

MASTER TRAIL PLAN

BECKER COUNTY MINNESOTA



DRAFT: OCTOBER 15, 2019



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WITH FUNDING ASSISTANCE FROM:



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SECTION 1: PROJECT INTRODUCTION

Becker County is located in west central Minnesota. The main population center and county seat are in Detroit Lakes. There are several other small cities/communities that range from agriculture communities to lake/recreation/resort communities. In addition, a portion of the White Earth Reservation extends into the northern third of Becker County. A large portion of Becker County's land is occupied by State Forests and National Wildlife Refuges. The three main State Forests are, White Earth, Smokey Hills, and Two Inlets.

Tamarac National Wildlife Refuge is centrally located in Becker County.

The aim of this master plan is to expand recreation, transportation, and economic development opportunities that trails of all types can provide to Becker County. The development of various trail types serving both recreation and transportation needs will support continued economic development in the county and improve quality of life. Trail development as proposed in this master

plan will be one attribute that may draw new residents and visitors to the county.

PROJECT PURPOSE AND INTENT

The intent of this project is to establish a Master Trail Plan within Becker County that will provide a long-term vision and implementation process for the establishment of various trail types. The Master Trail Plan will serve as a high-level planning and implementation policy tool that will inform and guide county staff, elected officials, county residents, and local recreation clubs to make logical and efficient use of resources. It will also be a valuable reference tool that will allow the county to identify cost effective implementation opportunities that take advantage of other construction projects. Furthermore, having a master plan will increase opportunities for the county and local recreation clubs to apply for and secure grant funding.



Implementation Timeline

The trails proposed in this Master Trail Plan will require a long-term timeframe to see the visionary plan come to fruition. An implementation timeline for the Master Trail Plan does not exist. Implementation will occur as funding becomes available. Implementation will likely result from receipt of grant funds, roadway resurfacing, reconstruction projects, or recreation club initiated projects.

Types of Trails Addressed in Plan

The Master Trail Plan will address a wide variety of trails to meet the needs of different county trail users. Trails can take a variety of forms and can serve either motorized or non-motorized recreation or transportation activities. The types of trails addressed in this Master Trail Plan include:

- » Bicycle and Pedestrian Facilities
- » Mountain Bike Trails
- » Equestrian Trails
- » Cross Country Ski Trails
- » Water Trails

- » Roadway Recreation Corridors
- » Birding Trail
- » Snowmobile Trails
- » All-Terrain Vehicles (ATVs)

PROJECT VISION AND GOALS

Recreation Vision

The following recreation vision included in the Becker County Recreational Plan that was approved in 2011 provides guidance to the Trail Master Plan. *To ensure the long-term recreational sustainability of Becker County administered lands by protecting our natural resources and balancing recreational activities among all user groups county-wide to create a high quality recreational experience for all.*

Trail System Goals

Several trail system goals were developed to help guide the development of the Master Trail Plan. The trail system goals include the following:

1. Implement trails on public lands to support:

- a. Recreation

- b. Tourism
 - c. Economic Development
 - d. Active Transportation

2. Balance environmental, economic and community benefits for future generations.

3. Place trails to provide connections to community recreation destinations and existing trail networks.

4. Design sustainable, resilient, and high-quality trail systems that host a variety of non-motorized and motorized trails that are easy to maintain.

5. Integrate trail implementation into other infrastructure enhancement projects for cost efficiencies, to the extent feasible.

6. Design a safe trail system that is accessible to people of all abilities.

7. Develop the Trail Master Plan to function as a tool to guide and inform future Capital Improvement Projects (CIP) and funding grant applications.

STAKEHOLDERS AND ENGAGEMENT

A Project Advisory Committee (PAC) was established to help guide the development of the Master Trail Plan. The PAC was composed of a variety of county business owners, local citizens, and government officials (see Table 1 for a complete list of PAC members). In addition to the PAC, the public was invited to offer their input at two open houses each at Detroit Lakes Library, the White Earth Nation Pow Wow in mid-June, and at the Becker County Fair in early-August. In addition, the public had three opportunities to share their input using online engagement tools. Information received through public engagement informed the final Master Trail Plan. See Section 5 for a summary of public input received.

Name	Organization
Guy H. Fischer	Becker County
Jane Butzer	MnDOT
Patrick Hollister	PartnerSHIP 4 Health
Wayne Hurley	West Central Initiative
Dan P. McLaughlin	Becker County
James D. Olson	Becker County
Benjamin D. Grimsley	Becker County Commissioner
John Okeson	Becker County Commissioner
Del Bergseth	Becker County Recreational Advisory Committee
Hank Ludtke	City of Frazee
Kelcey Klemm	City of Detroit Lakes
Brad Green	Detroit Lakes
Lyn A Hartness	Osage Township
Stephanie Poegal	City of Audubon
Lonnie Neuner	Lake Park
Cleone Stewart	Visit Detroit Lakes
Michael Bowman	White Earth Nation
Mary Safgren	MnDOT
Bim Holte	City of Detroit Lakes
Jon Pratt	Apex Engineering Group
David B Schotzko	MN DNR

Table 1: Project Advisory Committee

PROJECT SCHEDULE

The Master Trail Plan was composed of a three-part process over an eight-month timeframe (Figure 1).

Inventory and Assessment

The inventory and assessment phase consisted of establishing project goals, and mapping existing trail facilities. The inventory and assessment phase also assessed the demographic, cultural, ecological, and infrastructure conditions in Becker County. The inventory and assessment information was presented to the PAC on June 13, 2019. The inventory and assessment was then presented to the public at the White Earth Nation Pow Wow, the first Open House, and through online engagement.

Develop Trail System Options

During the trail system development phase, further analysis was conducted based on the input received from the public and the PAC. After a synthesis of existing conditions was created, three bicycle and pedestrian facility trail network concepts were established.

All three trail network concepts developed achieved the established trail system goals and vision developed in the first phase of the project. Each of the three concepts proposed a different potential Heartland State Trail route that served as the spine of the trail network. All three concepts proposed implementation of widened paved roadway shoulders to

establish connections from communities to the Heartland State Trail Extension. Concepts for other trail types included two new water trails and several potential locations for equestrian and mountain bike facilities.

The concepts and refined analysis were presented to the PAC on August 6, 2019. After

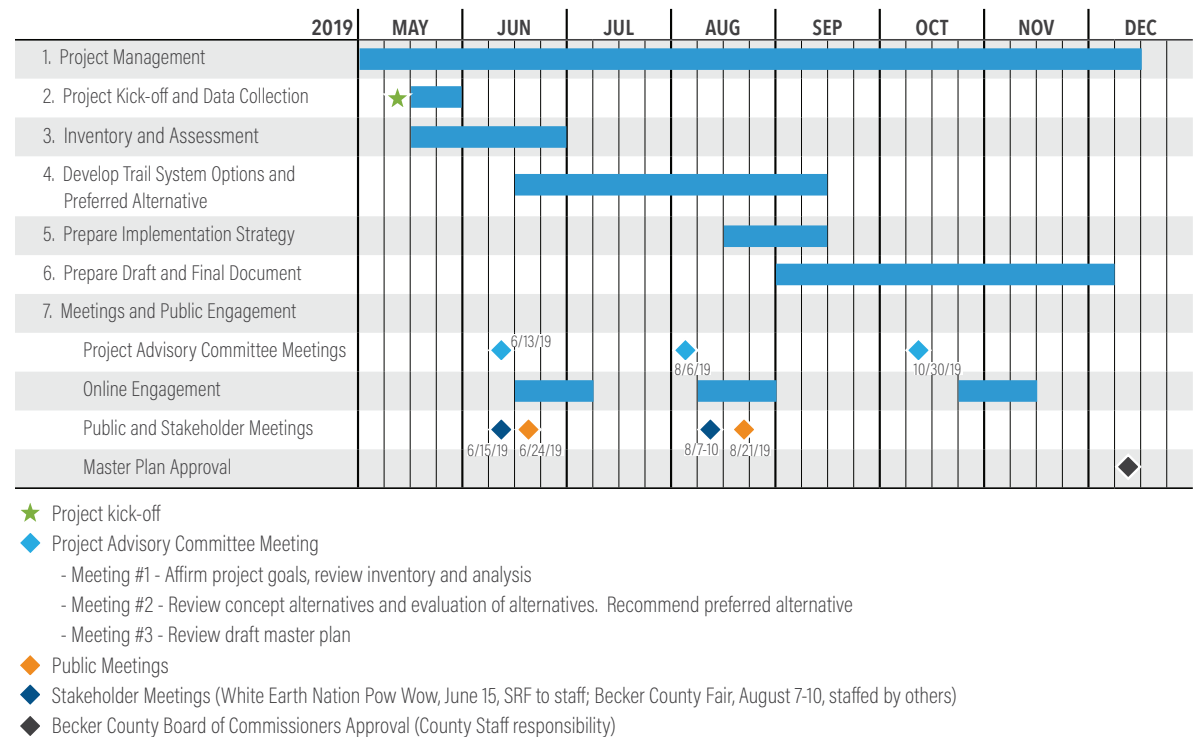


Figure 1: Project Schedule

suggested revisions were made, the concepts were presented at a public open house in August. The public also had the opportunity to comment on the concepts using an online survey and at the Becker County Fair booth. The public engagement materials and feedback results can be found in Section 5.

Refine Trail System Options to Preferred Plan and Develop and Implementation Approach

A preferred concept was developed based on the input received during the second round of public input and a trail system implementation strategy was prepared. During a third round of online engagement, further input on the preferred trail alignments and implementation strategies were received by the public. The final PAC meeting, held on October 30, 2019, reviewed the draft Master Trail Plan report and provided suggested report revisions.



Section 2: Existing Conditions and Analysis

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SECTION 2: EXISTING CONDITIONS AND ANALYSIS

EXISTING AND PLANNED TRAILS

Becker County is near multiple existing and planned trails of national, statewide, or regional significance. Connecting Becker County to the network of existing and planned bicycle and pedestrian facilities was a primary goal of the Master Trail Plan (Figure 2). These existing and planned trails are described in more detail below.

Heartland State Trail

The Heartland State Trail is a 49 mile trail that extends from Park Rapids to Cass Lake. The trail is primarily built on a former railroad bed providing a level riding experience. From Park Rapids to Walker, the trail has a grassy trail adjacent to the paved trail for horseback riding and mountain biking. A trail expansion with several alternative routes from Park Rapids to Fargo/Moorhead is planned for future development (Figure 2).

Paul Bunyan State Trail

The Heartland State Trail connects to the Paul Bunyan State Trail. The Paul Bunyan State Trail extends 115 miles from Crow Wing State Park to Lake Bemidji State Park. This trail is noted as the longest continuous paved rail-trail in the country and the longest Minnesota State Trail (Figure 2).

Adventure Cycle Route

The Northern Tier Adventure Cycle Route is one of many cross-country cycling routes identified by the Adventure Cycle Association. The Northern Tier Adventure Route begins in Anacortes, Washington and ends in Bar Harbor, Maine. A portion of the Northern Tier Adventure Cycle Bike Route guides users through Becker County. While no data exists on the number of bicyclists that pass through the county using this route, anecdotally, Becker County residents notice touring bicyclists passing through the county along this route in the summer months. Adventure Cycle bike

routes primarily follow rural, low traffic roads through scenic and historic landscapes (Figure 2)

MnDOT Bicycle Investment Route Search Corridors

The Minnesota Department of Transportation (MnDOT) prepared the Statewide Bicycle System Plan completed in 2016. MnDOT District 4 developed a Bicycle Plan in March, 2019, that builds on the MnDOT Statewide Plan. The District 4 plan identifies Bicycle Investment Routes that will guide future bicycle facility investments in District 4 (Figure 3).

Perham to Pelican Rapids Regional Trail

The planned Pelican Rapids to Perham Regional Trail will run east/west from Pelican Rapids to Perham, connecting to Maplewood State Park on the park's east and north boundaries (Figure 2). A connection from Becker County to the Perham to Pelican Rapids Regional Trail could be achieved by connecting a trail to Otter Tail County's proposed pedestrian and bicycle trail system.

North Country Scenic Trail

The North Country Scenic Trail (NCT) is a planned/designated national hiking trail that extends 4,600 miles from eastern New York to Lake Sakakawea State Park in central North Dakota. The trail passes through Becker County entering near Frazee and exiting from the White Earth State Forest. The North Country Scenic Trail is a combination of on-road and off-road single track trails that is partially developed in Minnesota. The North Country Scenic Trail is complete across Hubbard County through Itasca State Park and into Becker County to the Hubble Pond

Wildlife Management Area located just south of Tamarac National Wildlife Refuge (Figure 2 and Figure 3).

Mountain Bike Trails

Detroit Mountain Recreation Area and Mountain View Recreation Area are the only two designated single track mountain bike facilities located in Becker County. Both facilities are located near Detroit Lakes. In addition to the two single track mountain bike facilities, all state and county forest roads are open for mountain bike riding unless specifically posted. Roads and trails within the Tamarac National Wildlife Refuge are not open to mountain bikes (Figure 3).

Equestrian Trails

Designated equestrian trails are accommodated in Mountain View Recreation Area. In addition, all state and county forest roads are open for equestrian riding (Figure 3).

Cross Country Ski Trails

Cross country ski trails in the county are accommodated on private and public lands. Private cross country ski trail systems include

Maplelag Resort, Ike Fischer Trails, and Detroit Mountain Recreation Area. Cross country ski trail systems on public land include Pine Lake, Pickerel Lake, Dunton Locks County Park, and Mountain View Recreation Area. The Minnesota Ski Pass is currently not required for public ski trails located in Becker County (Figure 3).

Existing and Planned Trails in Communities

Several communities in Becker County have developed bicycling and pedestrian plans. Proposed local bicycle and pedestrian facilities were mapped to determine if the county system could potentially connect to existing or planned local trails (Figure 4 through Figure 10).

