

Trails Master Plan



City of Marquette, MI





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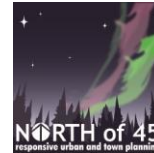
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TABLE OF CONTENTS

	<u>page</u>
1. Executive Summary	1
2. Introduction	3
2.1 History /Importance of Trail System	
2.2 Sustainable Trails for the Future	
2.3 Visions, Goals and Objectives of the Plan	
3. Public Involvement Summary	12
3.1 Public Meetings	
3.2 Stakeholder Interviews	
4. Existing Trail Conditions	18
4.1 Existing Trails and Infrastructure	
4.2 Trail Condition Summary	
5. Recommendations	24
5.1 New Trail Connections	
5.2 Trailheads	
5.3 Snowmobile/ATV Trail Development	
5.4 System-Wide Improvements	
5.5 Trails Policy	
5.6 Trail Density	
5.7 Financial Sustainability	
5.8 Trail Use during Hunting Season	
5.9 Motorized Trails	
6. Implementation Plan	35
6.1 Roles and Responsibilities	
6.2 Project Prioritization and Action Plan	
6.3 Potential Funding Sources	
6.4 Recreation Plan Amendment	

Appendix

Maps:

Heartwood Forestland Plan

Existing Trail Systems, Trail Connectors

Recommended Projects



Chapter 1

EXECUTIVE SUMMARY

Trails have become a very important asset to the City of Marquette; enhancing quality of life for residents; attracting visitors and tourism; and creating economic benefits. The Marquette trail systems have also become a major factor in attracting young professionals and families to relocate to Marquette, and that is something many communities are trying hard to accomplish.



The Trails Master Plan brought together numerous stakeholders, trail users, and City departments to plan for the future of Marquette's trail systems. This input directly shaped the planning process. A project vision statement and five major goals were developed that respond directly to the input.



The Master Plan process identified an important need for City policy development to guide decision-making related to trails. Partnerships with trail interests and groups are essential for planning, growth and on-going maintenance of the trails systems, and City policy recommendations are intended to define and strengthen these relationships.

Due to current and anticipated budget constraints, the City will require partnerships to lead and participate in the financial viability of the trail system, both improved and unimproved. The partnerships will require short and long-term financial strategies independent of local general fund resources and call upon business plans to sustain the assets.

In addition to City policy, the Trails Master Plan outlines a number of projects, capital improvements and ideas. Specific recommendations are made under the following broad categories:

- New Trail Connections
- Trailheads
- System-Wide Improvements and Enhancements
- Motorized Trails and Access Improvement Considerations

It is recognized that motorized trail use in the City represents a shift in policy and this will need to be discussed and carefully considered by a number of City boards and commissions. The City of Marquette will be preparing an updated Recreation Master Plan in 2017. A citizen survey, that is a part of the process, will include questions about motorized trails that can guide decision-making regarding this issue.

The final chapter in this Trails Master Plan deals with Implementation, and provides a listing of actions and projects, priority and possible funding opportunities.



Chapter 2

INTRODUCTION

2.1 History and Importance of Marquette's Trail System

Shared Use Pathways/Bike Paths

The City of Marquette has long been a leader in providing trails and separated bike paths, going back to the creation in the 1980's of the Holly S. Greer Shoreline bike path that follows the lakeshore from the city limits to the Presque Isle Park. Since that time, additional shared-use paved paths have been developed and have become increasingly popular. The City of Marquette currently maintains a total of 18.7 miles of Shared-Use Paths.

Much of the Holly S. Greer Shoreline Bike Path, starting where it enters the City limits from the south, serves as part of the North Country National Scenic Trail which links the Atlantic seaboard with the Lewis and Clark National Historic Trail in North Dakota. This trail segment is also part of the Governor's Iron Belle Trail, a Michigan trail initiative that links Belle Isle Park in Detroit, to Ironwood on the west end of the Upper Peninsula.

In addition to bicyclists, the shared-use path is used extensively by walkers, joggers, and inline skating enthusiasts.



Marquette Commons/ Linear Park

The opportunity to acquire the former rail corridor through downtown triggered a planning process that resulted in the plan for the Marquette Commons and a "linear park" that would include a bike path connection from the lakeshore path to McClellan Avenue. By reconfiguring existing haphazard parking between 3rd and 4th Streets, space was created for the development of a town square with adjoining shared use pathway, which was constructed in 2005. The Marquette Commons includes an ice skating plaza and a warming house building with restrooms and gathering area. The downtown Farmers Market has become the primary use for this facility in spring, summer and fall. The building provides public restrooms for downtown. With its central location, the Commons now



serves as an “urban trailhead” for the Iron Ore Heritage Trail, the City shared use paths, and the single track trails located north and south of the city. The site now includes a bicycle repair and maintenance station and an Iron Ore Heritage Trail kiosk to further promote the Commons as an urban trailhead.

2006 Citizen Recreation Survey

In January of 2006, surveys were mailed to a random sample of 2,000 households in the City of Marquette and 1,000 households in Chocolay Township. Response to the survey was better than expected and as a result, the survey sample had a 95% level of confidence with a precision of at least $\pm 3.0\%$.

When asked what recreation facilities were most important, 50% of respondents said that paved walking and biking trails were most important; 41% said that natural areas/hiking and biking trails were most important.

When asked what their need is for parks and recreation facilities, 81% of households indicated paved walking and biking trails; 75% indicated a need for natural areas/hiking and biking trails.

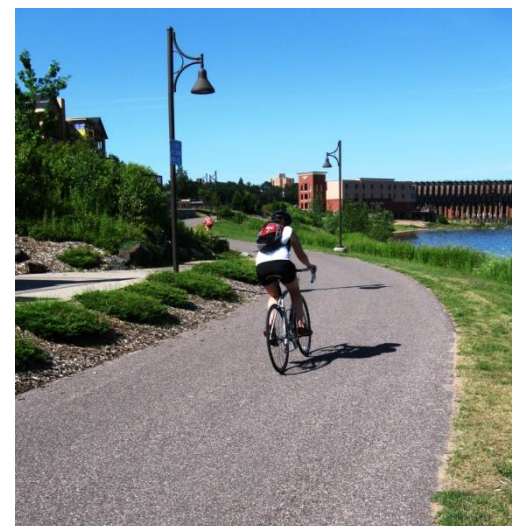
In both questions, paved trails and natural areas with trails were the most important parks and recreation needs and facilities on an extensive list of different facilities, underscoring the fact that trails are needed and valued by Marquette citizens. The survey results also were a factor in shaping city policy for future recreation development and partnerships to expand trail offerings.

Iron Ore Heritage Trail

The Iron Ore Heritage Trail is a 48 mile long Heritage Corridor that extends from the former Republic Mine site adjacent to downtown Republic, north and east through Marquette Township to the Lake Superior shoreline in downtown Marquette, where it joins the shoreline bike path and east into Chocolay Township.

Heartwood Forestland Property Acquisition

In 2005, the City of Marquette made a bold and unusual purchase of undeveloped rugged land from the Heartwood Forestland Group. This acquisition, totaling 2,385 acres of land along its south border, included property located in Sands and Marquette Townships. The land is highly suitable for hiking, mountain biking and other outdoor recreational pursuits. The acquisition is





considered a key to promote and develop these growing recreational values for the citizens of the region and for tourism development. The recreation survey results supported this acquisition.

