuting needs, 2019. By Bob Wilson, CC BY-NC 4.0.

Rising Popularity of Water Trails and

Destination Trails

Water Trails

The last five to six years have seen an incredible rise in the popularity of water trail usage and development in Michigan. State and local water trails provide the public opportunities for intriguing and unique trail experiences that connect users with Michigan's vast network of water resources. Trail managers must take lessons from the early leaders in water trail development and build trails that ensure that safety is paramount (e.g., via robust educational campaigns and signage). There should also be a focus on creating land and water connections so trail users can access multimedia trail experiences.

"Safety seminars are vital and helping to introduce the public to new water trail adventures."

Destination Trails

There is a rising demand for destination trails around the state, which is illustrated by the increasing length and connections of regional trails. The Great Lake-to-Lake Trail, Iron Belle Trail, and Shore-to-Shore Riding and Hiking Trail are prime examples of destination trails that allow a trail user to move from one point of the state to another. There is something magical about being able to dip your bicycle wheel in one Great Lake and then six or seven days later dip that same bicycle wheel in another Great Lake 275 miles away. Or think about traveling on the Iron Belle destination trail that connects a trail user with the state's major urban area in southeast Michigan and then with a remote Upper Peninsula town hundreds of miles away!

New Sources of Trail Funding

Trail planners must continue to explore new sources of trail funding, particularly sources that could help fund the state's nonmotorized trail system. For example, a new trail user fee could be developed to support the ongoing management and maintenance of nonmotorized trails. Although motorized users already pay a fee to support state-designated motorized trails, there is no similar fee-based system for nonmotorized trail use.

Lessons Learned from the COVID-19 Pandemic

We must acknowledge the opportunity that trails gave people to get outdoors in a safe and healthy environment during the COVID-19 pandemic. Trails must continue to be regarded and promoted as a vehicle for providing a healthy outlet for the public, particularly during times of emerging health concerns.

Trails have given us a safe and accessible place for people to be outdoors. © Michigan Department of Natural Resources. All rights reserved. Used with permission.

New Liability Issues

Given the impacts of climate change and increasingly severe and significant weather events, every effort should be taken to ensure trail infrastructure is as robust and resilient as possible. Additionally, with the emergence of new land and water-based contaminants (e.g., per- and polyfluoroalkyl (PFAS) contamination), trail planners and managers must understand that without remediation, some trail corridors may expose users to historical contaminants. Trail planners must work with state and local officials to develop trail plans that either remediate or contain nearby contaminants.

As trail mileage expands around the state, trail managers must continually be aware of the need to protect natural resources, including impact on critical habitat for wildlife. By Bob Wilson, CC BY-NC 4.0.

National and Multi-state Trails

There will likely continue to be a growth in both national and multi-state trails, as illustrated by the continuous growth of National Scenic Trail mileage throughout the country. The Great Lakes region with its eight Great Lakes states and two Canadian provinces holds promising potential for new multi-state and multinational trails.

Trails as Transportation Corridors

With continued efforts to decarbonize our modes of transportation, and the continued focus on creating a network of trails throughout the state, we can reasonably expect more trail users to use trails for transportation and commuting purposes. The rise of e-bikes and other electrified vehicles will likely help facilitate this mode of transportation on trails.

More commuting and tourism opportunities along Michigan trails are expected in the future.

Conclusion

Trails have become an endemic part of our culture; trails have been and will continue to be a fundamental part of our society. Regardless of what Michigan's future holds, trails will continue to provide important societal benefits like recreational access, facilitation of business and social interactions, and historical and cultural preservation. The ability for trails to link people and communities is a powerful land use tool that should not be overlooked.

Group Discussion Topics

Now looking at the future of trails in Michigan what key developments need to be made to continue to make Michigan the nation's leading trail state? How do state agencies play into that role and what role must citizens must citizens play? What is the single most important change you would make to improve our state trail system?

Many believe that multi-state trails such as the North Country Trail or the Appalachian Trail need to continue to evolve. What opportunities do you see with Michigan expanding their current trail network into other states and how would you incorporate our water resources into such a system of trails?

APPENDIX A: SELECTED STATUTES

This appendix includes links to the full text of all Michigan statutes that are referenced in the book.