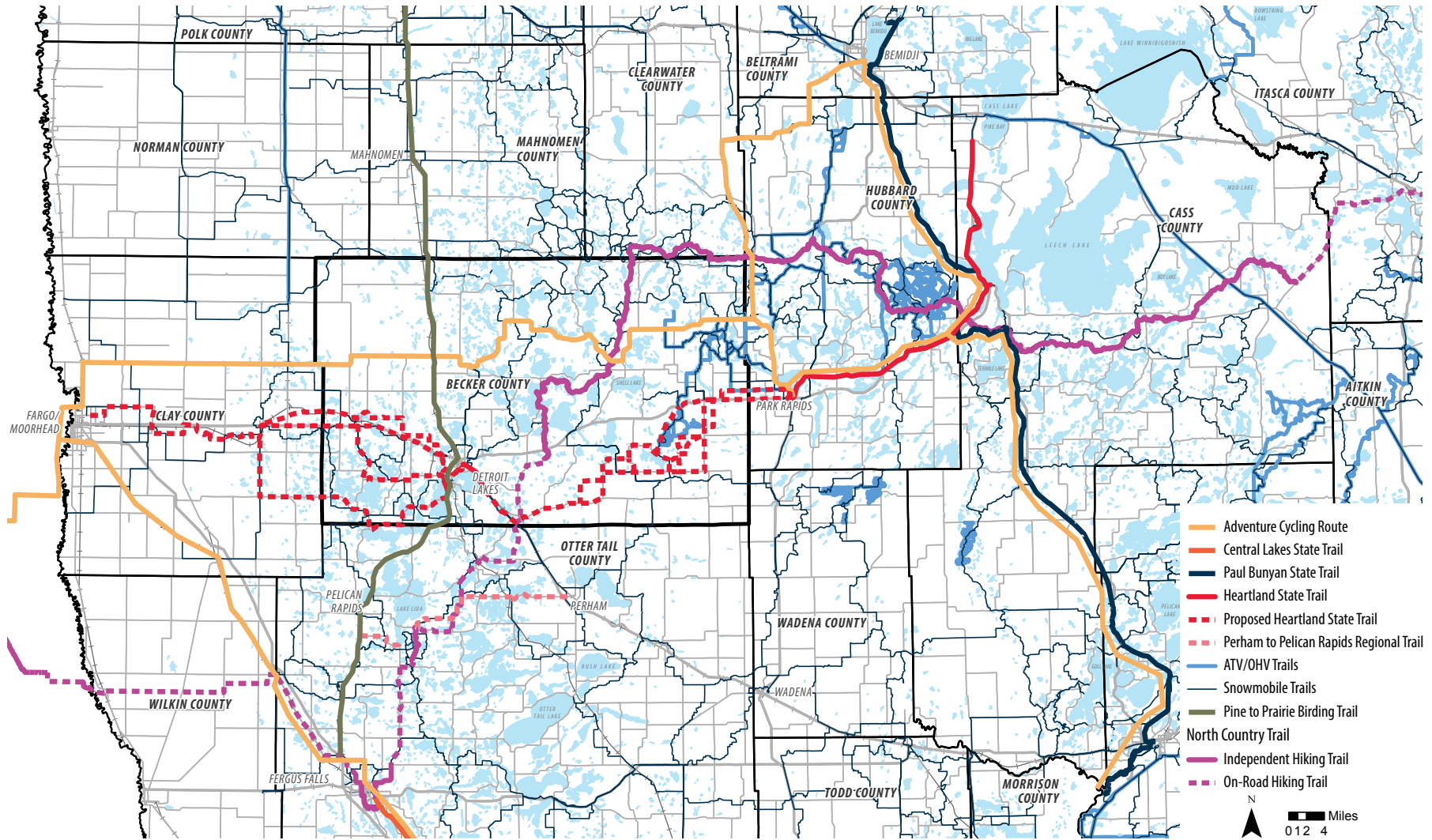


Figure 2: Regional Trail Context

Section 2: Existing Conditions and Analysis

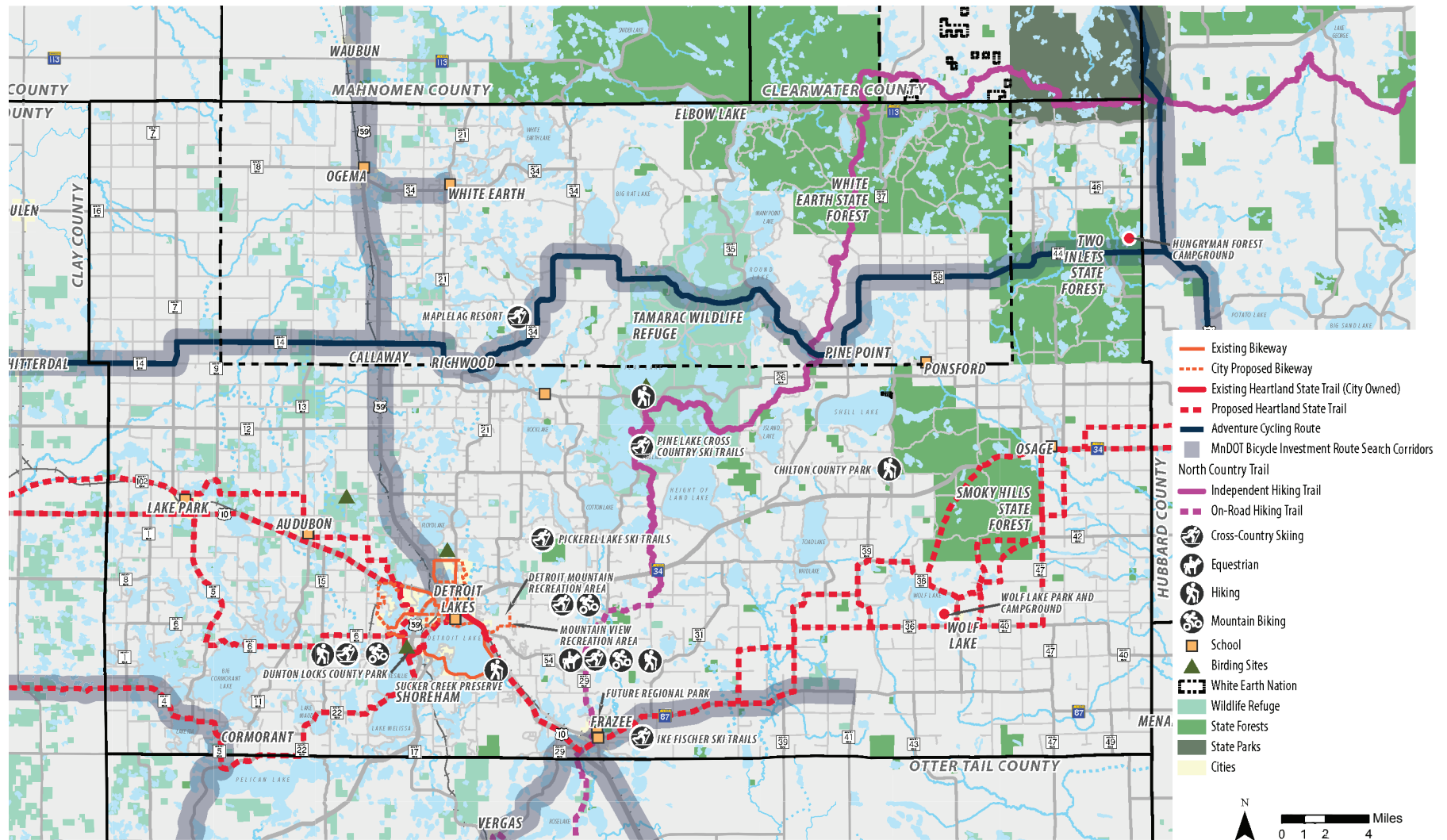


Figure 3: Existing and Planned Non-Motorized Trails and Destinations

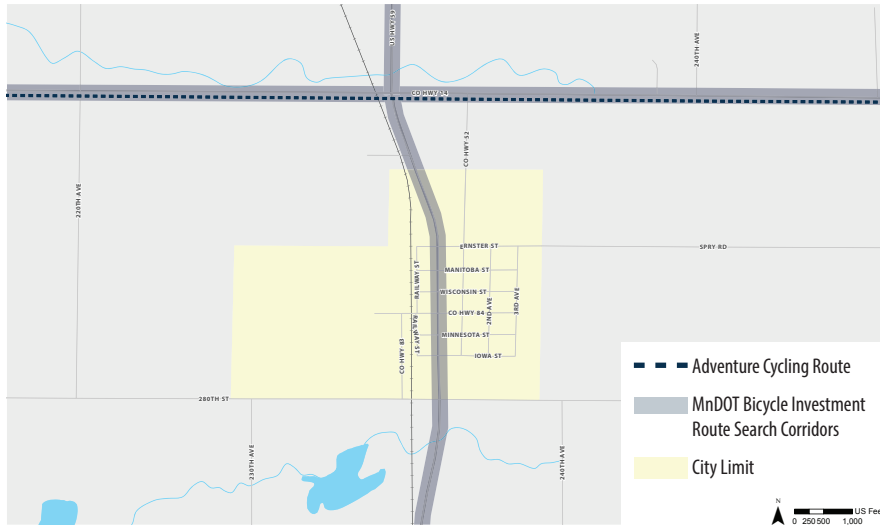


Figure 4: Non-Motorized Trails in Callway

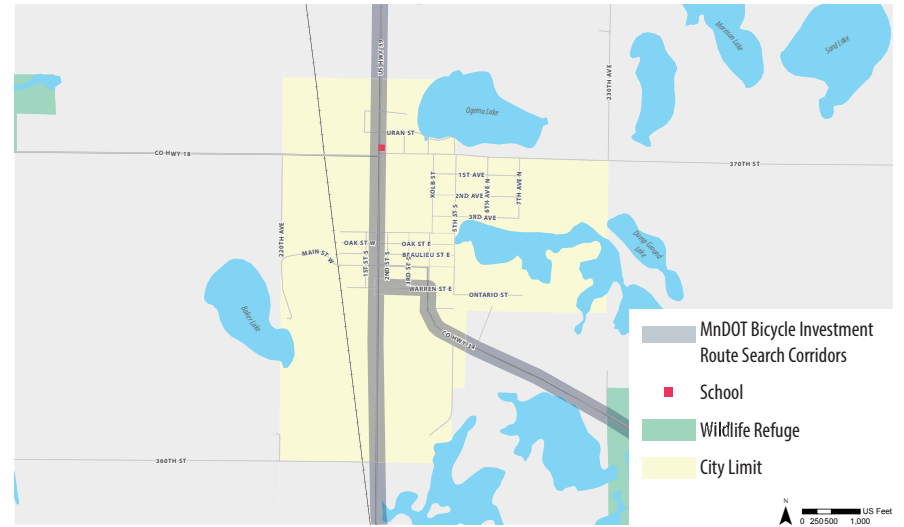


Figure 5: Non-Motorized Trails in Ogema

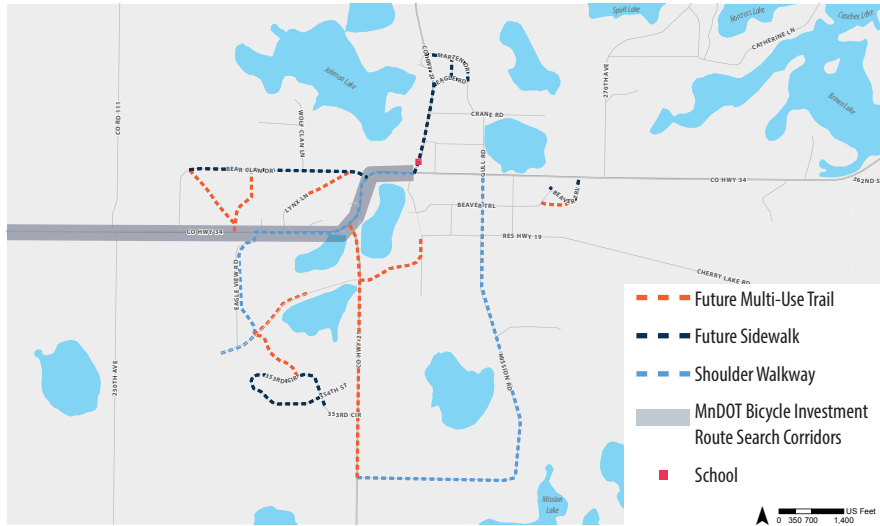


Figure 6: Non-Motorized Trails in White Earth Village

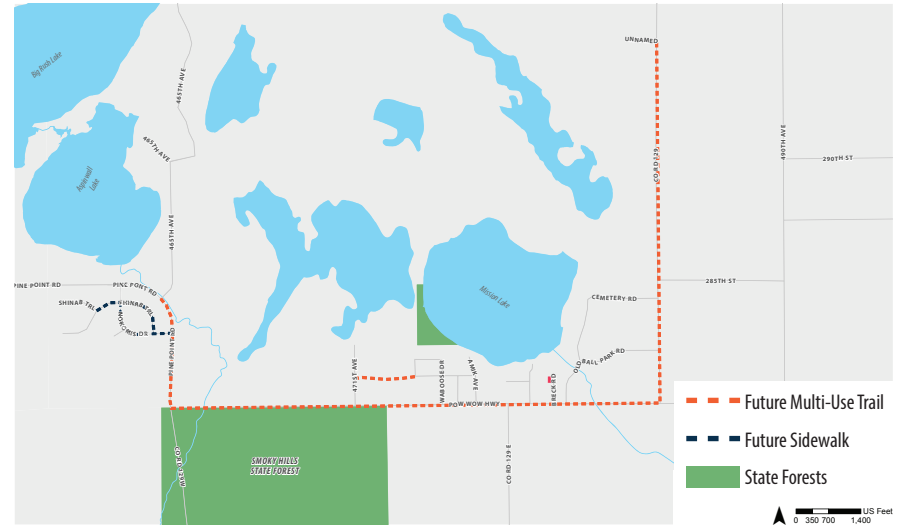


Figure 7: Non-Motorized Trails in Pine Point

Section 2: Existing Conditions and Analysis



Figure 8: Non-Motorized Trails in Lake Park

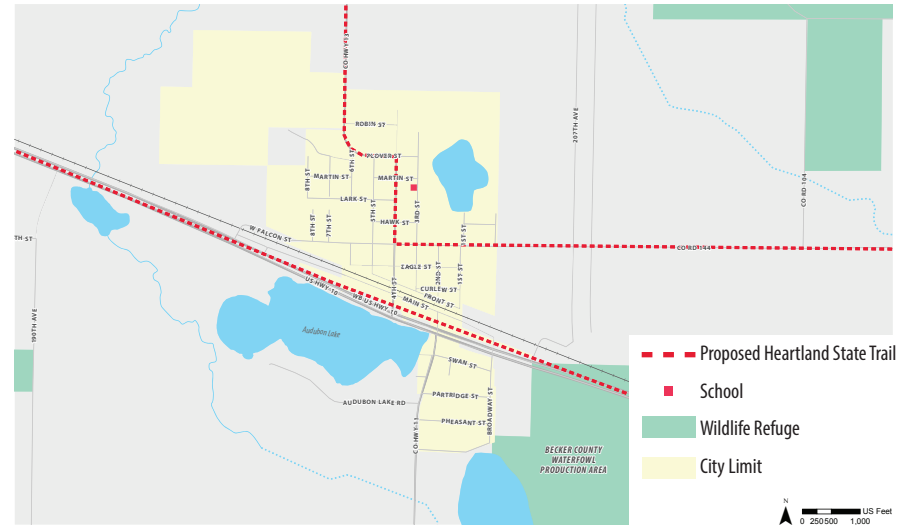


Figure 9: Non-Motorized Trails in Audubon



Figure 10: Non-Motorized Trails in Frazee

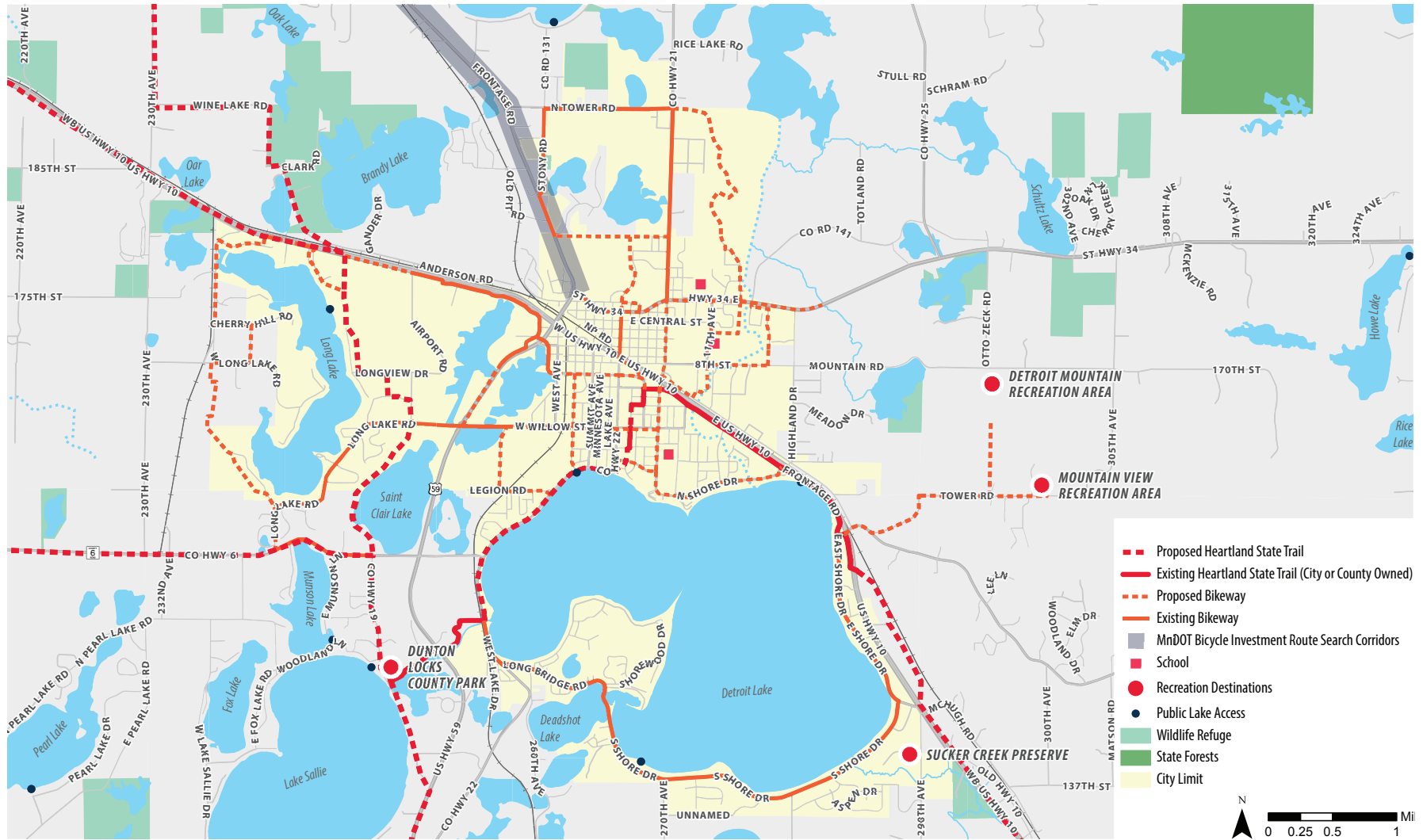


Figure 11: Non-Motorized Trails in Detroit Lakes

Water Trails

Water trails are stretches of rivers, streams, or lakes that are mapped and managed for canoeing, kayaking, boating, and camping. Currently, there are 35 Minnesota State Water Trails consisting of over 4,500 miles of paddling. One of the 35 designated state water trails is found in Becker County on the Otter Tail River. The 157-mile-long Otter Tail River State Water Trail brings users through three of the four biomes found in the state (Figure 12).