In 2009 the City Commission established the Heartwood Forestland Ad-Hoc Committee to study the property and identify potential development areas, identify areas for conservation and identify partnerships for the development and maintenance of recreational properties. In the committee's report, they recommended approximately 930 acres for development, approximately 1,063 acres for conservation and public recreation, and approximately 250 acres for deferred development. In Feb. 2011 the Planning Commission made recommendations to refine the Ad Hoc Committee report, resulting a recommendation to hold 1258 acres in a Conservation status, 111 acres in Potential Development status, 323 acres as Future Planned Area (deferred development/subject to further planning), and 567 acres as Surplus (land outside the City limits that may be developable). And approximately 100 acres of the property in Sands Twp. was sold to the Marquette County Solid Waste Management District. The City Commission recently approved the development by staff of a plan for the disposition of all of this property.

NTN Singletrack Strategic Plan

The Noquemanon Trail Network (NTN) is an expansive non-motorized trail network in the Marquette area established in 2001, and is managed by a non-profit organization, the Noquemanon Trails Network Council, whose mission is to develop and maintain an interconnected, year round, non-motorized trail network. These trails are used for many different purposes such as mountain biking, snow biking, cross country skiing, hiking, trail running, bird watching, snowshoeing and for those who enjoy being out in nature.

In 2016, the Noquemenon Trail Network (NTN) developed a strategic plan that discusses funding and sustainability, community partnerships, and the economic impacts and benefits of the NTN trails and events. Since the establishment of the NTN, the organization has acquired many partnerships with businesses, municipalities and landowners. The NTN's trails have been acknowledged and awarded internationally with a Bronze Ride Center designation for their trail quality by the International Mountain Biking Association. The NTN is committed to maintaining and developing a nationally recognized trail system that is a draw for locals and visitors.





2.3 Sustainable Trails for the Future

Trail systems are considered sustainable if they minimize impacts to the environment, meet the needs of a variety of users, require little maintenance, and minimize user conflicts. A trail system should allow higher numbers of visitors to visit natural areas with less damage to the environment. While the preferred user travel mode may vary, the principles for designing sustainable trails are the same. Trails can provide improved fitness, community connections, create and enhance tourism and economic development opportunities.

A well implemented trail system:

- Provides reasonably direct access to desired destinations. If short-cutting the trail is faster, users will take the short cut rather than following the trail.
- Works with the surrounding topography and avoids steep grades or alignments that can channel water and focus erosion.
- Does not pass through excessively muddy or rocky areas. Trail users will avoid these areas and widen the tread or create new trails.

The City of Marquette is in an excellent position to capitalize on the benefits of trails to increase the number of residents and visitors who use the trail system. As we have learned from community input on this planning project, this is certainly occurring and use is growing. Recreational tourism has been growing in popularity as trail-oriented sports such as mountain biking, cross-country skiing, ATV riding, and birding, continue to gain popularity. Mountain biking and winter snow biking have become important additions to Marquette's tourism growth. There are many long-term benefits to communities and the environment when trail systems are sustainably designed.

Successful trail systems can have benefits to communities beyond tourism. Local residents have the opportunity to experience enjoyable and high quality trails in their own backyard. Whether walking or biking a trail, an individual can improve their health and well being by participating a few times a week. Improved health benefits both the individual and society as a whole through reduced health care costs

Community attitudes are improved through trail projects. Trail projects often build partnerships between landowners, government, and trail volunteer groups. Residents involved in working on trail projects feel more connected to their community, and as a result community cohesion and attitudes are improved.



2.4 Vision, Goals and Objectives

2.4.1 Introduction

The Vision, Goals, and Objectives of the study are principles that will guide the development and implementation of the Marquette Trails Master Plan for years to come. Goals and objectives direct the way public improvements are made, where resources are allocated, and how Marquette's priorities are determined. This plan lays out a framework for creating and expanding trails and improvements to trails in Marquette now and in the future.

A vision statement outlines the intent of the planning process. Goals help guide the City of Marquette towards fulfilling that vision. Objectives are more specific statements under each goal that define how each goal will be achieved. Objectives can be measured and allow tracking and benchmarking to demonstrate the extent of the City's progress towards achieving the goals and overall vision.

The vision, goals, objectives and policies have been based on national best practices, interviews with project stakeholders and discussions with the Parks & Recreation Advisory Board and City staff.

2.4.2 Goals & Objectives

The Marquette Trails Master Plan will be implemented through a comprehensive program of activities based on the following goals:

1. Trail Sustainability
2. Preserve and Expand the Trail Network
3. Trail Conflict Management
4. Health & Safety
5. Enforcement

Project Vision

The purpose of the Marquette Trails Master Plan is to ensure the future sustainability, continued access and maximum use of trails by all citizens



1. Trail Sustainability	
Goal: Ensure that trails remain usable and free from permanent damage so that future residents can enjoy the same or a better quality experience than today.	
Objectives	1A: Prevent trail degradation resulting from inappropriate trail use.
	1B: Form Public/Private Partnerships with local organizations and non-profits to perform trail maintenance and seek grant funding opportunities.
	1C: Decommission trails that have been rerouted and are no longer in use.
	1D: Ensure trail development partners have the financial resources for trail maintenance before approving new trail development.
	1E: Coordinate proposed new urban development with the existing trail network; support integration of existing trails with new urban development, or trail relocation and/or connection to existing trails if complete integration is not possible.
	1F: Develop a financial sustainability model which addresses long-term, on-going maintenance, use, and development of the City's improved and unimproved trail system



2. Preserve and Expand the Trail Network

Goal: Provide a network of recreational trails suitable for all varieties of trail users including: hikers, skiers, mountain bikers, snow bikers, snowmobiles, and All-Terrain Vehicle (ATV) users.

Objectives	2A: Support the development on on-street bikeways and paved paths, to expand the connectivity of the unpaved trail systems to residential and other land uses and destinations.
	2B: Develop extensions of the urban trail network which connect the Marquette urban area to nearby destinations.
	2C: Promote all season trail recreational opportunities to residents and visitors.
	2D: As volunteer efforts will continue to be mandatory for trail development and maintenance, the City should support these initiatives when possible.
	2E: Encourage and support efforts to obtain funding for trail development and maintenance costs from users, the business community and local government cooperative initiatives.
	2F: Identify missing links in an effort to create a connective trail network
	2G: Consider the designation of the existing snowmobile trail across South Marquette as an ATV trail, provided that volunteer maintenance efforts and DNR funds are available for development, maintenance, and enforcement.
	2H: Consider opportunities for the location of snowmobile trailheads that would provide limited access to business districts in the City, provided that volunteer maintenance efforts and DNR funds are available for development, maintenance and enforcement.



3. Trail Conflict Management

Goal: Minimize conflicts between different types of trail users and avoid trail degradation due to improper use.

Objectives

3A: Consider development of sufficient trail opportunities for all user groups, so that specific user groups, such as ORV users, do not use trails that are unsuited to the impacts and timing of their activity.

3B: Encourage the continued growth of trail user groups such as the NTN.