Statute Title	Public Act	MCL Section	Plaintext URL to Statute PDF
Michigan Planning Enabling Act	Act 33 of 2008	125.3801 to 125.3885	https://legislature.mi.gov/documents/mcl/pdf/mcl-Act-33-of-2008.pdf
Natural Resources Trust Fund	Act 451 of 1994 Part 19	324.1901 to 324.1911	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-I-19.pdf
Michigan Conservation and Recreation Legacy Fund	Act 451 of 1994 Part 20	324.2001 to 324.2045	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-I-20.pdf
Michigan Trailways Act	Act 451 of 1994 Part 721	324.72101 to 324.72118	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-1-TRAILWAYS-721.pdf
Recreational Trespass	Act 451 of 1994 Part 731	324.73101 to 324.73111	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-1-RECREATIONAL-TRESPASS-731.pdf
Liability of Landowners	Act 451 of 1994 Part 733	324.73301 to 324.73302	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-1-RECREATIONAL-TRESPASS-733.pdf
Michigan State Waterways Commission	Act 451 of 1994 Part 781	324.78101 to 324.78119	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-4-GENERAL-781.pdf
Off-Road Recreation Vehicles	Act 451 of 1994 Part 811	324.81101 to 324.81151	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-6-OFF-ROAD-RECREATION-VEHICLES-811.pdf
Snowmobiles	Act 451 of 1994 Part 821	324.82101 to 324.82161	https://legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-III-4-6-SNOWMOBILES-821.pdf
Transportation Preservation Act of 1976	Act 295 of 1976	474.51 to 474.70	https://legislature.mi.gov/documents/mcl/pdf/mcl-Act-295-of-1976.pdf

Statute Title	Public Act	MCL Section	Plaintext URL to Statute PDF
Equine Activity Liability Act	Act 351 of 1994	691.1661 to 691.1887	https://legislature.mi.gov/documents/mcl/pdf/mcl-Act-351-of-1994.pdf

APPENDIX B: ACRONYMS AND ABBREVIATIONS

Definitions of Acronyms and Abbreviations

Acronym/ Abbreviation	Definition
ADA	Americans with Disabilities Act
BEA	United States Bureau of Economic Analysis
DEI	Diversity, equity, and inclusion
FHWA	Federal Highway Administration
E-bike	Electric bicycle
EGLE	Michigan Department of Environment, Great Lakes, and Energy
ETS	Equine Trails Subcommittee (MTAC subcommittee)
GIS	Geographic information system
GPS	Global positioning system
IBT	Iron Belle Trail
ISTEA	Intermodal Surface, Transportation Efficiency Act
LMB	League of Michigan Bicyclists
LWCF	Land and Water Conservation Fund
MCL	Michigan Compiled Laws
MDARD	Michigan Department of Agriculture and Rural Development
MDNR	Michigan Department of Natural Resources
MDOT	Michigan Department of Transportation
MHC	Michigan Horse Council
MISORVA	Michigan Snowmobile and Off-Road Vehicle Association
MMBA	Michigan Mountain Biking Association
MNRTF	Michigan Natural Resources Trust Fund
MOU	Memorandum of understanding
MSU	Michigan State University
MTA	Michigan Trailways Act
MTAC	Michigan Trails Advisory Council
MTGA	Michigan Trails and Greenways Alliance
MTRA	Michigan Trail Riders Association
NAW	Nonmotorized Advisory Workgroup (MTAC subcommittee)

NEPA	National Environmental Policy Act
NCT	North Country Trail
NCTA	North Country Trail Association
NPS	National Park Service
NREPA	Natural Resources and Environmental Protection Act
NSTA	National Trail System Act
NWT	National Water Trail
OGL	Michigan Office of the Great Lakes
OHV	Off-highway vehicle
ORV	Off-road vehicle
ORVAW	ORV Advisory Workgroup (MTAC subcommittee)
PFAS	Per- and polyfluoroalkyl substances
PRD	Michigan Department of Natural Resources Park and Recreation Division
PSC	Public Sector Consultants
QoL	Quality of life
RIF	Recreation Improvement Fund
RPGP	Recreation Passport Grant Program
RTA	Recreational Trespass Act
RTC	Rails to Trails Conservancy
RTP	Recreational Trails Program
SAFETEA-LU	Safe, Accountable, Flexible Efficient Transportation Equity Act: A Legacy for Users
SAW	Snowmobile Advisory Workgroup (MTAC subcommittee)
SCORP	Statewide Comprehensive Outdoor Recreation Plan)
SRTS	Safe Routes to School
TAP	Transportation Alternatives Program
TART	Traverse Area Recreation and Transportation Trails, Inc.
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service