Snowmobile Trails

Snowmobile trails in Becker County are developed and maintained by the DNR grant-in-aid trail process. The DNR grant-in-aid trail process administers a cost-sharing program for the development and maintenance of snowmobile trails. In total, the grant-in-aid snowmobile trails consists of approximately 21,000 miles of trails Statewide (Figure 2 and Figure 13). Becker County grant-in-aid snowmobile trails are designed and maintained by the Minnesota United Snowmobilers Association and by the ULTRA Snowmobile Association.

All-Terrain Vehicle (ATV) Trails

Designated ATV trails are accommodated in Smokey Hills State Forest and Two Inlets State Forest. ATVs in land managed by the state are classified as “limited” by the DNR. A limited classification means all state forest roads and minimum maintenance trails are open to motorized recreation. All other trails are considered closed to motorized recreation unless marked otherwise. ATVs may ride on county road right-of-ways and tax forfeited lands unless specifically marked closed. In Becker County, the Forest Riders ATV Trail club and the Woods ‘n’ Wheels ATV club develops and maintains grant-in-aid ATV trails. (Figure 13 and Figure 14).

Roadway Recreation Corridors

Roadway recreation corridors in Becker County include the Becker County Veterans Memorial Highway and the Lake Country Scenic Byway. The Lake Country Scenic Byway extends 88 miles between Detroit Lakes and Walker and passes through many resort communities (Figure 13).

Pine to Prairie Birding Trail

The International Pine to Prairie Birding Trail follows the Highway 59 corridor from Fergus Falls to Thief River Falls, Warroad and then into Canada. The Minnesota portion of the trail runs 200 miles with 45 bird viewing sites. A birding guide for the Pine to Prairie Birding Trail was developed to help trail users, ranging from beginner birders to advanced birders, enjoy the trail (Figure 13).

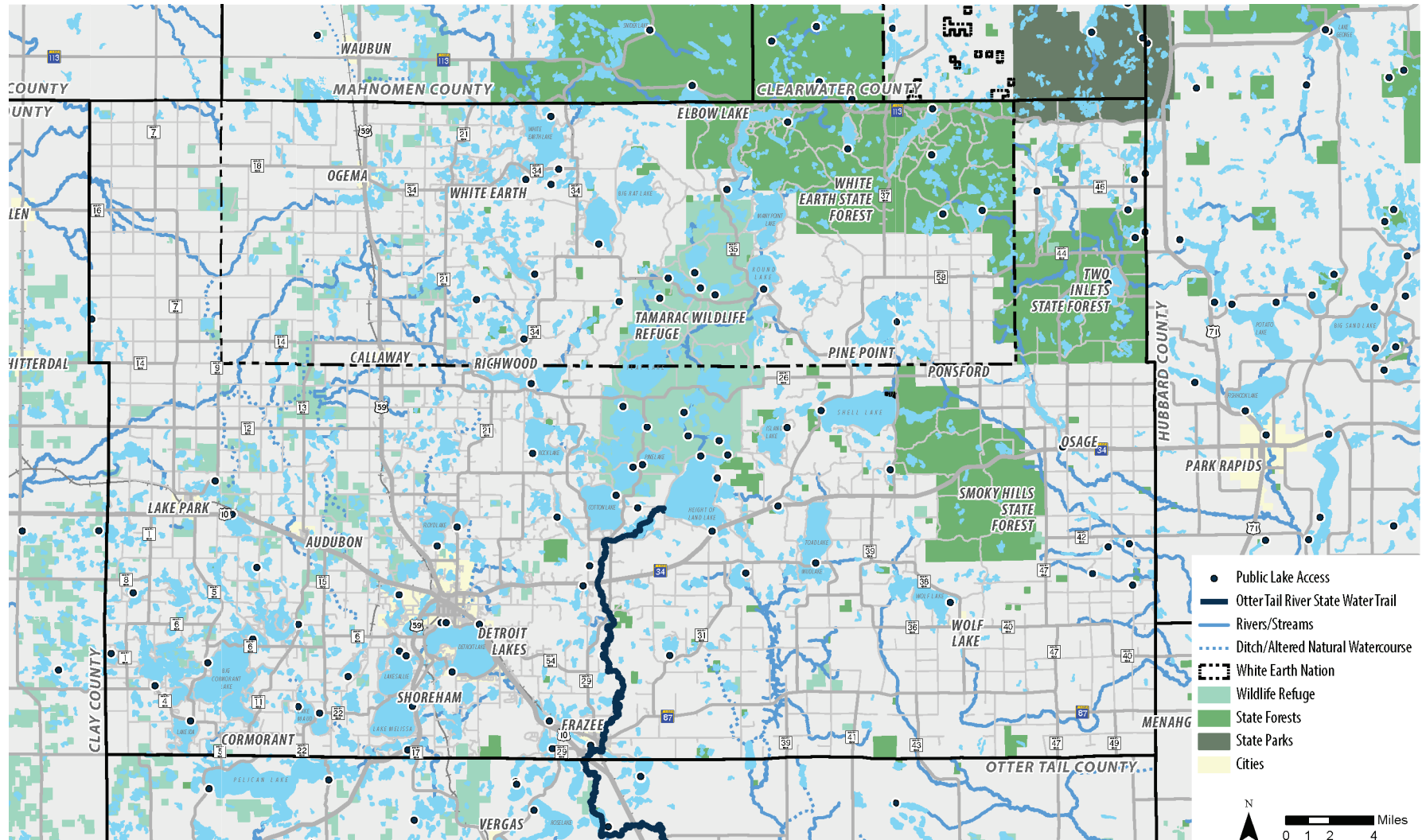


Figure 12: Existing Water Trails

Section 2: Existing Conditions and Analysis

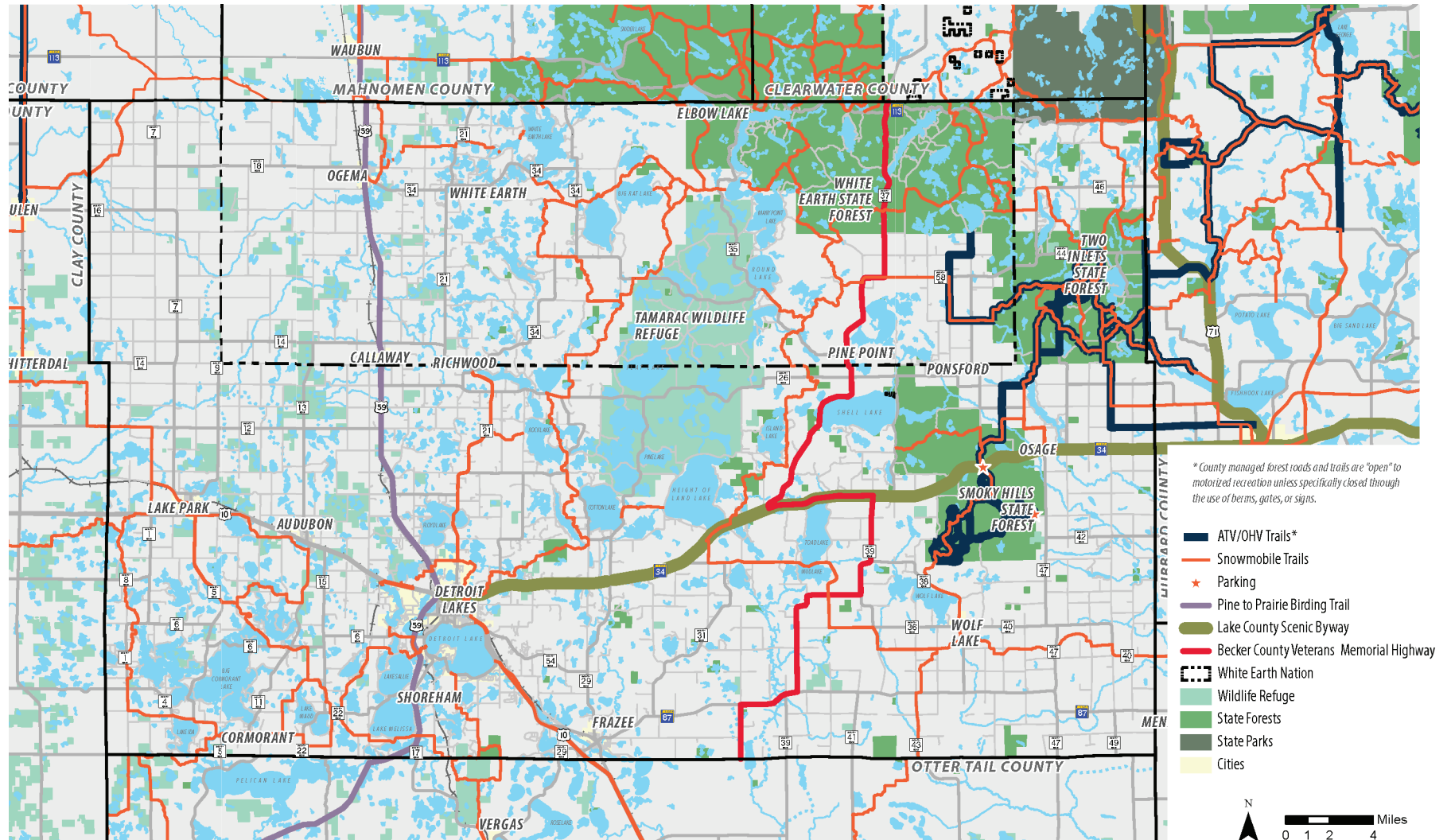


Figure 13: Existing Motorized Trails

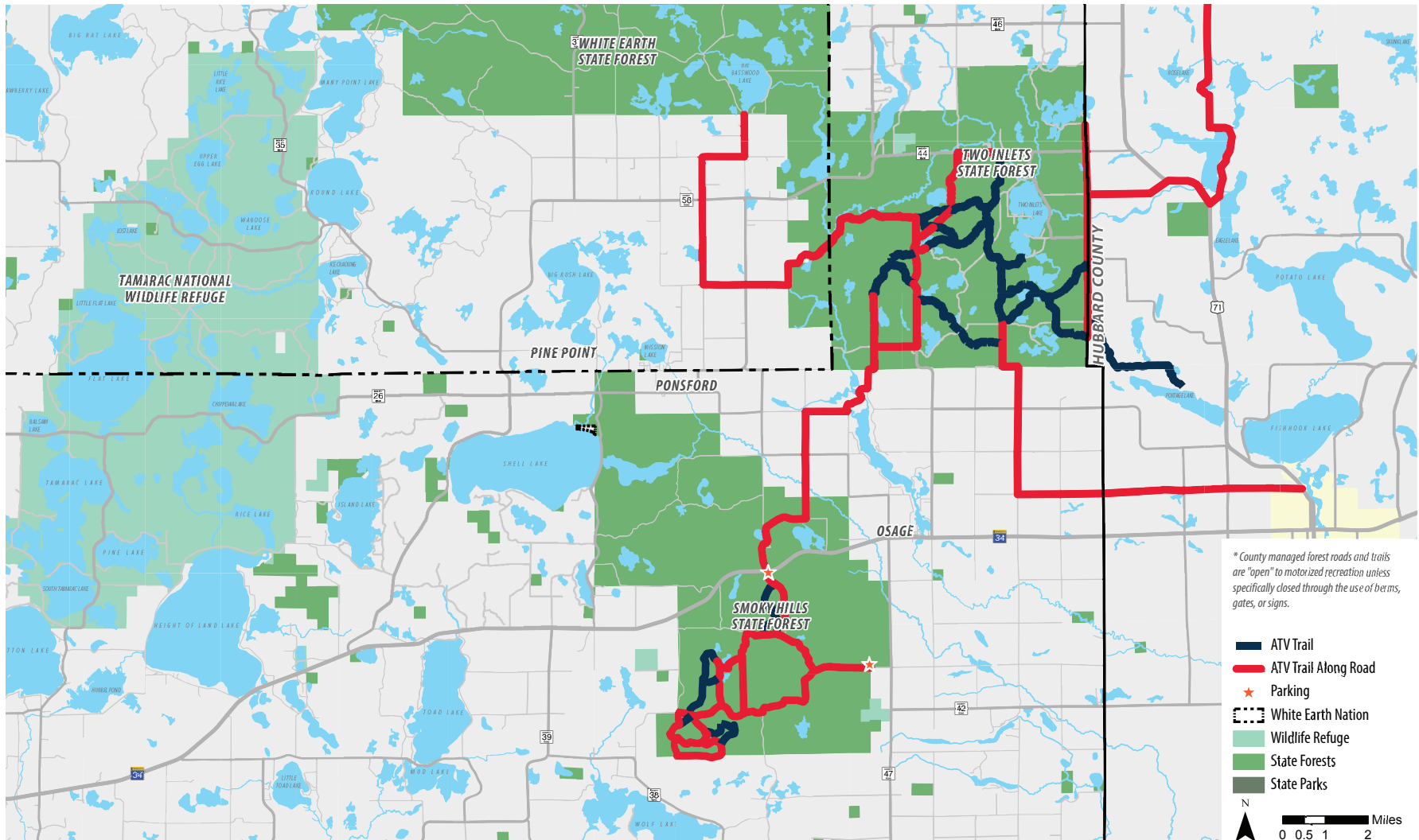


Figure 14: Existing ATV Trails

TRAILS NETWORK ANALYSES

Given increasing popularity of walking and bicycling for both transportation and recreation purposes, a larger effort of the Master Trail planning effort focused on investigating potential alignments for the Heartland State Trail Extension through Becker County and the development of a county-wide bicycle trail network. To inform the various trail routes proposed in the Master Trail Plan, a detailed analysis of various Becker County attributes, such as population density, land ownership, landscape features, roadway infrastructure, and cultural destinations, was conducted.

Population Density

The population density of the Becker County is highest in and adjacent to Detroit Lakes followed by the Frazee area (Figure 15). Due to the large number of lake dwellings and resorts in the county, higher population densities show up in areas of the county not associated with a specific town. These lake-based residences create a flux in temporary residents in the summer months and can be considered seasonal population clusters. This

is the case in the lakes near Detroit Lakes, and the southwest portion of the county. The lowest population densities in the Becker County exists in the agricultural sections of the county and state forests, and associated surrounding areas. Understanding population density helped inform where bicycle facility development could serve the highest number of county residents.

Tax Forfeited Land

Tax forfeited land are parcels that are held by the State in trust of the local units of government and managed by Becker County (Figure 16). Given their public ownership, these parcels may be suitable for recreation and trail development.

Sites of Biodiversity

Sites of biodiversity have been identified by the Minnesota Biological Survey (MBS). A biodiversity ranking is assigned to each site based on the presence of rare species population, the size and condition of native plant communities, and the landscape context of the site. The ranking ranges from outstanding, high, moderate, or below. Figure 17 depicts sites of biodiversity within Becker

County. Areas of biodiversity significance (MBS rankings of outstanding, high, or moderate) should be protected from trail activity that could cause potential damage to these sensitive and important natural resources.

Wetlands

Wetlands are an important landscape feature providing a multitude of ecological benefits. They play a key role in maintaining a healthy water system. Becker County has many high-quality wetland complexes. It is important that any trail development avoids wetland impacts where possible. Figure 19 displays wetlands using National Wetland Inventory (NWI) data developed by the US Fish and Wildlife Service.

Tax Forfeited Land and Sites of Biodiversity

It is important to note that many of the tax forfeited lands are also identified as sites of biodiversity significance (Figure 18). In addition, many tax forfeited lands contain large wetland complexes. Therefore, a detailed study of potential environmental impacts associated with trail development should be conducted to insure biodiverse landscapes on tax forfeited lands are not negatively impacted.