3C: Support trail partners with the development and distribution of a 'Trail User Guide' to promote maximum public knowledge of the trail system, trail uses, and to reduce user conflicts.

3D: Encourage trail management groups to install signage promoting 'rules of the trails' at trailheads and along trails.

3E: Consider dual use or seasonal use trails where appropriate.



4. Health & Safety

Goal: Reduce the risk of trail related injury and rescue through effective informational programs.

Objectives

4A: Work with trail partners to provide markers and directional signage to help trail users navigate the trail system and decrease the likelihood of them becoming lost.

4B: Require trail managers to install signage with important safety information, such as degree of difficulty and skill level required, where applicable at trailhead kiosks.

5. Enforcement

Goal: Provide effective enforcement of existing trail use restrictions.

Objectives

5A: Work with trail partners to promote peer enforcement through existing and future trail user groups to 'self-enforce' improper trail behavior that could lead to trail damage or conflicts with other users.

5B: Require trail managers to install appropriate signage that encourages proper use of trails.

5C: If motorized trails are approved, require motorized trail groups and the Michigan DNR to obtain funding for enforcement of motorized trail laws and restrictions.



Chapter 3

PUBLIC INVOLVEMENT SUMMARY

The City of Marquette used a variety of methods to ensure that City residents, non-residents, business owners, trail users and others have had an opportunity to learn about and have a voice in shaping the Trails Master Plan. These activities have included the following which are described in more detail in the following pages.

- Stakeholder interviews and meetings with trail users
- A public open house event
- Email comments
- Parks and Recreation Committee meeting
- City Commission meetings
- Public notices

3.1 Stakeholder Interviews

The consultant conducted stakeholder interviews and meetings. At the outset of the project, *North of 45* held a series of interviews and small group meetings with people and groups with a strong interest and involvement in trails planning. Over 30 people participated in these interviews, which were conducted over a two-day period on August 24-25, 2016.

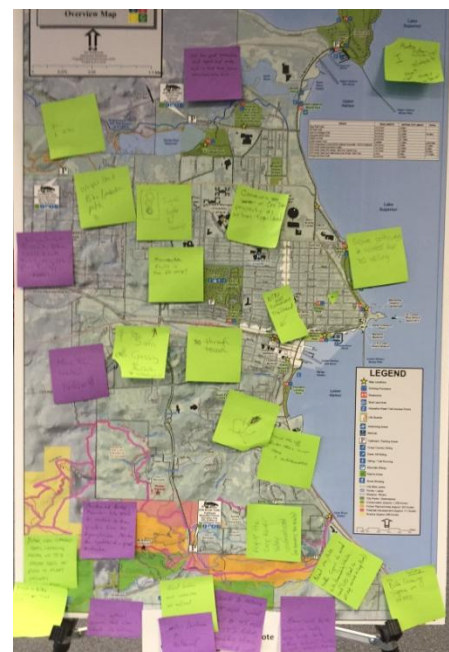
Stakeholder groups who participated in the interviews described above included:

Hiawatha Trails
Downtown Development Authority
ORV- T.E.A.M. Trail Riders Enthusiasts Alliance of Marquette
Iron Ore Heritage Trail
City of Marquette- Police Dept.





City of Marquette- Fire Dept.
 Marquette Township
 NTN-General Board
 NTN- Single Track
 MDNR: Motorized
 North Country Trail
 Travel Marquette
 NMU- Engineering & Planning
 City of Marquette-Community Development
 Local motorized sports retail businesses
 Adventure Center Arctic Cat
 Marquette Power Sports
 Local non-motorized sports retail business
 Down Wind Sports
 Lakeshore Bike
 Sports Rack
 The Flying Moose
 Revolutions
 Queen City Running Co
 Quick Stop Bike Shop
 Mqt Bikeability Committee



The primary objective of these meetings was to identify a full range of trail planning issues, concerns and ideas. In several cases, multiple members of these groups (e.g., NTN, ATV users) participated. A complete list of individuals who participated in these interviews is found in Appendix A of the Plan.

3.2 Community Open House Event

City staff and the consultant conducted a community-wide open house event on September 1, 2016 to provide opportunities for Marquette area residents to learn more about the trails planning process and help shape its outcome. Approximately 130 people attended. The Open House event provided several opportunities to comment and ask questions about the planning process, including an interactive exercise to identify



location-specific trails planning issues, needs or proposed improvement projects. Forms were available for written comments as well, a total of 75 forms were submitted with comments.

3.3 Email Comments

An email account was established for the sole purpose of receiving written comments about the Trails Plan. A total of 13 comments have been received via email during the initial public involvement phase of the planning process.

3.4 Parks and Recreation Advisory Board Meeting

The City's Parks and Recreation Advisory Board is the primary advisory group for city Parks and recreation programs. A list of PRAB members is found in the front of the Plan (see Acknowledgements page). The Board provided guidance on the Trails Master Plan.

3.5 City Commission Meetings

3.6 Public Comments Summary

The enthusiasm of trail organizers, volunteers, supporters, users, businesses, staff and community leaders is very evident by the outpouring of positive support for Marquette's trails, the Trails Master Plan and the thoughtful comments and suggestions provided. Outlined below is a summary of comments, ideas and suggestions:

Stakeholder Interviews

The single-track trails north and south of the City have become a major tourism draw, contributing significantly to the economy, in all seasons. The South Marquette trails receive significant use, no counts or estimates are available to document use.

The South Marquette trails are a reason a number of young professional families have relocated to Marquette.

Mountain biking is a growing sport, sales and rentals at area businesses is increasing.

People come to Marquette just to bike the paved trails in the City.



There is strong interest in ORV motorized trails in the Upper Peninsula. ORV ownership is growing. Many city residents own ORVs but have to travel some distance to a trailhead. Marquette currently is a barrier to cross UP ORV trail riding. TEAM (trail riders enthusiasts alliance of Marquette) would like to have the existing snowmobile trail that crosses Mount Marquette officially designated as a multi-use trail. A trailhead for ORVs could be located on private property by the Marquette Mountain ski area. They are eligible to receive funding from the DNR for maintenance of a route. This group, and ORV retailers, would also like to explore bringing ORVs into the city center, it is recognized that there are challenges to this idea.

There is interest in locating a snowmobile trailhead within the City.

South Marquette Trailhead enhancements are needed, including water, toilets, and improved safe access to the current trailhead off Division Street.

An improved safer crossing is needed near the trailhead under 553, at a minimum, better signage and a crosswalk.

The NTN would like to continue to expand trails in the South Marquette area, ultimately doubling the current mileage from 50 to 100 miles. Expansion is needed to keep the momentum of Marquette as a destination.

Safety and rescue improvements are needed to help responders locate injured or lost people. Trail mileposts with GPS coordinates are one solution. Safety and rescue personnel could also use a motorized vehicle that can negotiate the trails for rescue operations.

Written and Email Comments:

Comments were received about the south Marquette single-track trails, how much they are enjoyed and used, their contribution to Marquette's economy and quality of life, and that they should be preserved.

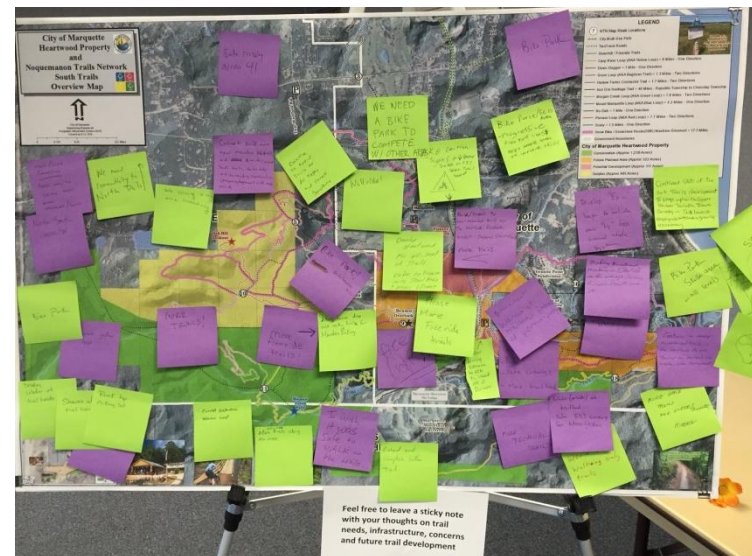
Comments were received about ORV and snowmobile access to and through the City of Marquette, and how this would also benefit the community and its economy.



Location-Specific Trails Planning Issues Map Comments

At the Community Open House Event, approximately 60 comments were made using “sticky notes” on maps provided for this purpose. The comments were requested to identify trail needs, infrastructure, concerns, and future trail development. A summary of these comments is provided below:

- A policy is needed for E-bikes
- Wright Street pedestrian bike path
- Single track connection between the north and south trails (through the Township) as well as connections to Harlow Lake and Negaunee-Ishpeming (numerous comments on connecting single track trails)
- Safer crossing(s) on McClellan at Washington and the US 41 bypass
- Make the Marquette Commons an urban trailhead
- Groom bike paths in winter for urban X-C skiing
- X-C trails in the city
- More X-C trails
- Keep the Carp River Valley undeveloped
- Bike crossing signs on 553 near the trailhead (numerous comments)
- Reduce speed limit on 553 for bikers, skiers and snowmobiles crossing the road
- Need permanent water and restrooms at the trailhead (numerous comments)
- Showers at trailhead
- Develop more sustainable, hand-built trails, with options for more technical trails with features
- Finish/complete an ORV trail through South Marquette
- More mountain bike trails (numerous comments)
- Need a “bike park” at the South Marquette Trails (several comments)
- More free ride trails (3 comments)
- Safer entrance to South Marquette Trailhead (several comments)
- Develop an “epic loop” around the entire system





- Continue “state of the art” trails development to keep up with Copper Harbor, Duluth, and Brown County. Trails lead to happiness and a growing economy.
- More kid trails, more easy trails
- I wish it was safe to walk on the trails
- Extend and complete the Yellow trail (several comments)
- Directional markings on the paved bike path would help people with trail etiquette and proper use.



Chapter 4

EXISTING TRAIL CONDITIONS

This chapter will address the various types of trail users and provide an inventory of existing trails in the City of Marquette.

4.1 Trail Users and Classification in Marquette

There are many different types of anticipated trail users within the Marquette trail network. Trails attract all types of users including the different types addressed below. Trail width, vertical clearance, surface type and trailhead amenities should be designed to accommodate the expected range of users.

Hikers/Walkers

Hikers are the most flexible trail users, requiring the least specific trail design (also in this group are joggers/runners, bird watchers and hunters). Hikers are the most versatile of users and are able to travel over trails that are extremely steep or narrow.

Most casual hikers generally prefer trails that offer wide paths of travel, moderate vertical clearances, minimal grades, and non-slip walking surfaces such as pavement, crushed stone, or compacted earth. This user group prefers trails with scenic opportunities that provide visual interest with varied terrain.

Bicyclists

The needs of trail bicyclists vary based on their experience and familiarity of the trail network. Occasional or casual trail bikers might prefer a wide trail that allows passing and side-by-side riding. Many prefer smooth, compact surfaces or paved surfaces with gentle to minimal slopes.

Experienced and more aggressive trail bikers enjoy more challenging trail experiences including the thrill of a narrow, single track trail, just wide enough to allow passage of one bicycle. These bikers may also seek rougher, more steep and challenging surfaces to ride on. Most trails that hikers prefer are also suitable for bicyclists.





Recently, winter biking has become popular and is rapidly growing as a winter sport, and as a means of commuting and getting around town. Winter biking is done on traditional bicycles equipped with special tires and equipment, mountain bikes, and snow bikes, which are sometimes referred to as fat bikes because of their oversized tires that float on snow. The NTN has pioneered snow bike trail riding and grooming trails specifically for this winter sport.

Cross Country Skiers

There are two types of cross country skiing; classic or traditional, and skate-skiing. Classic skiers can typically ski wherever snow exists, but most avoid steep terrain. Skate skiers typically require groomed trails.

Trails groomed specifically for cross-country skiing typically address both disciplines, a wide compacted surface with a corrugated surface typically six to twelve feet wide. Cross country skiers typically look for loop trails of four to six miles in distance. The most common locations for cross country skiing in Marquette are the Noquemanon Trail Network (NTN) Forestville Trails, Little Presque Isle Recreation area north of Marquette, the north Marquette Trails, Blueberry Ridge Trails, and the Fit-Strip and Presque Isle Park in the City itself.

Snowshoers

Snowshoers typically prefer to walk on snow with at least an 8" base. Snowshoers often travel off trail for a more primitive experience however they also use existing trails to gain access to the backcountry. Snowshoers prefer loop trails of two to eight miles in distance. Snowshoes perform poorly on ice and steep terrain. Therefore, most snowshoers will prefer to walk along trails that have minimal changes in grade or go off-trail to maintain level elevations and avoid ice.

Snowmobilers

While snowmobiles technically do not require actual trails to operate, many snowmobilers prefer to operate along trails for orientation and familiarity. It is preferable for snowmobiles to operate along trails, minimizing the potential damage to vegetation with thin snow cover.

Snowmobile trails consist of heavily compacted snow and are typically 10'-15' in width. Snowmobiles are currently prohibited from use within the City limits, with the exception of the Mount Marquette trail in South Marquette and the Heartwood Forestland, which is part of a DNR-funded trail route.

All Terrain Vehicles (ATV)

While this user category can include snowmobiles and full sized four-wheel drive vehicles, for the purpose of this Master Plan, this category is most often applied to All-Terrain Vehicles (ATVs), three wheelers, and motorcycles not licensed for use upon the highways.



The 4-wheel version of the ATV is the predominant off-road vehicle used and sales of these vehicles have increased dramatically in recent years.

ATV technology has advanced dramatically, with higher clearances, better suspension, increased horsepower, wider track, more drive wheels and more aggressive high pressure tires. ATV models now also vary by purpose with utility based vehicles designed to carry heavy loads and reach backcountry locations. Performance models have also evolved and can specialize in climbing steep slopes and traveling at high-speed. This performance evolution has created a greater capability to cause environmental damage.