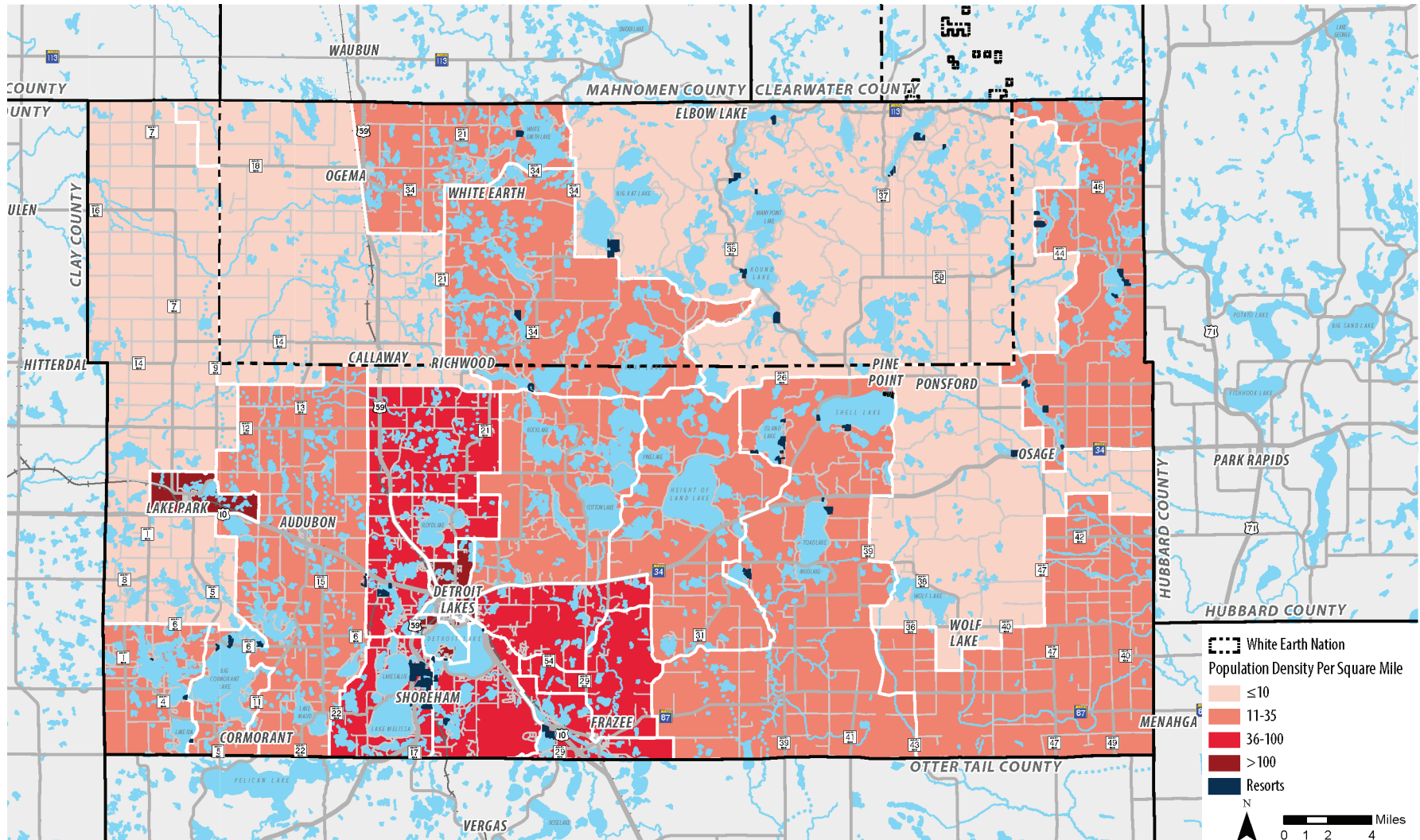


Figure 15: Population Density

Section 2: Existing Conditions and Analysis

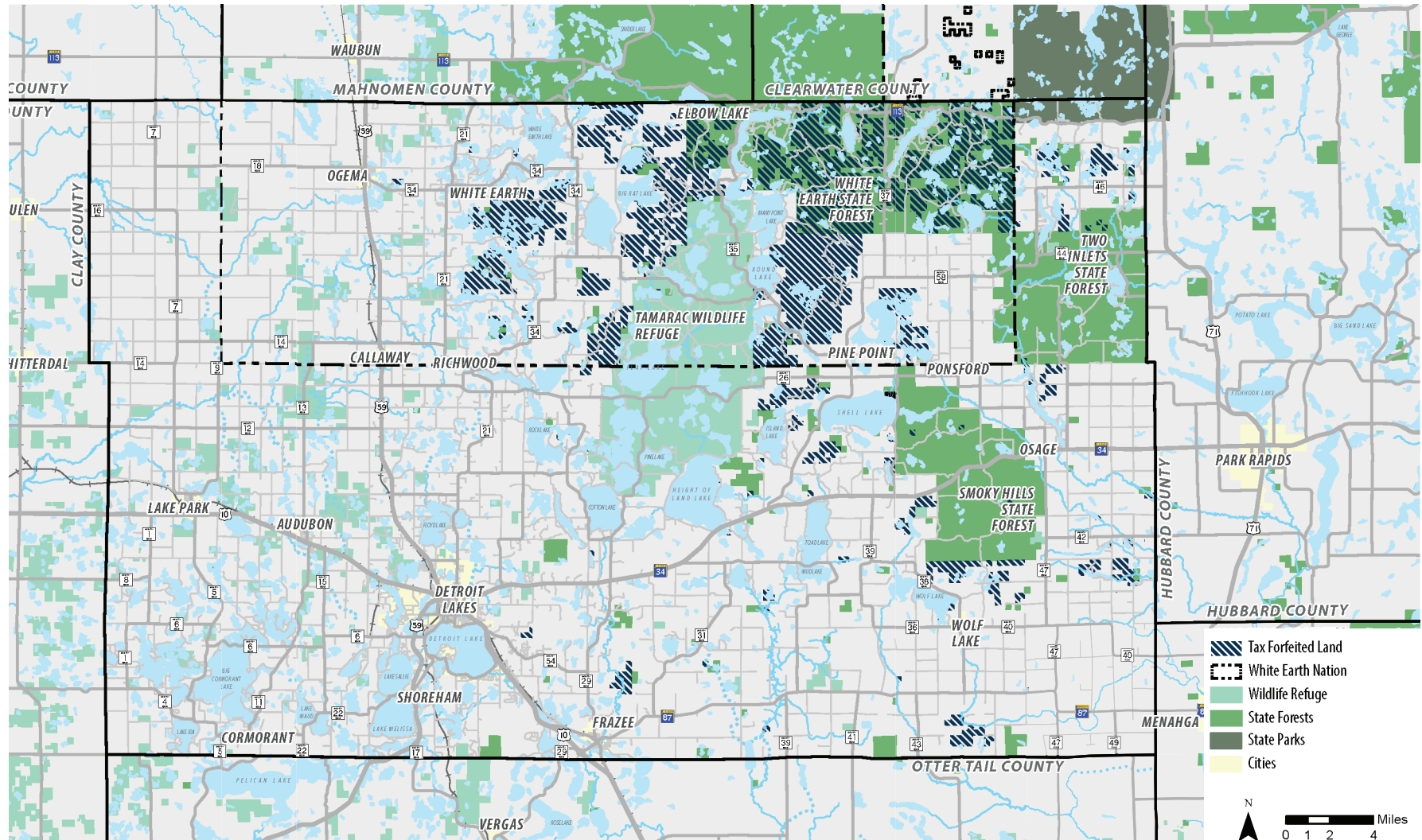


Figure 16: Tax Forfeited Land

Section 2: Existing Conditions and Analysis

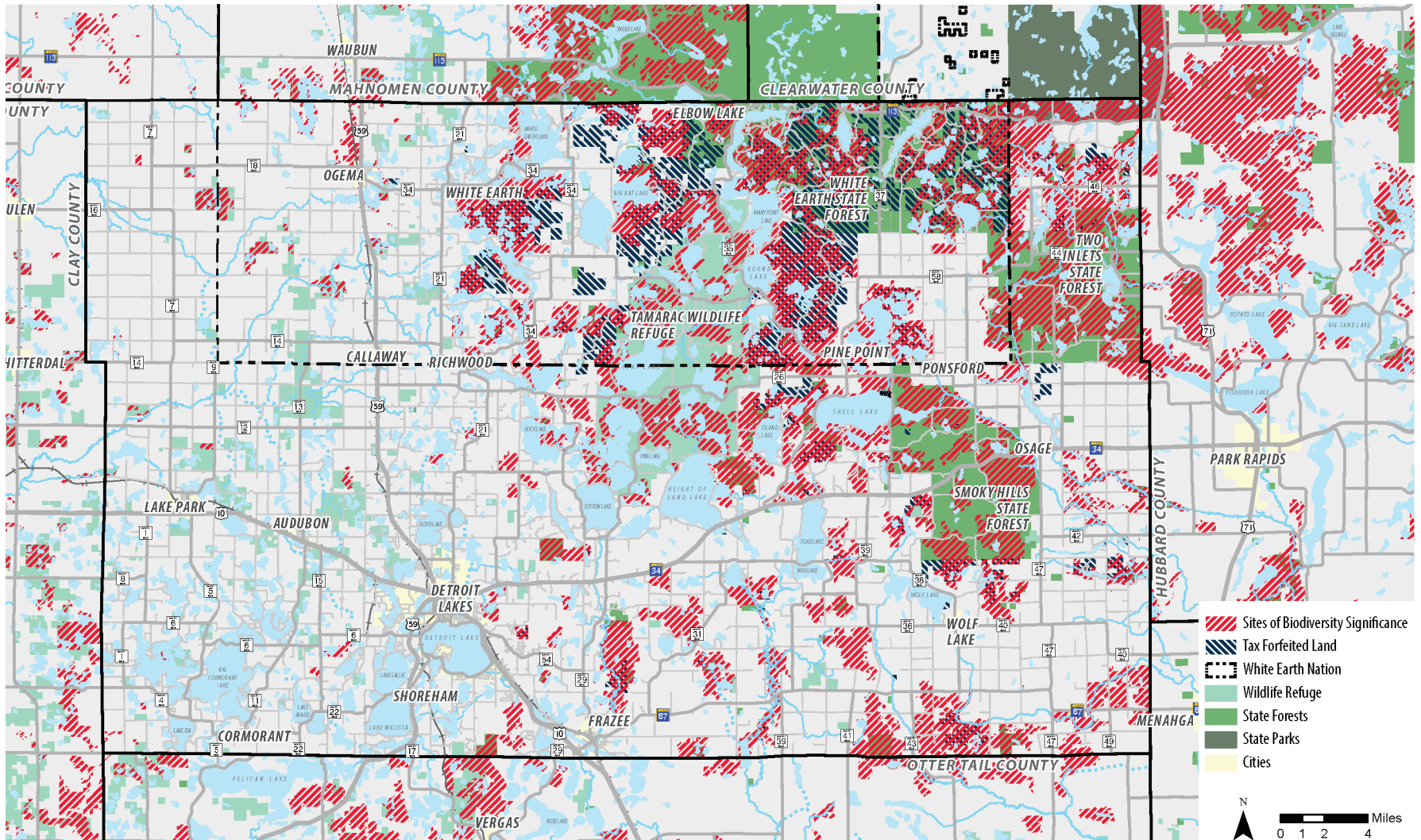


Figure 18: Tax Forfeited Land and Sites of Biodiversity

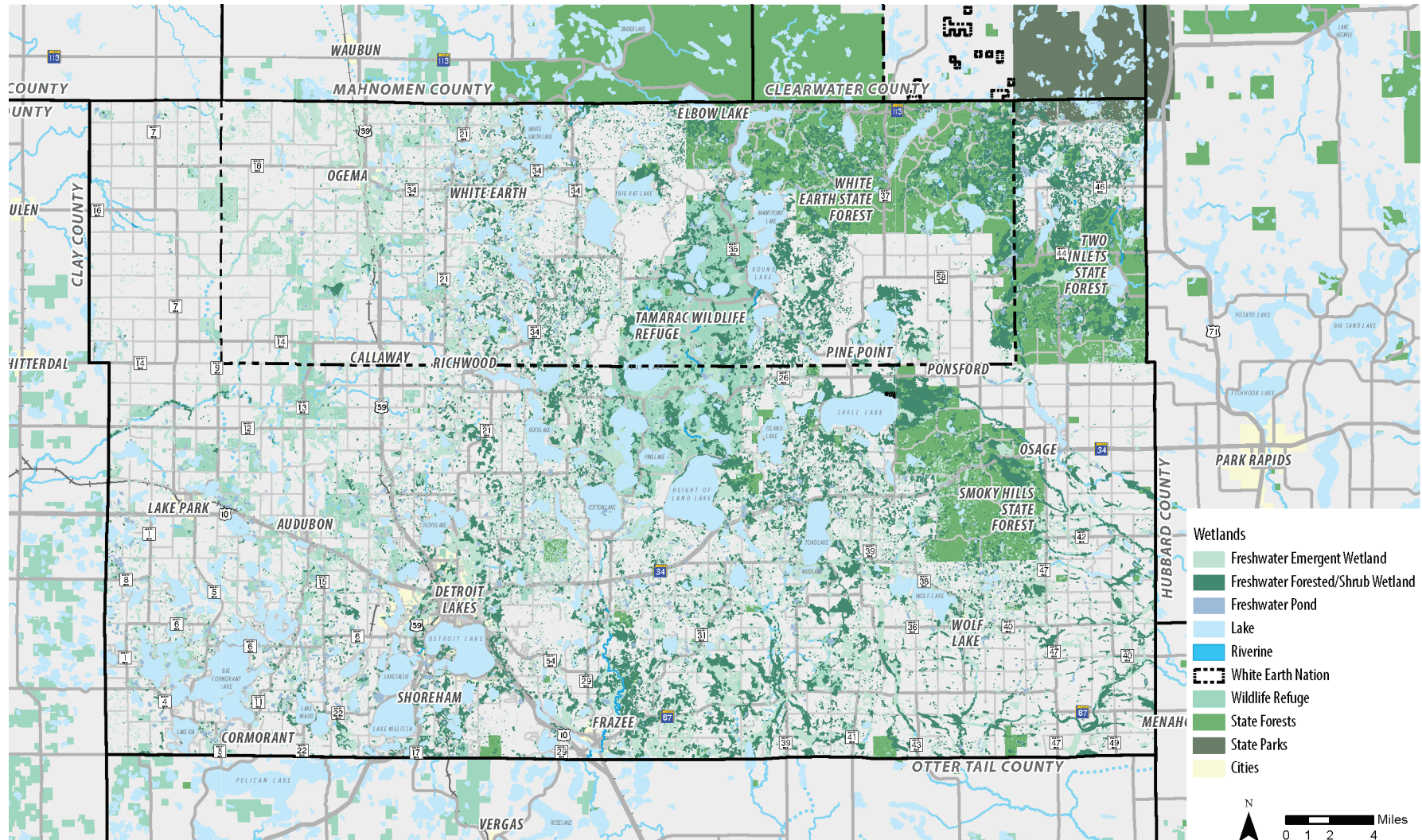


Figure 19: Wetlands

Interpretive Opportunities

Where possible, trail development should highlight the history of Becker County. There are two main historic trails located in Becker County (Figure 20) . The first historic trail is the Steamboat Trail. The steamboat route between Detroit Lake and Pelican Lake was established primarily to transport people to their cabins and to transport goods. In 1918, the steamboat operation was replaced with automobiles. The Red River Oxcart Trail is a historic route that connected Winnipeg to Saint Paul. This trail currently crosses private lands and is difficult to identify in most locations.

Annual Average Daily Traffic

One roadway characteristic that creates a less dangerous and more enjoyable trail experience for bicyclist is low roadway traffic volumes. Many cyclist are uncomfortable biking on roadway paved shoulders with high traffic volumes even if the shoulder is wide. Busy roads not only pose greater threat of being struck by vehicles, but also offer a less pleasant riding experience due to noise, air drafts, and vehicle exhaust. To establish a

trail system that is safe and enjoyable for most cyclist, roadways with low average daily traffic volumes, to the extent possible, were prioritized over those with high traffic volumes (Figure 21).

Heavy Commercial Annual Average Daily Traffic

Another factor of bicycle safety and comfort for paved shoulder bikeways is the volume of heavy commercial (truck traffic) on highways. Highways with high heavy commercial traffic were avoided to establish a trail system that is safe and enjoyable for most cyclists. Data for heavy commercial annual average daily traffic is only available for highways managed by MnDOT (Figure 22).