Due to their contribution to erosion and effect on plant life, trails supporting ATV use can most benefit from maintenance and rehabilitation features that help the trail maintain its longevity, while minimizing impacts on surrounding natural resources.

Currently, ATVs are prohibited from use within the Marquette City limits.

4.2 Existing Trails and Infrastructure

Marquette and the surrounding area offer many opportunities and options for different trail experiences. The following facilities are those located within the City or can be accessed from within the City limits. Maps are provided in the Appendix showing the various trails described here.

Presque Isle Park

Presque Isle Park offers 3.5 and 1.5 kilometer cross-country ski, snowshoe and hiking trails.

Fit-Strip Cross-Country Ski Trail

Located on West Ridge Street at the southwest corner of the Park Cemetery, this site contains 1.7 and 1 kilometer cross-country ski trails which are very popular. Grooming of the ski trails is provided by the Noquemanon Trail Network, through a partnership between the Noquemanon Trail Network and the City. The trails are lighted during the winter months for skiing at night. This trail also serves as a jogging trail in the summer and includes developed exercise stations. A parking area is also provided.

Shared-use Paths

Shared-use paths have become increasingly popular. The City of Marquette currently maintains a total of 18.7 miles of Shared-Use Paths. Much of the Holly S. Greer Shoreline Bike Path, starting where it enters the City limits from the south, serves as part of the North Country National Scenic Trail which links the Atlantic seaboard with the Lewis and Clark National



Historic Trail in North Dakota, and the State of Michigan's Iron Belle Trail. In addition to bicyclists, the shared-use path is used extensively by walkers, joggers, and inline skating enthusiasts.

The current 6 year Capital Improvements Plan calls for the segment between Washington to Hawley Streets to be repaved. The upcoming Recreation Plan update will address future areas where the path may be expanded.

Iron Ore Heritage Trail

The Iron Ore Heritage Trail is a 48 mile long Heritage Corridor that extends from the former Republic Mine site adjacent to downtown Republic, north and east through Marquette Township to the Lake Superior shoreline in downtown Marquette, where it continues generally along the shoreline and east into Chocolay Charter Township. The multi-use path follows contemporary rail corridors as well as long abandoned rail grades dating from the earliest days of mining in the Upper Peninsula. Construction of the eleven mile segment from Jackson Mine Park in Negaunee east to Baraga Avenue in the City of Marquette resulted in approximately 28 miles of non-motorized multi-use path accessible to Marquette's citizens.

North Trails Network*

The North Marquette, or BLP, trails were begun as a partnership between the Marquette Board of Light and Power, the NTN, and the Superior Watershed Partnership as part of the requirements for the BLP's planned refilling of the Tourist Park Reservoir. The trails, whose construction began in 2013, are clustered around the Tourist Park Reservoir and the lower Dead River. The machine-built trails replaced a handful of very rudimentary legacy trails that had been in existence for decades, primarily as a result of fishermen accessing the river and reservoir.

The focus of the BLP trails is water, which is almost always visible while on these trails. Trail users view the placid waters of 2 small reservoirs, a calm river and a river oxbow, as well as the whitewater of several waterfalls, a short section of river rapids, and 2 river gorge sections. The trail experience is enhanced by several waterside rest areas where benches are available for relaxation and enjoying the view. There is even a small trailside swimming hole.



*from the NTN Strategic Plan, 2016



The North trails are served by 2 trailheads, the NTN Tourist Park Trailhead on Hwy 550 and the BLP Trailhead on Wright St. adjacent to the BLP office. These trailheads have parking for up to 20 cars, kiosks, and dog waste stations. The park facilities of Marquette's Tourist Park are nearby the 550 trailhead, and additional amenities are planned at the BLP trailhead.

In 2014 the North Trail system was expanded with an extension of the Collinsville Trail onto property owned by Longyear Realty. This expansion is another step in building a connection between the North and South Trail systems. Additional expansion is planned for 2016 onto adjacent property owned by the Blue Heron Condominium Community and Northern Michigan University. These extensions will be steps toward connecting the North Trails to the NTN's Forestville Nordic Ski trail system and the Harlow Lake DNR trail system. Future trail development to complete the connections is anticipated pending landowner agreements.



South Trails Network*

The Marquette South Trails have been around for as long as anyone can remember. Starting out as game trails, residents of the Shiras Hills subdivision used the trails for riding dirt bikes and ATVs. Mountain bikers began to use the trails in the late 1980's, and by the mid-90s mountain bikers far outnumbered motorized users. The late 90s saw a rapid expansion of the trails by a number of unauthorized trail builders.

In 2006, the City of Marquette and NTN entered into an agreement for the NTN to maintain, manage, and sign the South Trails. Currently, the center of the South Trails system is the 553 Trailhead.

From the 553 Trailhead, trails users can access five trail loops: Blue (Mount Marquette Loop), Red (Pioneer Loop), Green (Morgan Creek Loop), Yellow (Carp River Loop) and Grom (beginner loop). Additionally, trail users can use the Black Trail (Harlow Farms Connector) to access the Iron Ore Heritage Trail.

Accessible via several Trail Access Points, the South Trails navigate some the most beautiful landscapes and terrain in the area, with numerous overlooks, water crossings, and rock outcroppings. The South Trails contain over 85 wooden bridges.

*from the NTN Strategic Plan, 2016



The South Trails 553 Trailhead consists of a pavilion with changing rooms and picnic tables, a skills park, and parking for 50 vehicles.

The following table provides more information on the trails systems and trail mileage.

City of Marquette Trails Inventory			
Trails	Trail Width	Within City Limits	Total
Bog Walk Trails	2 to 4 Feet	.5 Miles	
Fit Strip Trails	6 to 8 Feet	2.5 Miles	
Iron Ore Heritage Trail (Iron Belle, NCT)	6 to 8 Feet	5.2 Miles	48 Miles
Marquette BMX Track	6 to 8 Feet	.25 Miles	
Multi Use Path (Iron Belle, NCT)	6 to 8 Feet	18.7 Miles	
North Country Trail	Variable	7.5 Miles	4,600 Miles
NTN Noquemanon Trail (CR550 Trailhead /Forestville / CR510 Trailhead)	6 to 8 Feet	.5 Miles	31 Miles
NTN North Trails (Dead River Trails)	1 to 2 Feet	5.5 Miles	9 Miles
NTN South Trails (City of Mqt / Mqt Twp / Sands Twp)	1 to 2 Feet	23 Miles	40 Miles
NTN South Trails Snow Bike Route (City of Mqt / Mqt Twp)	3 Feet	8 Miles	17.5 Miles
Presque Isle Park Trails	6 to 8 Feet	3.8 Miles	
Heartwood Forestland Snowmobile Trail	10 Feet	1.5 Miles	4.6 miles
IOHT motorized (west of Wilson St. to city limits)	10 Feet	.3 Miles	.3 miles



Chapter 5

RECOMMENDATIONS

This Chapter addresses a number of improvements and enhancements to the Marquette Trails Systems, as well as policy recommendations to guide City decision making in the future. These recommendations are based upon ideas, comments and suggestions provided by stakeholders, community members and city staff.