Road Surface

Many roads in Becker County have not been paved because low traffic volumes do not warrant the need for a paved surface. Many cyclist are uncomfortable cycling on gravel surfaces. Furthermore, the dust cloud created by passing vehicles would create an unpleasant experience for cyclist. As depicted in Figure 23 , there are very few east-west

oriented paved roads west of Detroit Lakes, which poses challenges for creating safe and comfortable bicycling routes in this portion of the county.

Shoulder Width and Surface

Design standards in the MnDOT Bikeway Facility Design Manual provide guidance on minimum shoulder widths that vary depending on the road Annual Average Daily Traffic (AADT). Existing roadway shoulder widths and surface material were analyzed to determine roads that may already meet MnDOT design standards or that would only require minimal improvements to meet MnDOT design standards (Figure 24) . Placing paved shoulder trails on roads with existing wider shoulders will reduce development costs.

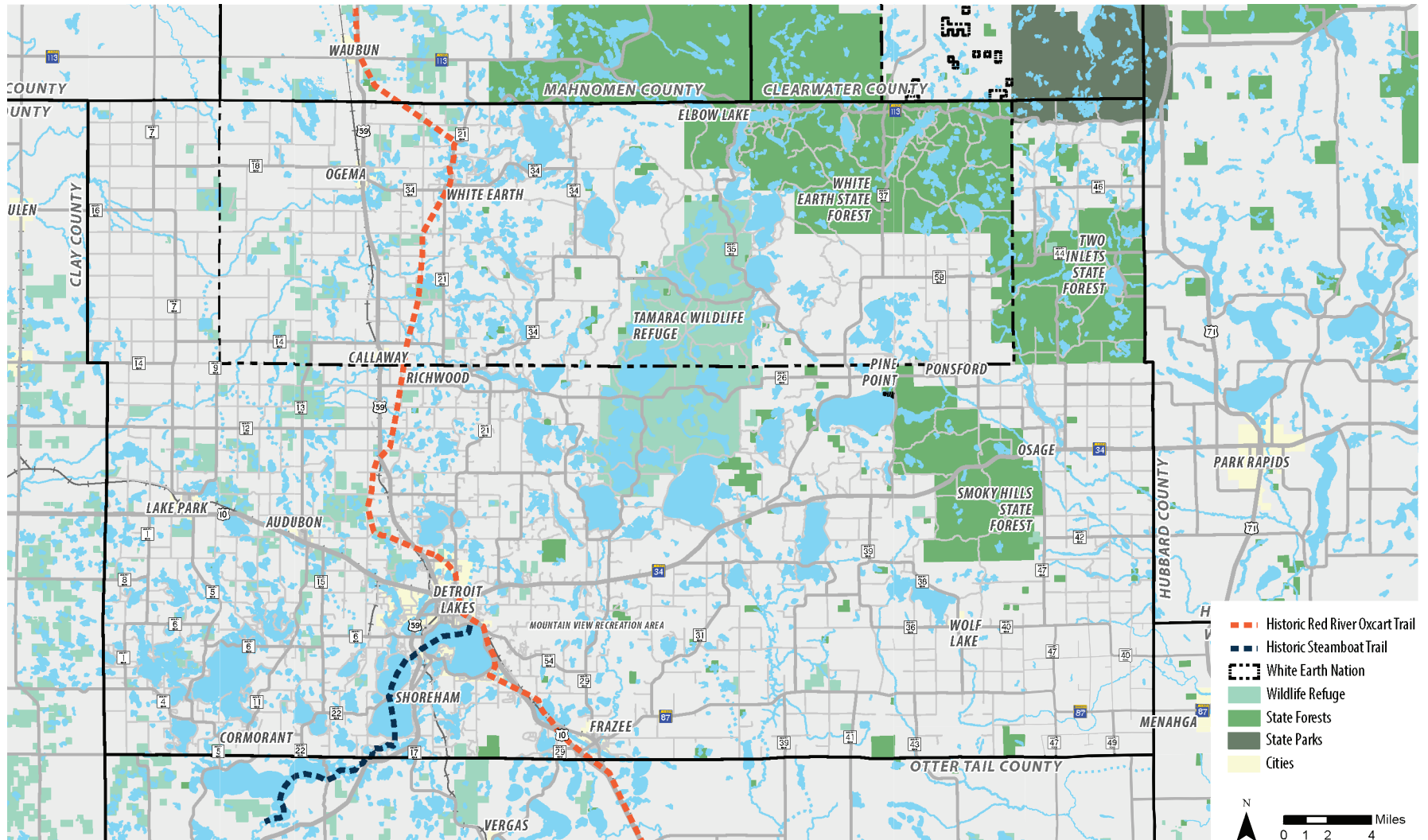


Figure 20: Interpretive Opportunities

Section 2: Existing Conditions and Analysis

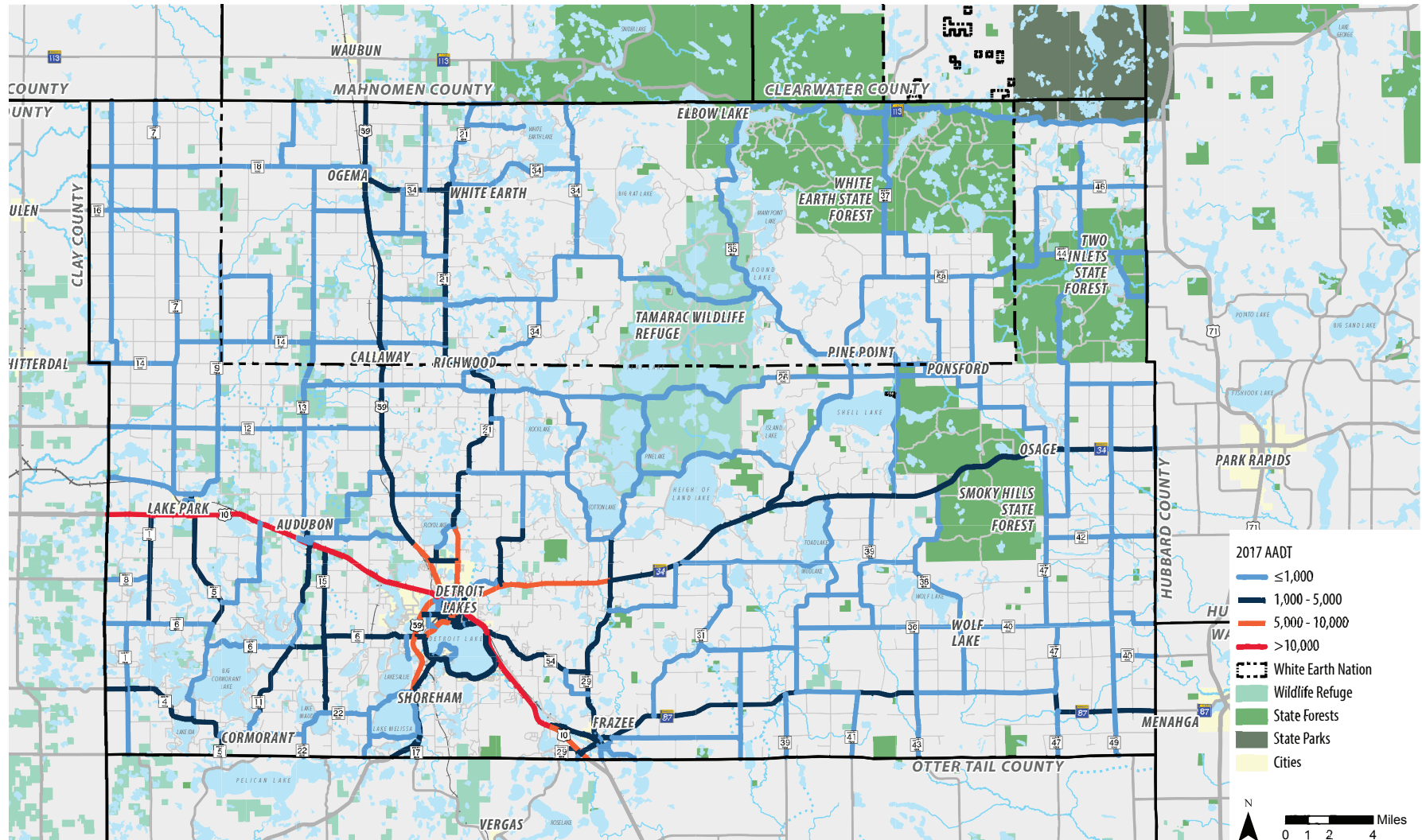


Figure 21: Annual Average Daily Traffic

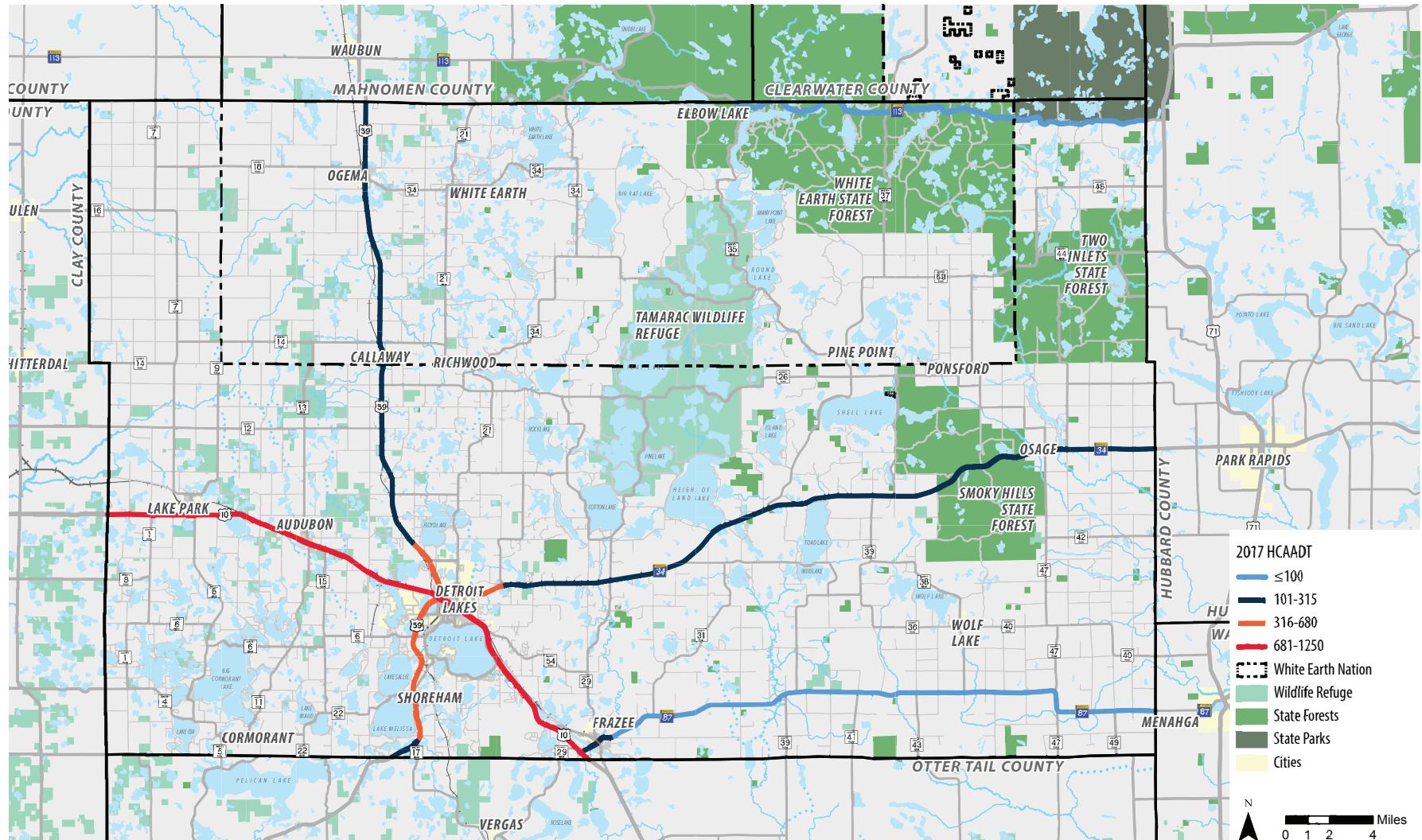


Figure 22: Heavy Commercial Annual Average Daily Traffic (HCAADT)

Section 2: Existing Conditions and Analysis

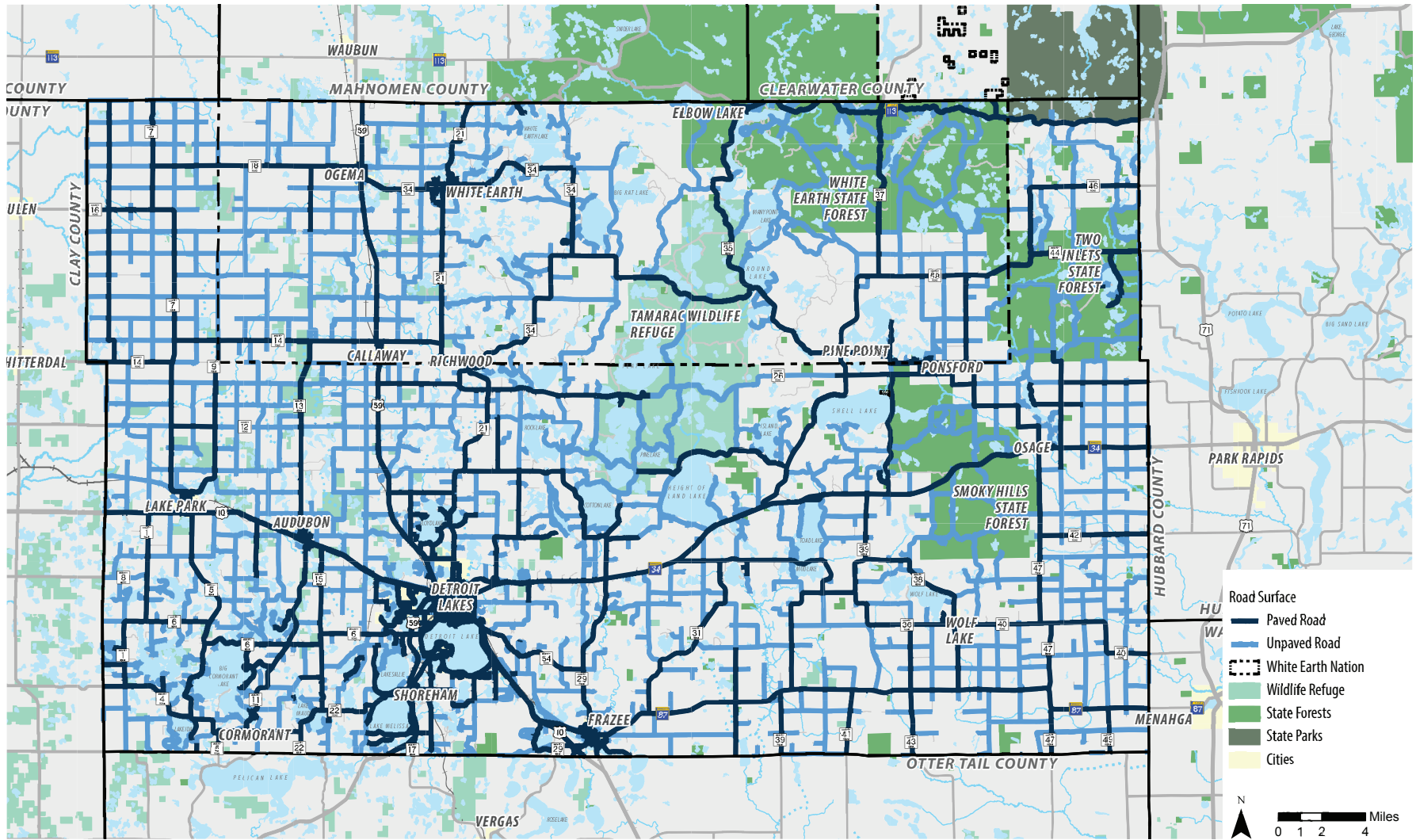


Figure 23: Road Surface



Figure 24: Shoulder Width and Surface

County Destinations

County destinations were identified because trail users often enjoy biking to a destination. Furthermore, trail users who intend to use the trail for transportation will need the trail to connect to the major county destinations. Destinations identified included cities, county parks, campgrounds, schools, birding sites, and popular recreation sites. The state forests and Tamarac National Wildlife Refuge were also considered destinations. Connecting trails to as many destinations was a priority for the Master Trail Plan (Figure 25).

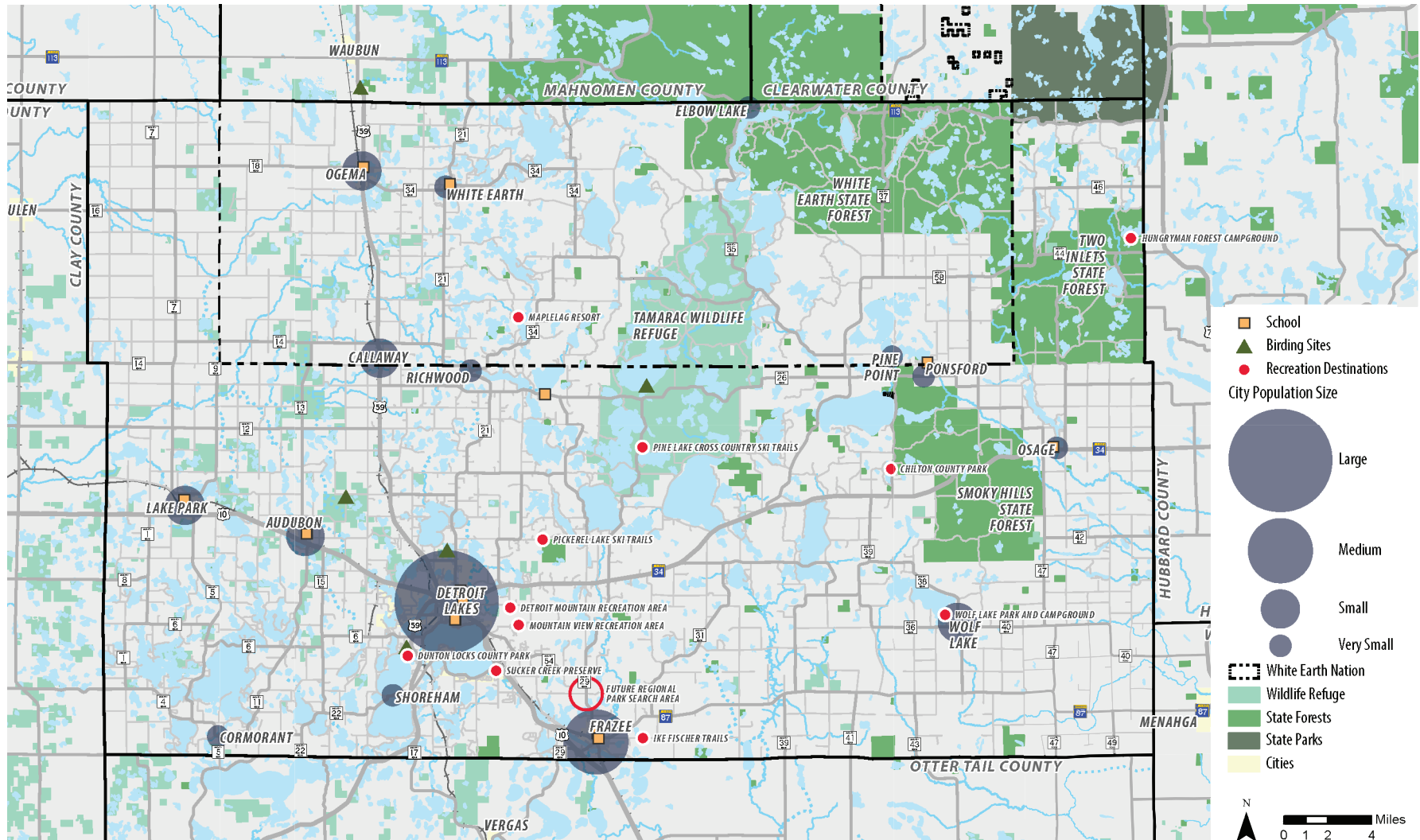
Lakes Area Bike Club Routes

The Lakes Area Bike Club is an organized group of cyclists who host weekly bike rides during the summer. The club developed maps of the routes they regularly ride. The club maps provided insight into routes that cyclist found comfortable to use (Figure 26 and Figure 27).

Alternative Heartland State Trail Route

The Heartland State Trail will extend from Park Rapids to Moorhead. A master plan for

the Heartland State Trail Extension completed by the Minnesota Department of Natural Resources (DNR) in 2011 depicts several alternative routes for the trail through Becker County. The route alternatives predominately followed road rights-of-way and connected the cities of Park Rapids, Osage, Wolf Lake, Frazee, Detroit Lakes, Audubon, and Lake Park. From Lake Park, the Heartland trail extension is planned to make a connection to Hawley, west of Becker County. As part of the Becker County Master Trail Plan, several alternative Heartland State Trail Extension routes, beyond the routes identified in the 2011 DNR master plan, were developed and analyzed (Figure 28) . These route alternatives attempted to provide connections between high population density areas with scenic destinations, such as county lakes and state forests, while also making a logical connection between Park Rapids and Hawley. Alternative routes for the Heartland State Trail Extension will require further analysis and public input prior to the selection of a preferred route through Becker County.



Section 2: Existing Conditions and Analysis

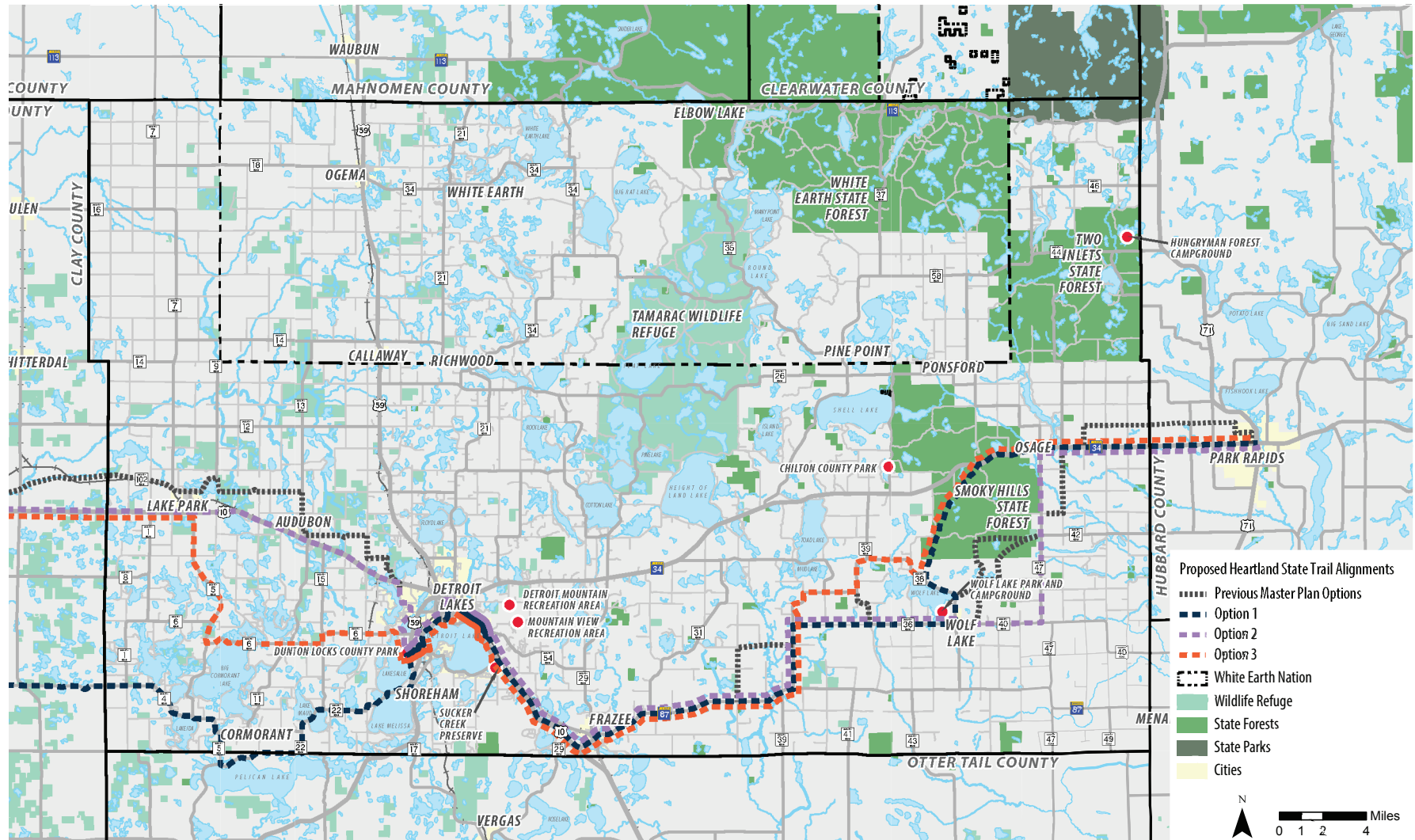


Figure 28: Alternative Heartland State Trail Routes

SECTION 3: PREFERRED TRAIL SYSTEM NETWORK AND IMPLEMENTATION APPROACH

PROPOSED BICYCLE AND PEDESTRIAN FACILITIES

The proposed bicycle and pedestrian trail system was developed to provide recreation opportunities, connect communities to the future Heartland State Trail, provide connections to county destinations, and to provide short bicycle loops out of each community in the county. Public input received (Section 5) suggested a preference for paved roadway shoulders to be located adjacent to low traffic roads.

Bicycle and Pedestrian Trail Types

The pedestrian and bicycle trail plan is comprised of two main trail types, multi-use trail and roadway shoulder trails. Multi-use trails are designed to provide safe facilities physically separated from roadways for children and families and for people who do not feel comfortable walking or bicycling on roadway shoulders. Intended multi-use trail uses include walking, jogging, in-line skating, bicycling, and other uses mandated by state law including, but not limited to,

non-motorized electric personal assisted devices. Multi-use trails are proposed for the alternative Heartland State Trail route and a small connector trail from Detroit Lakes to Detroit Mountain. Figure 29 represents a typical paved multi-use trail in a road right-of-way. Widened roadway shoulders trails are designed to provide local and regional loops originating out of communities. The shoulder trails are also intended to provide nearby communities safe connections to the alternative Heartland State Trail route. The

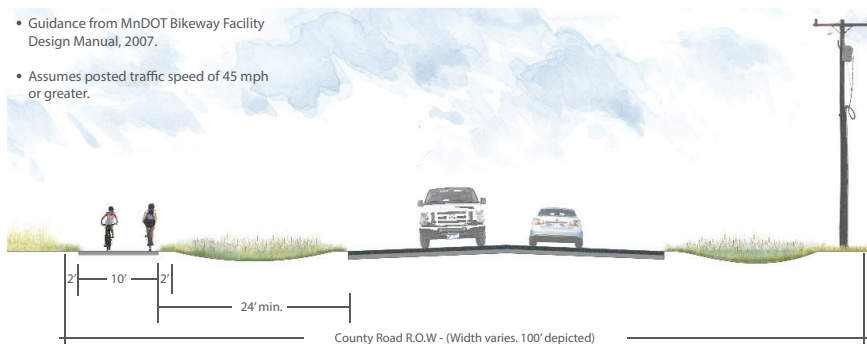


Figure 29: Typical Trail Section

Section 3: Preferred Trail System Network and Implementation Approach

proposed shoulder width of the loop trails varies from 4 feet to 8 feet depending on roadway traffic volumes (Figure 30 - Figure 32). Proposed shoulder widths reflect guidance from the 2007 MnDOT Bikeway Facility Design Manual. Bike sharrows are proposed in limited locations where traffic volumes are low,

and road right-of-way and existing building setbacks are too narrow to accommodate multi-use trails or widened shoulder trails. Bike sharrow roadway pavement markings denote that both vehicles and cyclist are to share the same traffic lane and the desired location of the bicyclist within the travel lane

(Figure 33). Placement of trails on or adjacent to a gravel road was avoided to provide a smoother walking and biking surface and to avoid dust clouds created by passing cars.

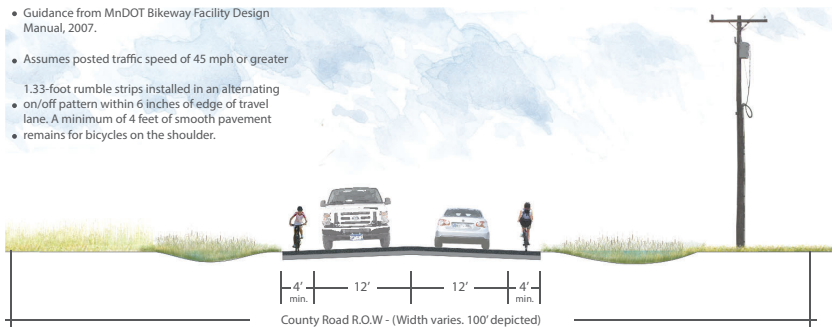


Figure 30: Shoulder Width Guidance: Less than 1000 AADT

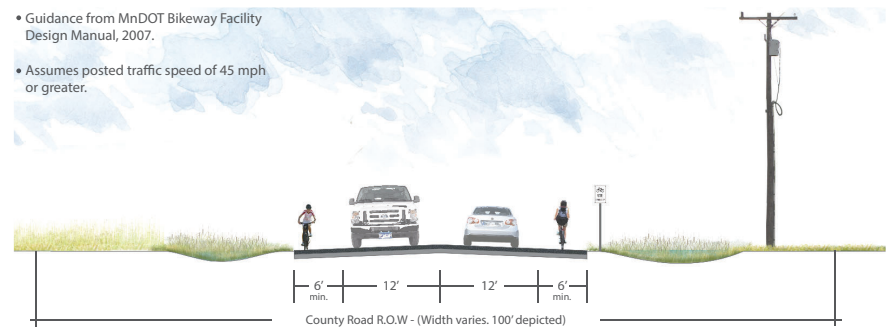


Figure 31: Shoulder Width Guidance: Less than 1000-2000 AADT

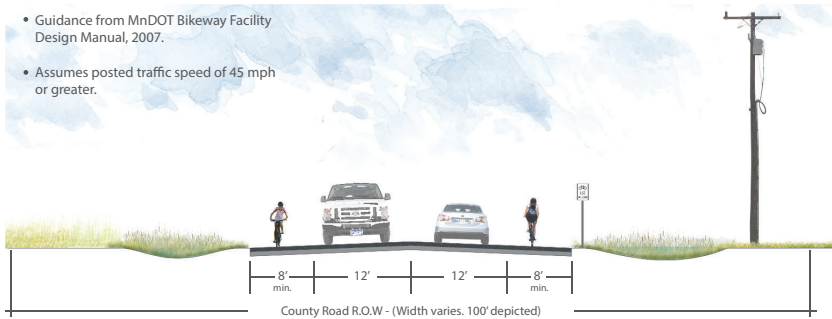


Figure 32: Shoulder Width Guidance: Greater than 2000 AADT

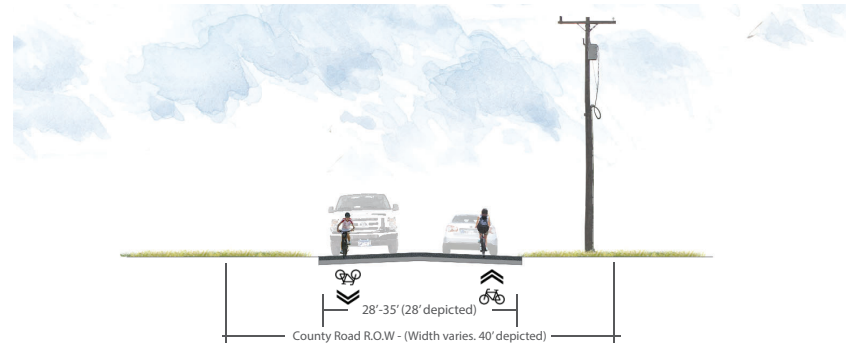


Figure 33: Low Traffic Roads with Narrow Right-of-Way

Preferred Pedestrian and Bicycle Trail System

The resulting preferred pedestrian and bicycle trail system (Figure 34) was created by considering the existing conditions analysis and public input as described in Sections 2 and 5, respectively. The two main components of the preferred pedestrian and bicycle trail system include the alternative Heartland State Trail route and local/regional loops.