5.1 New Trail Connections

Connect Urban Multi-Use Pathways

The City of Marquette Multi-use Pathway is overall, an excellent system for getting around the City whether for fun and recreation, or as a means for work commutes and accessing various parts of the City. There are several “gaps” to be filled that would improve the overall system as well as better connect the Multi-use Pathways to mountain biking opportunities.



McClellan, between Washington and US 41 bypass

Currently bike/pedestrian paths are located on the east side of McClellan between Washington Street and Baraga, then on the west side of McClellan between Baraga and the US 41 bypass. Bike/pedestrian facilities should be located on both sides of McClellan. MDOT is proposing a intersection signaling project at the US 41 bypass in 2018 to improve the safety of crossing US 41. The location of the new hospital nearby and proposed improvements to the Baraga Avenue/McClellan intersection could include these facilities.

7th St from the IOHT to US41

The new hospital location will involve extensive transportation improvements on 7th Street between Spring Street and the US 41 bypass, where a new roundabout will be constructed in 2017. Making a strong connection between the Iron Ore Heritage Trail/Linear Park and the Multi-use Pathway along 7th Street/Grove Street will improve access to the McClellan Avenue/M553 pathways and the South Trails.



Sugarloaf Avenue, between Tourist Park and Hawley Street

A short gap in the Multi-use Trail exists from the entrance to Tourist Park to Hawley Street, to allow safer access to the NTN North Trails.

Crossing the US 41 Bypass

The US 41 bypass has long been noted as a barrier for pedestrians and bicycles, and was identified in public involvement phase of this project as a constraint to accessing the South Trails for much of the City.

McClellan Avenue/M553

MDOT is proposing a intersection signaling project at the US 41 bypass in 2018 to improve the safety of crossing US 41.

Grove Street

A new roundabout will be constructed in 2017 at Grove Street as part of extensive transportation improvements for the new hospital. The City of Marquette, through participation in the design process, should ensure this project will improve pedestrian/bicycle access across the US 41 bypass.



Single track connection between the North and South Trails

A single track connection between the North and South Trails is desired by the NTN and trail users, however, this is only possible outside the Marquette city limits, and will require a separated grade crossing under US 41 in Marquette Township. If requested, the City of Marquette should consider a letter of support for funding applications to achieve this goal.

NMU to North Trails

Northern Michigan University is considering the development of a direct trail connection to the North Trails from campus. The City of Marquette should consider coordinating this effort.



5.2 Trailheads

Designate the Downtown Marquette Commons as a Primary Bicycle Trailhead

The Marquette Commons provides the perfect location and facility to serve as a primary trailhead for all trails. The Commons provides restroom, a gathering area, bike racks and a bike repair stand. It is located near a number of lodging facilities, which already provide parking for guests, reducing the need and demand for parking vehicles at the site. Downtown Marquette also offers a number of restaurants, brewpubs, bars, shops and services that would benefit from increased traffic from visitors and residents.

M553 Trailhead Improvements

The South Trails Trailhead located off M553 receives significant use. The NTN Singletrack Strategic Plan suggests a number of improvements for the M553 Trailhead to enhance user experience and contribute to this recreational attraction.

Parking Lot Improvements

Relocating the parking lot entrance from M553 to Division Street would improve safety and traffic flow. Site lighting and better signage would be additional amenities to consider.

Restrooms

Restrooms with running water are desired, however, the site is remote from water and sewer service and would be a costly undertaking, at least until City utilities are extended to that area to accommodate additional development. Depending on timing of other future development, a well and septic system could be constructed.

Bike wash station

Storage Building

Secure storage for equipment and staging of winter trail grooming operations in the vicinity of the 553 trailhead

100 year flood plain bridges over Carp River (2)

Improvement of Benson Grade access road, including possible paving





ATV Trailhead at Marquette Mountain

The Trail Riders Enthusiasts Alliance Of Marquette (TEAM) has expressed a desire to open the designated snowmobile route across the south part of the Heartwood Forestland property to DNR designated ATV use under their sponsorship, with the approval of the City of Marquette. This proposal will establish an ATV trailhead with parking for vehicles and trailers on private property at the Marquette Mountain Ski Area.

5.3 Snowmobile/ATV Trail Development

Representatives of several snowmobile and ATV groups and related business interests expressed a need for and benefits of providing access to the City of Marquette for motorized recreational use. Current city policy has not allowed any motorized recreational uses with the exception of the snowmobile trail across south Marquette and access to the Holiday Inn. There are many city residents who own snowmobiles and ATVs, and motorized trail users can positively impact the area's economy. It is recommended that the City meet with motorized trail representations to discuss and consider opportunities to provide additional access for motorized trail use, trail sponsorship (club, DNR, etc.), insurance/liability concerns and other issues, as discussed below. Specific proposals could be included in a future community recreation survey to measure community attitudes and desires for additional motorized trail access in the City. Based upon the results of this attitude survey, meetings could be coordinated to amend policy and establish operation, maintenance and funding for motorized trail access.



TrailATV Trail across the Heartwood Forestland Property

The Trail Riders Enthusiasts Alliance Of Marquette (TEAM) has expressed a desire to open the designated snowmobile route across the south part of the Heartwood Forestland property to DNR designated ATV use under their sponsorship, with the approval of the City of Marquette. This proposal would establish an ATV trailhead with parking for vehicles and trailers on private property at the Marquette Mountain Ski Area.

Snowmobile Access to McClellan/M553 Business District

The Iron Ore Heritage Trail has been proposed as a route for snowmobiles to access the business district east of the Holiday Inn (the Holiday Inn is currently accessible to snowmobiles). This proposal must be approved by the Iron Ore Heritage Trail Authority and fully assure the safety of pedestrians and non-motorized traffic.



5.4 System Wide Improvements

Signage/Wayfinding

A uniform, system-wide signage, mapping and wayfinding system would help trail users navigate the City's multi-use trails and find their way to the NTN single track trails.

Safety Improvements

The following improvements are recommended to alleviate safety concerns and issues:

Milepost markers

Locating injured or lost bikers on remote single-track trails has been a problem for Public Safety and Rescue personnel. A system-wide milepost identification system that would enable distressed bikers to provide a GPS coordinate or milepost location would greatly aid rescue personnel.

Road crossing at South Trails Trailhead

With trails located on both sides of M553, an identified and signed crossing near the trailhead would greatly improve safety for bikers and motorists. The NTN Strategic Plan suggests an overpass or bridge to accomplish this. A separated grade underpass may be an ideal solution, as these are easier to make the “seamless connections” that are needed to get people to use it. Experience with other bridges or tunnels demonstrate that connections must be direct or people will choose to just cross the road instead of going out of their way. Both of these solutions are expensive to construct. An at-grade crosswalk with signage and flashing light may be the most cost effective solution.



A railing cut and warning light for a Hwy 553 crossing south of Marquette Mountain in Sands Township may be necessary to accommodate trail expansion in the south part of the Heartwood Forestland property.

The City of Marquette should begin a dialogue with MDOT to consider options for improving this crossing.



5.5 Trails Policy

This section of the Trails Master Plan is intended to guide future decision-making and policy related to trails.