Alternative Heartland State Trail Route

The preferred pedestrian and bicycle trail system uses the Heartland State Trail as the spine of the county's trail system. The Heartland State Trail alignment in the preferred plan varies from what was proposed in the 2011 Heartland master plan developed by the DNR as follows:

- » The alternative Heartland State Trail route extends from Osage diagonally through, rather than bypassing, the Smokey Hills State Forest in order to provide trail users the opportunity to experience the forest environment. A recent study determined that the trail alignment through Smokey Hill Forest,

as shown in the alternative Heartland State Trail route, could be constructed to be compliant with Americans with Disability Act (ADA).

- » Routing the trail through the Shoreham and Cormorant communities west of Detroit Lakes as this route offers a highly scenic route, avoids gravel roads, and services an area of the county that has a higher than average population density. The narrow right-of-way through Shoreham is one challenge identified with this alternative Heartland State Trail route. A bike sharrow through Shoreham is recommended because traffic volumes are low, and road right-of-way and existing building setbacks are too narrow to accommodate a multi-use trail or widened shoulder trail. Once funding is secured, the alternative Heartland State Trail route, along with previously identified route options for the Heartland State Trail will require further analysis, evaluation, and public engagement in order to determine the preferred route.

Local/Regional Trail Loops

The preferred pedestrian and bicycle trail system also establishes shorter community loops and larger regional loops comprised primarily of shoulder trails. Existing paved shoulders may require widening to meet MnDOT Bicycle Design Guidelines. Paved roadways with existing gravel shoulders may require widening and will require paving with asphalt to meet MnDOT Bicycle Design Guidelines and desire user comfort.

The bicycle routes identified in this Master Trail Plan are broad trail corridors not specific routes. Likewise, the Heartland State Trail Extension alignment proposed in this Master Trail Plan will require further analysis and coordination with stakeholders. Additional study is needed to affirm the final alignment of the Heartland Trail between Park Rapids and Moorhead. Once funding has been secured for a trail segment, further analysis, design, and public involvement will be required before a facility is constructed. Other facilities such as trailheads, restrooms, benches, and water fountains will be made during the final design process.

Section 3: Preferred Trail System Network and Implementation Approach

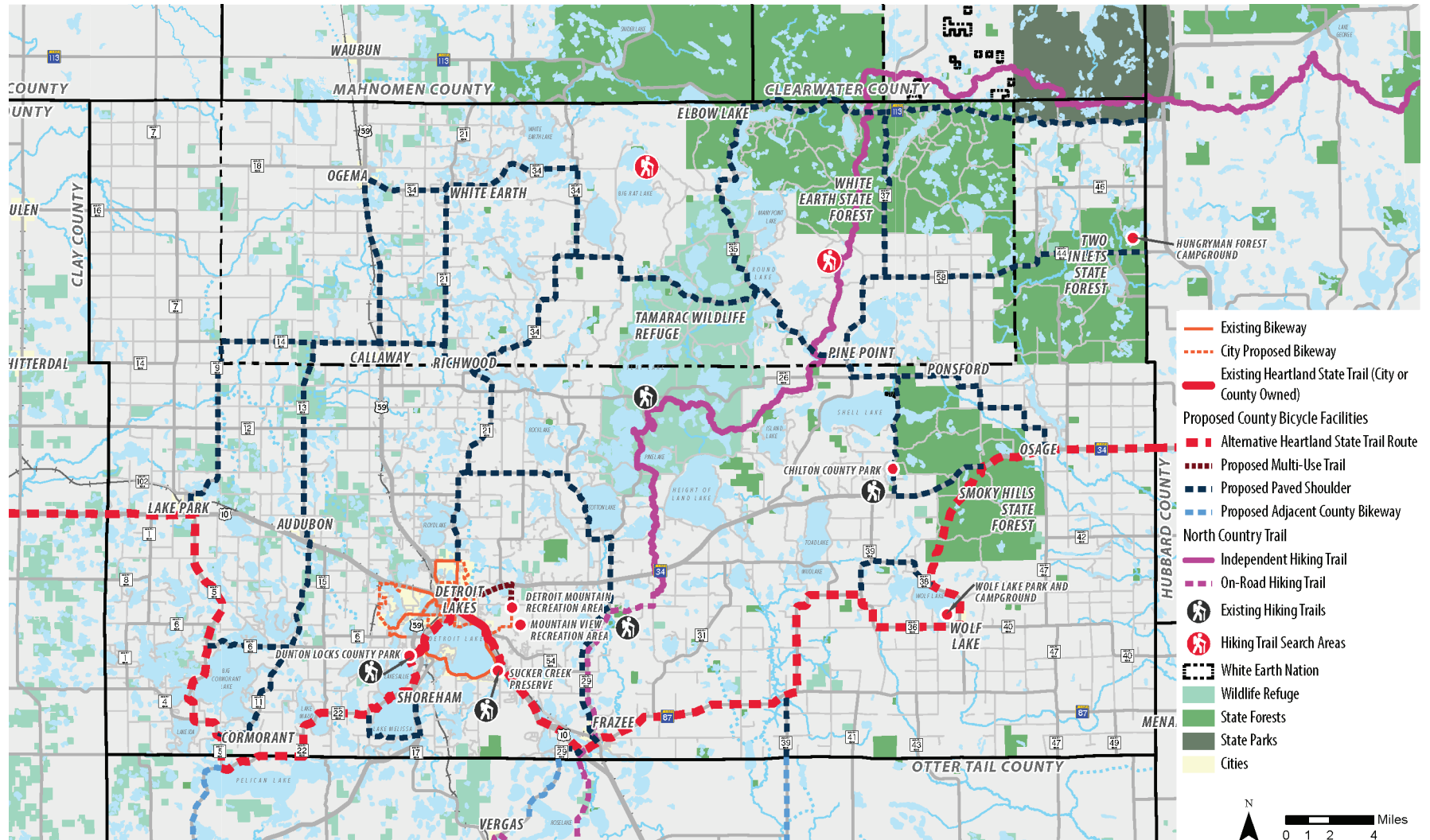


Figure 34: Preferred Bicycle and Pedestrian Facilities

Implementation Priorities

The trail network was informed by desired connections at both the regional scale and the county scale. At a regional scale, the Becker County trail network establishes a strong east-west connection via the alternative Heartland State Trail route. When fully developed, the Heartland State Trail will provide connections to the Paul Bunyan State Trail and Moorhead. Establishing the Heartland State Trail through Becker County is the highest priority because it serves as the “spine” of the county trail network. Next highest priorities for trail development include:

- » Creating an off-road multi-use trail loop between Detroit Lakes, Detroit Mountain Recreation Area and Mountain View Recreation Area. Given numerous recreation opportunities provided by Detroit Mountain and Mountain View Recreation Areas, and their close proximity to the largest city in the county, a multi-use trail loop will provide a safe

and convenient approach for non-drivers to reach these important destinations. It also allows for the recreational experience to include the travel to and from these locations. The City of Detroit Lakes currently is planning to develop a bikeway to these locations. Creating a loop trail experience is an opportunity for a City and County partnership.

- » Creating a county loop comprised of shoulder trails that connect to the Heartland State Trail. This loop would provide a facility for bicycling enthusiasts and provide bicycle access to the Tamarack Wildlife Refuge.
- » Establishing spurs to connect with the Pelican Rapids to Perham Regional Trail and Maplewood State Park in Otter Tail County. While located outside Becker County, these regional recreation destinations are in close proximity to higher density population areas in Becker County.

The remainder of the Becker County trail network is comprised of local/regional bicycle loops that provide both local transportation and recreation (Figure 35 and Figure 36).

Trail System Education

Motorist and bicyclist education is a component to the success and safety of the proposed county-wide trail system. To help promote bicycle safety, MnDOT developed the Share the Road bicycle safety education program. The program educates bicyclist on the importance of following traffic laws and signals and educates motorist on ways to safely drive around cyclists. The county can promote bike safety by providing bike safety information to the public. In addition, schools, non-profits, and private entities can influence bike safety by hosting education events such as skill development courses for both cyclist and motorists. Education programs often increase the number of cyclists and decreases the amount of accidents in communities.

Section 3: Preferred Trail System Network and Implementation Approach

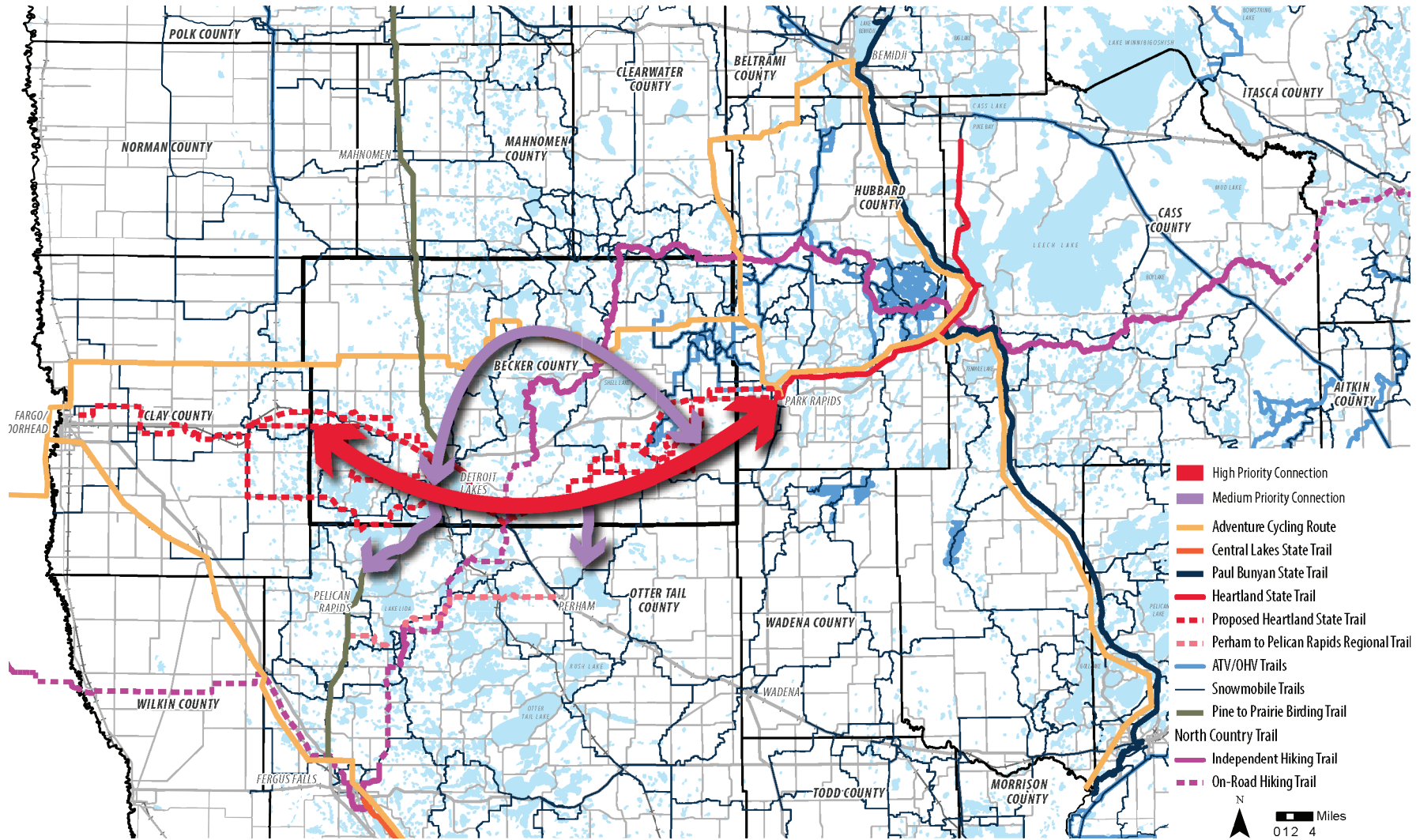


Figure 35: Regional Trail Connection Priorities

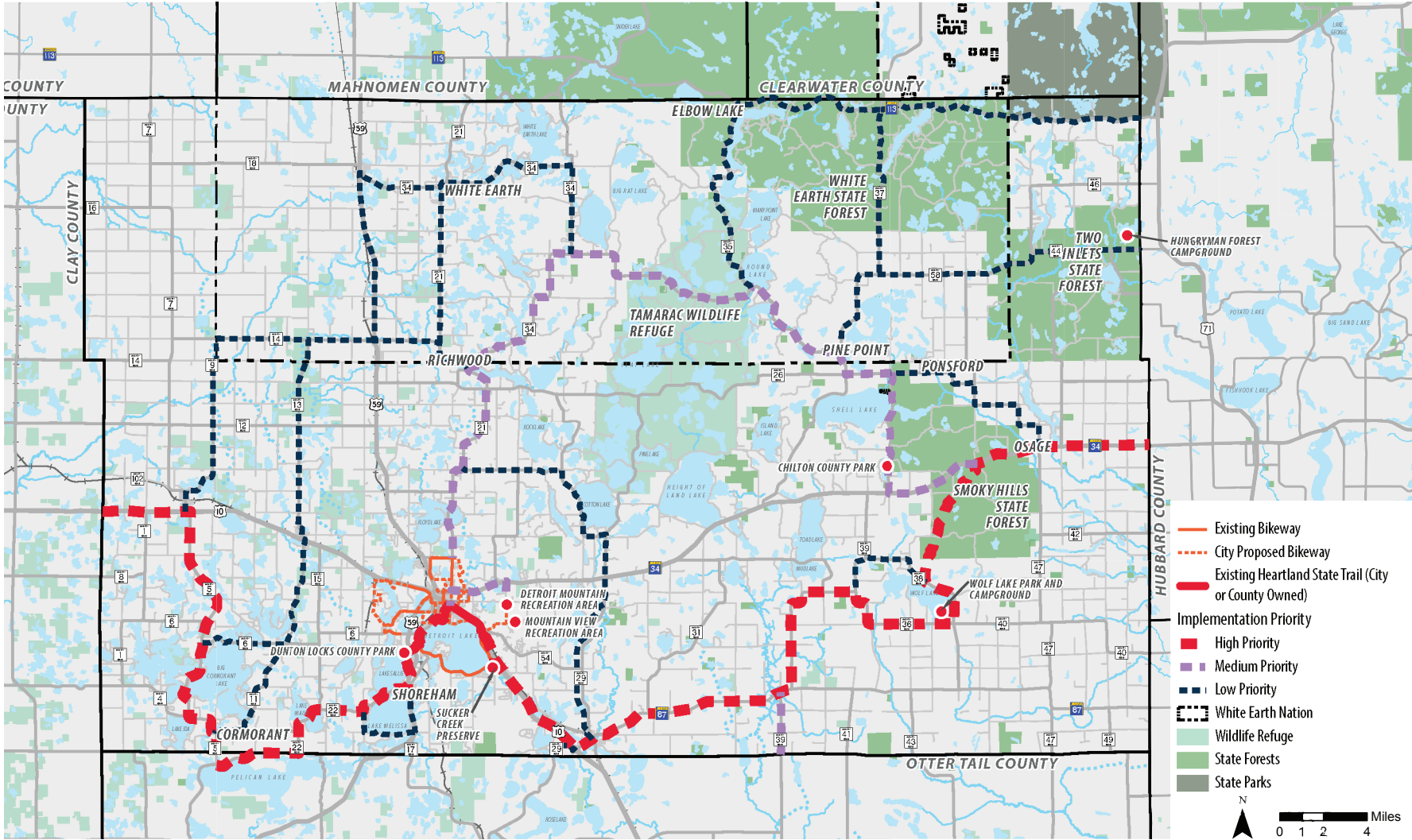


Figure 36: Preferred Bicycle and Pedestrian Facilities Implementation Priorities

Trail System Enforcement

The DNR will be primarily responsible for law enforcement on the Heartland State Trail as they will own and operate the trail. The DNR may seek law enforcement assistance from local cities and counties. Other trails proposed in the bicycle and pedestrian plan will be overseen by Becker County. Rules and restrictions will be placed on the type of activities that may occur on the proposed trail system. The trails should prohibit motorized vehicles from traveling on the multi-use trails when snow is not present.

OTHER NON-MOTORIZED TRAILS

Mountain Bike Trails

Additional mountain bike trails will be developed through the initiative of local clubs/organized groups who commit to trail facility development and on-going maintenance. The county may assist with grant applications if approached by organized groups who will commit to the maintenance and development of a new trail. The Lakes Area Mountain Bike Alliance & Trails (LAMBAT) is a non-profit educational association whose mission is

to create, enhance and preserve mountain bike trails in Becker County. It is expected that county mountain bike trail development efforts will focus on the continued expansion of trails at Detroit Mountain Recreation Area and Mountain View Recreation Area. Long-term mountain bike search area locations identified through public engagement are depicted in Figure 37.