New Trail Development

Currently, trail development by the Noquemanon Trail Network (NTN) on the City-owned Heartwood Forestland property is governed by an agreement dated October 30, 2006, that outlines specific responsibilities and permits the NTN to develop a non-motorized trail system on the property. The agreement addresses trail width limitations, timber harvesting, maintenance, drainage, restoration, insurance requirements, liability and indemnification. The agreement requires the filing of a Safety Plan by NTN and that the safety plan is posted at trailheads.

The agreement also requires the trail system to be designed, with the concurrence of city staff, to provide a recreational trail experience for varied levels of skill.

The agreement also states the trail system will be incorporated into the City of Marquette Recreation Master Plan and that the City will assist the NTN to secure funding for various projects included in the Master Plan.

In the ten years since this agreement was executed, the NTN has developed 40 miles of trails on Heartwood Forestland property, 23 of those miles are within the city limits, according to the Table found in Chapter 4, page23.

The City of Marquette sold bonds and acquired the Heartwood Forestland property for both future development and recreational use. Annual bond payments of \$453,450 are being paid on this acquisition by the City. The City has dedicated one mil towards payment of the bonds. The Planning Commission has identified lands suitable for development and is currently discussing and developing a process to sell identified properties in order to recover some of the acquisition cost.

Recently, the City of Marquette halted further NTN trail development due to concerns of the impacts of trail density and how that will affect future development on those lands designated for future sale. The City is also concerned about the financial sustainability and on-going maintenance of the trail system.



The City of Marquette fully understands the benefits of the South Trails to the community in terms of quality of life for residents, tourism and economic impacts, and how the trails have become a “signature recreation facility” for the overall community. However, before the halt on new trail is lifted, the Planning Commission should complete its review of lands identified for future development and define the procedure for putting this land on the market. Trail easements, licenses, and/or a plan for relocation where necessary should be discussed.



New trail development in areas identified as Conservation in the Ad-Hoc Committee Report on the Heartwood Forestland property should be carefully designed for low trail density, follow the Riparian Buffer requirements of that study, and meet the International Mountain Biking Association (IMBA) guidelines for Sustainable Trail Design (as summarized in the NTN Singletrack Strategic Plan).

City staff should meet with NTN and other stakeholders to discuss and develop a strategy for trail rerouting, funding and maintenance sustainability.

E-bikes

E-Bikes, or electrically powered and assisted bicycles are a fairly recent entry into the bicycle revolution but are rapidly gaining popularity and sales are projected to hit 152,000 this year in North America, according to Navigant Research, a market research firm. According to a recent article in the Minneapolis StarTribune, “their arrival has been aided by a nationwide push from the bicycling industry to change laws and influence lawmakers, some of whom regard e-bikes as motorcycles not suitable for bike paths. The arrival of more e-bikes on local bike routes and paths, meanwhile, has some bicycle purists pushing back against the unwelcome intruder”.

According to the same article, the Minnesota Department of Natural Resources doesn't allow the use of e-bikes on its non-motorized trails if the electric motor can push the rider faster than 20 miles an hour.

And it is uncertain if higher-powered electric versions could damage trails. The majority of e-bike sales are in commuter style bikes, and in that category, the e-bike has had much less resistance from traditionalists. The e-bike is not likely to appeal to someone who rides for exercise. In addition to commuters, they are popular with older persons who may not have the fitness level to ride without the electric assist motor but still enjoy getting outside and biking.

In Michigan, motorized bicycles are considered to be mopeds. They are defined as having the following:

- Has an engine that is no bigger than **50 CC**, and produces no more than **2 brake horsepower**.



- Is unable to propel itself **30 MPH** or more on level ground.
- Has an automatic transmission.

In order to ride a moped in Michigan, it must first be registered. Once registered, you the rider have a valid driver license or moped license to drive it on public roads, and must be at least 15 years old. While riding a moped or motorized bike in Michigan, you must obey the following traffic regulations:

- Cannot be driven on freeways, or on sidewalks or bicycle paths.
- Cannot be driven side by side with other mopeds, or between lanes in traffic.
- Cannot be driven with passengers.
- Cannot carry any package that would prevent keeping both hands on the handlebars at all times.
- Must be driven as close to the **right side** of the road as practical.
- Drivers under 19 years old must always wear an approved helmet while riding.

Michigan law is clear about riding an e-bike (moped) on public streets, roads, and bicycle paths. It is uncertain how this law applies to off-road trail systems such as the North and South Trails.

It seems to be the current thinking of bicycle enthusiasts, trail promoters and managers that e-bikes have a place but need to be managed and monitored to ensure safety. One concern on using e-bikes on more remote trails is what can happen when an e-bike rider exceeds the bicycle's battery limitations, and require assistance and/or rescue.

The NTN, during stakeholder meetings, indicated e-bikes should be permitted if they meet the 20 mph maximum speed limitation.

A policy is needed to address the use of e-bikes on the single-track trails. The 20 mph speed capacity limitation and no throttle seems to work well in other places and may be considered for implementation. Should Michigan law be changed to accommodate the growing popularity of e-bikes, a policy will have to be developed to address their use on the multi-use paths as well.

Dogs

Unleashed dogs, dog fights and dog poop were identified as a major source of trail conflicts by stakeholders, the Marquette Police Department, as well as in the NTN Single-track Strategic Plan. The NTN trailheads do have dog poop bags for walkers, and while most trail users clean up after their pets, some do not. State law requires dogs to be under control and on leash except where allowed specifically, such as off-leash areas, dog parks and "linear dog parks"/trails, and for hunting purposes. This is a difficult law for the Marquette police to enforce on the isolated trails.



The NTN Single-track Strategic Plan suggests creating a separate trail as a linear dog park for dogs and their owners to alleviate some of these issues. Signage and education can help alleviate the few problems being experienced.

5.6 Trail density

Trail density refers to the length of trails (percentage of land) that is being used for trails within in a defined area, typically a square mile. Trail density discussions are usually about defining when an area is at its capacity of trail development in terms of user experience and environmental impacts.

According to the NTN Single-Track Strategic Plan, the current NTN system has a trail density of 7.6%. Compared with the Copper Harbor (3.5%) and Chequamegon (6.6%) trail systems, which may be considered competitors to Marquette, the NTN trail density does not seem out of line. It should be noted, however, that the NTN trail density includes all of their trails; a glance at the trail map will show that some areas of the South Trails may have a much higher density.

In a discussion with Lori Hauswirth, Director of the Copper Harbor Trails Club and Associate Region Director of the IMBA, the right trail density is more a matter of quality, diversity, maintenance and buffers, rather than attempting to squeeze as many trails miles as possible into a square mile. Copper Harbor has achieved an “IMBA Silver” rating with approximately 35 miles of trails. According to Ms. Hauswirth, the Copper Harbor Trails Club is most concerned with quality, diversity and maintenance, and is using sustainable trail design practices to reduce and eliminate bridges to reduce maintenance costs.

The City of Marquette and the NTN should monitor trail density to avoid overcrowding. We recommend that counters be installed by the City’s trail partners in order to determine how many people are actually riding the trails. The City should require annual reporting and the submission of an annual work plan by the NTN so that trail density issues can be discussed by staff and brought to the Marquette Parks and Recreation Advisory Board.

5.7 Financial Sustainability

The development of the single track trail system has been a great accomplishment that has required a tremendous effort by the NTN, its membership, business partnerships, volunteers, and cooperating landowners, including the City of Marquette. Thus far, NTN memberships,



business partnerships and special events have funded the growth and maintenance of the single-track trails systems. According to the NTN, this revenue model is stable; however, both the NTN and City have concerns about future funding for the trail systems. Can the current model be sustained, and can it support the growth of trails envisioned by NTN leaders?

Along with submission of an annual work plan, it is recommended that the City require submission of a financial plan demonstrating the work plan is financially sustainable.

While the City of Marquette has indicated it will assist the NTN with applying for grants for long-term improvements to the trail system, given the current financial constraints that include rising costs and falling revenues, City financial support for recreation grants for trails is not certain, and the City's other recreational facilities also have needs to be considered for grant support.

The City has discussed plans to sell portions of the Heartwood Forestland Property to support the expenditure made to acquire it. Certainly, some trails and trail segments will be impacted by land sales, although it is possible new development can be worked around important trail segments, trails can be re-routed, and development and the trails can co-exist, and benefit each other.

The City of Marquette also is faced with managing an overall recreation system, some of which is regional in use (Lakeview Arena, ball fields, soccer fields, etc), but has an inequitable recreation funding ratio compared to the surrounding townships. For example the recreational expenses incurred by the City of Marquette and Marquette and Chocolay Townships from 2009-2013 ranged as follows:

2009-13 Recreation Expenditures	2013 \$ Per Capita for Recreation
City of Marquette \$1.37M - \$1.46M	\$64.41
Marquette Township \$6,667 - \$27,529	\$7.05
Chocolay Township \$72,067 - \$102,793	\$13.74

The recent **Multi-Jurisdictional Recreational Authority Feasibility Study** evaluated the potential for the creation of a Recreation Authority that would manage regional recreational assets and provide a more equitable funding solution to the delivery of recreational facilities and services in the Marquette area. This model has already been implemented previously in Marquette County with the Iron Ore Heritage Trail Authority. The study recommended implementing a recreation authority for the trail systems, which it described as “low hanging fruit”, a recommendation based on community input at one meeting. Efforts to move forward on this recommendation have stalled, as the City believed more than the trail system should be considered for the creation of a Recreation Authority.



It is recommended that this study should be reconsidered. The Multi-Jurisdictional Ad-Hoc Committee should be reconvened to re-open the issues of recreation funding. If a decision is made to pursue only the Heartwood Forestland Property at this time, it should not preclude the potential expansion of scope to involve other recreation facilities.

Efforts to document trail use should be instituted. Trail user counters and other methods, such as counting cars with bikes in hotel parking lots, should be used to determine trail use and to further document economic impacts. This information will be very important for garnering financial and political support from grant agencies, the business community and local governments.

5.8 Trail Use during Hunting Season

While hunting and the discharge of firearms is not legal within the Marquette City limits, portions of the Heartwood Forestland property and South Trails system are located in Marquette Township and Sands Township. In order to accommodate multiple uses of the Heartwood Forestland Property, and for the safety of trail users, it is recommended that all trails be closed outside the City limits during the firearm deer season, November 15-December 1.

5.9 Motorized Trails

City staff should meet annually with motorized trails groups to discuss work plans, financial feasibility and sustainability, trail density and trail issues.



Chapter 6

IMPLEMENTATION AND ACTION PLAN

A number of important recommendations, projects and policy initiatives have been identified in Chapter 5. This Chapter will provide general direction for implementation of the Trails Master Plan.

6.1 Roles, Responsibilities, and Priorities

The City of Marquette has a key role in the implementation of this Trails Master Plan, as landowners of the Heartwood Forestland Property, and as stewards of recreation facilities that serve residents, non-residents and visitors to the community. The City is also eligible for recreation grant funding programs. With the trails system, the City must rely on partnerships with other groups to implement the plan.

Policy Development

The NTN is a key partner with the City of Marquette. The City should meet with the NTN leaders as soon as possible to begin to redefine those policies as recommended in this Plan, specifically in regard to future trail expansion, funding, trail use conflicts, e-bikes, safety/milepost identification, and desired capital improvements.

Motorized trail proponents are also potential partners. Introducing the possibilities of motorized trails will require discussion and action by the several City boards and commissions, including the City Commission. If the 2017 citizen recreation survey previously discussed shows a need for motorized trails, City staff should meet with motorized groups to identify their needs, feasibility, the availability of on-going funding for trail development and maintenance, and enforcement issues, prior to bringing concrete proposals to City leadership.

The table below identifies policy development needs and responsibilities for the policies identified in this Trails Master Plan.

Trails Master Plan Policy Development

Policy Recommendation	Responsibility
New Trail Development (non-motorized)	PRAB, NTN, City Staff
New Trail Development (motorized)	PRAB, motorized partners, City Commission, City staff
E-bikes	PRAB, city staff, city police department
Dogs	PRAB, NTN, city staff, city police department



Capital Improvement Projects

The table below identifies projects, responsibility, and funding opportunities for the various capital improvements outlined in the Master Plan. The costs of projects are all unknown at this time. Priority of capital improvement projects will be determined during the City Recreation Master Plan process.

Trails Master Plan Capital Improvements

Project	Responsibility	Cost/budget	Funding Source
Connect Multi-Use Pathways <ul style="list-style-type: none"> • McClellan, between Washington and US 41 • 7th St from the IOHT to US41 • Sugarloaf Avenue, between Tourist Park and Hawley St. 	City of Marquette	Unknown	City/ MDOT -TAP
Crossing the US 41 Bypass	MDOT/City of Marquette	Unknown	MDOT-TAP
Designate the Downtown Marquette Commons as a Primary Bicycle Trailhead	City of Marquette/DDA/NTN/IOHT	None	NTN/City/DDA
Signage/Wayfinding	City of Marquette	Unknown	City/MNRTP/MDOT RTP
Milepost markers	NTN/City	Unknown	NTN/City/DNR Passport
Road crossing at South Trails Trailhead	NTN/City/MDOT	Unknown	City/MDOT
ATV Trail across the Heartwood Forestland Property	TEAM/MI DNR w/City Approval	Unknown	TEAM/MI DNR
M553 Trailhead Improvements	NTN	Unknown	NTN//City/MI DNR
ATV Trailhead at Marquette Mountain	TEAM/Private Property Owner w/City Approval	Unknown	TEAM/MI DNR
NMU to North Trails	NMU	Unknown	NMU



6.2 Potential Funding Sources and Programs

The following list identifies possible sources of funding for trails and trail systems improvements.

Natural Resources Trust Fund MI DNR

Land and Water Conservation Fund MI DNR

Recreation Passport Fund MI DNR

MDOT Transportation Alternatives Program (TAP)

MDOT Recreational Trails Program (RTP)

Corporate and Foundation Grants

6.3 Recreation Master Plan Amendment

The City of Marquette has budgeted funds to prepare a new City Recreation Master Plan in 2017. That planning process will include a new citizen attitude and needs survey and updated recreation facility inventory. The Trails Master Plan includes useful information that can be cited and incorporated into the overall Recreation Master Plan, contribute to the development of the recreation survey, and help shape recreation policy.