Equestrian Trails

Equestrian users in the county have expressed interest in developing better trailhead facilities that accommodate trailer parking. There has also been interest expressed in developing equestrian trails in state forests and county lands (Figure 37). Becker County will work with the DNR to develop equestrian trails and support facilities within state forests (and potentially county tax forfeited land) through the DNR's horse pass program. The Heartland Trail Master Plan developed by the DNR in 2011 identifies horseback riding as a recommended user of the state trail wherever it is feasible to develop a horse treadway parallel to the primary walking and biking treadway.

Cross Country Ski Trails

Existing cross country ski facilities in Becker County accommodate current cross country ski needs of county residents and visitors. Therefore, no additional cross country ski trails are proposed in this plan (Figure 37). The county will continue to rely on private resorts and the DNR for continued maintenance and development of cross country ski trails. A desire was expressed during public engagement for a lit cross country ski trail to accommodate evening skiing, particularly on week nights. The county should investigate the feasibility of providing lighting along an existing county managed trail.

Existing and Proposed Water Trails

The Otter Tail River State Water Trail is currently a DNR designated water trail. The Master Trail Plan identifies the Historic Steam Boat Route and the Straight River as two potential additional water trails (Figure 37). The Historic Steamboat Route extends from Detroit Lake to Pelican Lake. Access to the water trail will be provided through existing public water accesses located throughout the corridor. The

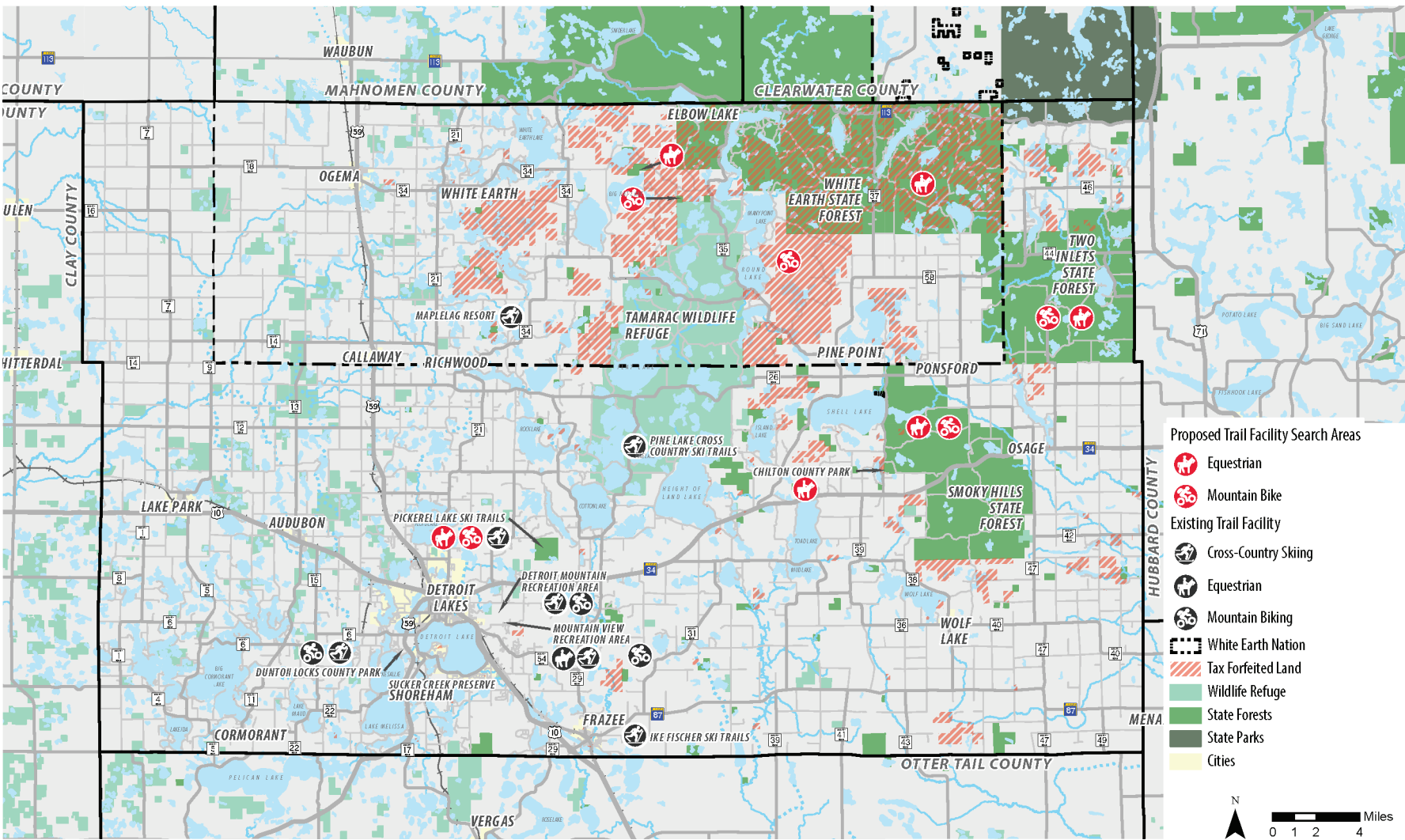


Figure 37: Other Non-Motorized Trails

Section 3: Preferred Trail System Network and Implementation Approach

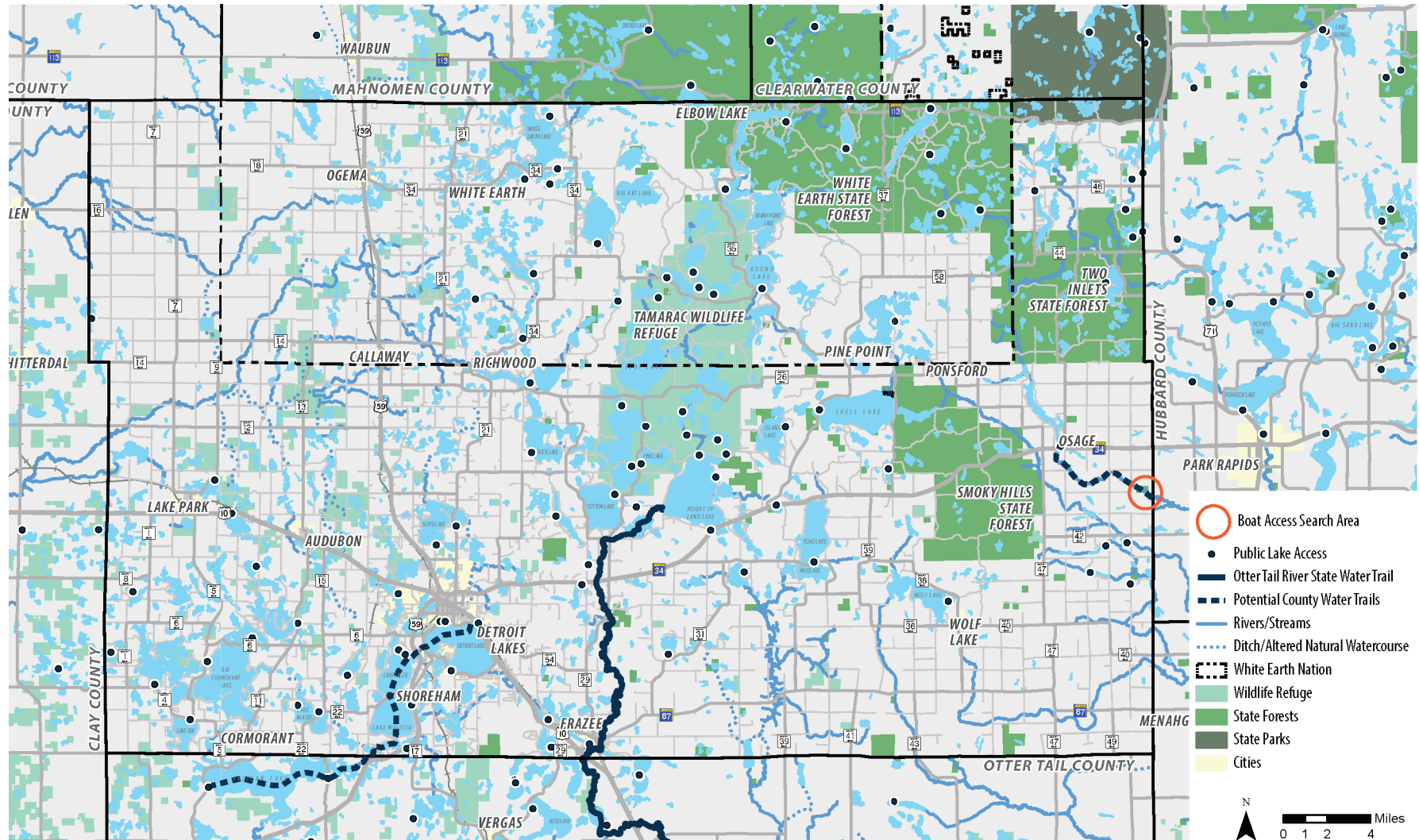


Figure 38: Existing and Proposed Water Trails

Straight River Water trail extends from Osage to the Hubbard County line. The only public boat access to the Straight River in Becker County is in Osage. A boat access search area has been identified in the vicinity of the county line. Becker County will work with the DNR to determine the feasibility of designating the Historic Steam Boat Route and the Straight River as a state water trails. The Straight River east of Osage is a designated trout river by the DNR. Additional investigation will be required

to determine if a state water trail is feasible on a trout stream.

MOTORIZED TRAILS

Roadway Recreation Corridors

The existing roadway recreation corridors located in Becker County appear to meet the needs of residents. No additional roadway recreation corridors are proposed in this Master Trail Plan (Figure 13).

ATV Trails

Existing ATV trails are depicted in Figure 14. Additional designated and officially mapped ATV trails within Becker County will follow the DNR grant-in-aid process. This process relies on the initiative of local clubs to design, construct and maintain ATV trails. As part of this process, clubs must obtain a local government unit sponsor for the trail and gain permission from property owners on which the trail will pass, and all parties must agree to



Section 3: Preferred Trail System Network and Implementation Approach

the location of the trail. As part of this process, the county will consider the designation and mapping of new ATV trails on tax forfeited land and within county road rights-of-way upon meeting grant-in-aid requirements and upon approval by the township(s) the proposed trails will pass through.

Snowmobile Trails

Existing snowmobile trails in the county are currently developed and maintained by local snowmobile clubs through the DNR grant-in-aid trails process (Figure 13). The county supports continued snowmobiling in the county using the existing programs. The implementation of the Heartland State Trail is a high priority. Upon the trail's completion, during winter months, snowmobiles without studs will be allowed to use it. Policies set by local cities will determine whether snowmobiles will be allowed on the Heartland State Trail within city limits.

A summary of the approach taken to implement the trails addressed in the Master Trail Plan can be found in Table 2.

Trail Type	How Addressed in Master Plan
Bicycle and Pedestrian	County will work to develop and maintain a network of paved multi-use trails and widened roadway shoulders.
Hiking	County is supportive of North Country National Scenic Trail that is partially developed and maintained by the North Country Trail Association, administered through the National Park Service. Existing site based hiking trails and future hiking search areas are identified.
Birding	The county is supportive of the Pine to Prairie Birding Trail, which is funded and operated through a unique partnership between a number of communities, the Canadian Province of Manitoba, Federal and State agencies, and not-for-profit organizations.
Mountain Biking	Additional mountain bike trails will be developed through the initiative of local clubs/organized groups who commit to trail facility development and on-going maintenance.
Equestrian	The county will work with the DNR and equestrian enthusiasts to develop equestrian trails and support facilities within state forests (and potentially county tax forfeited land) through the DNR's horse pass program. The Heartland State Trail will have equestrian trails/facilities adjacent to the paved trail where feasible.
Cross Country Skiing	Existing cross country ski facilities in Becker County accommodate current needs of county residents and visitors. The county will investigate the feasibility of lighting a trail to extend the use into the evening.
Water Trails	Two water trails are proposed in this plan. Becker County will work with the DNR to determine the feasibility of designating the Historic Steam Boat Route and the Straight River as a state water trails. The existing Otter Tail River State water trail will continue to be maintained by the MN DNR.
Roadway Recreation Corridors	The existing roadway recreation corridors located in Becker County meet the needs of residents. No additional roadway recreation corridors are proposed in this Master Trail Plan.
All Terrain Vehicles (ATV)	Additional designated and officially mapped ATV trails within Becker County will follow the DNR grant-in-aid process.
Snowmobile	Existing snowmobile trails in the county will continue to be developed and maintained by local snowmobile clubs through the DNR grant-in-aid trails process. When the Heartland State Trail is completed, during winter months, snowmobiles without studs will be allowed to use it.

Table 2: Implementation Approach

ESTIMATED IMPLEMENTATION COSTS

Bicycle and Pedestrian Trail Network

The bicycle and pedestrian trail plan has both initial costs (acquisition and development) and on-going costs (operations and maintenance). Trail development will occur as opportunities to coordinate with other projects and agencies arise and as funding becomes available. Individual trail segments may be constructed faster than planned if trail development can coincide with a roadway project or a development project along a proposed trail route, or if grant funds are secured.

Boundaries and Acquisition Costs

The bicycle and pedestrian trail plan currently assumes construction within county public right-of-way which minimizes the need for property easements or acquisitions. Should final design locate bicycle and pedestrian trail facilities in roadway corridors outside of the county's jurisdiction, coordination and agreements with appropriate jurisdictional agencies will be required.

Multi-use Trail Costs

Estimated costs to implement multi-use trails include site preparation, drainage channel modifications where necessary, trail paving, and the installation of signage, striping and landscaping. For planning purposes, multi-use trails are estimated to cost \$500,000 (2019 dollars) per mile to construct.

Roadway Shoulder Costs

Trails located on roadway shoulders may be comprised of two cost components. If a roadway shoulder requires widening, there will be a cost associated with grading the wider shoulder, which for high-level planning purposes is estimated at \$30 a square yard. This estimated cost does not include potential right-of-way acquisition, trail easements, wetland mitigation, or utility modifications or extensions. The second cost component to construct a road shoulder trail relates to paving the shoulder with bituminous pavement at widths needed to meet MnDOT Bikeway Facility Design Manual guidelines. The estimated cost per square yard to pave a shoulder is \$35. This cost includes bituminous pavement with an aggregate base.

Operating Costs

After the trail is fully developed, maintenance and operating costs will be covered by Becker County. Annual routine maintenance costs for a multi-use trail are estimated to be \$1,100 per mile in 2019 dollars. This cost includes expenses for sweeping, sign maintenance, mowing, and minor trail repair. Additional costs for trail preservation and rehabilitation activities, such as surface repairs, crack filling, and striping replacement, will depend on trail conditions identified through routine seasonal inspections.

Facility Modifications

Figure 39 depicts the anticipated widths associated with the roadway shoulder routes. Roadway shoulder widths are based on guidances in the 2007 MnDOT Bikeway Facility Design Manual based on traffic volumes and posted speeds. Figure 40 depicts potential roadway shoulder widening needed to meet MnDOT Bikeway Design Manual guidelines.

FUNDING SOURCES

Bicycle and Pedestrian Trail Construction

Becker County has several funding options available to help cover the development cost of the trails proposed in the Bicycle and Pedestrian trail concept. Potential funding sources may include:

- » State bonding
- » Federal Transportation Alternatives, which includes Safe Routes to School, funding available through the Federal Fixing America's Surface Transportation (FAST) Act
- » Minnesota Parks and Trails Legacy Grant Program administered through the Greater Minnesota Regional Parks and Trails Commission

- » Minnesota Department of Natural Resources
 - Regional Trail Grant Program
 - Local Trail Connections Program
- » County State Aid construction funds
- » Health related organizations
 - Partnership 4 Health
 - Blue Cross Blue Shield
- » Local county funds
- » Public-private partnerships

Annual Operations and Maintenance

Costs associated with operating and maintaining the county-wide trail network will be funded by Becker County. The county could consider obtaining assistance with maintenance of multi-use trails from local civic groups and clubs through a trail segment sponsorship program.

Mountain Bike and Equestrian Trails

There are several potential funding sources for developing mountain bike and equestrian trails. Potential funding sources include:

- » Minnesota Department of Natural Resources
 - Horse Pass Program (Equestrian Trail)
 - Outdoor Recreation Grant Program (Mountain Bike Trails)
- » County funds
- » Public-private partnerships

It is also anticipated that assistance with maintenance will come from local civic groups and clubs.

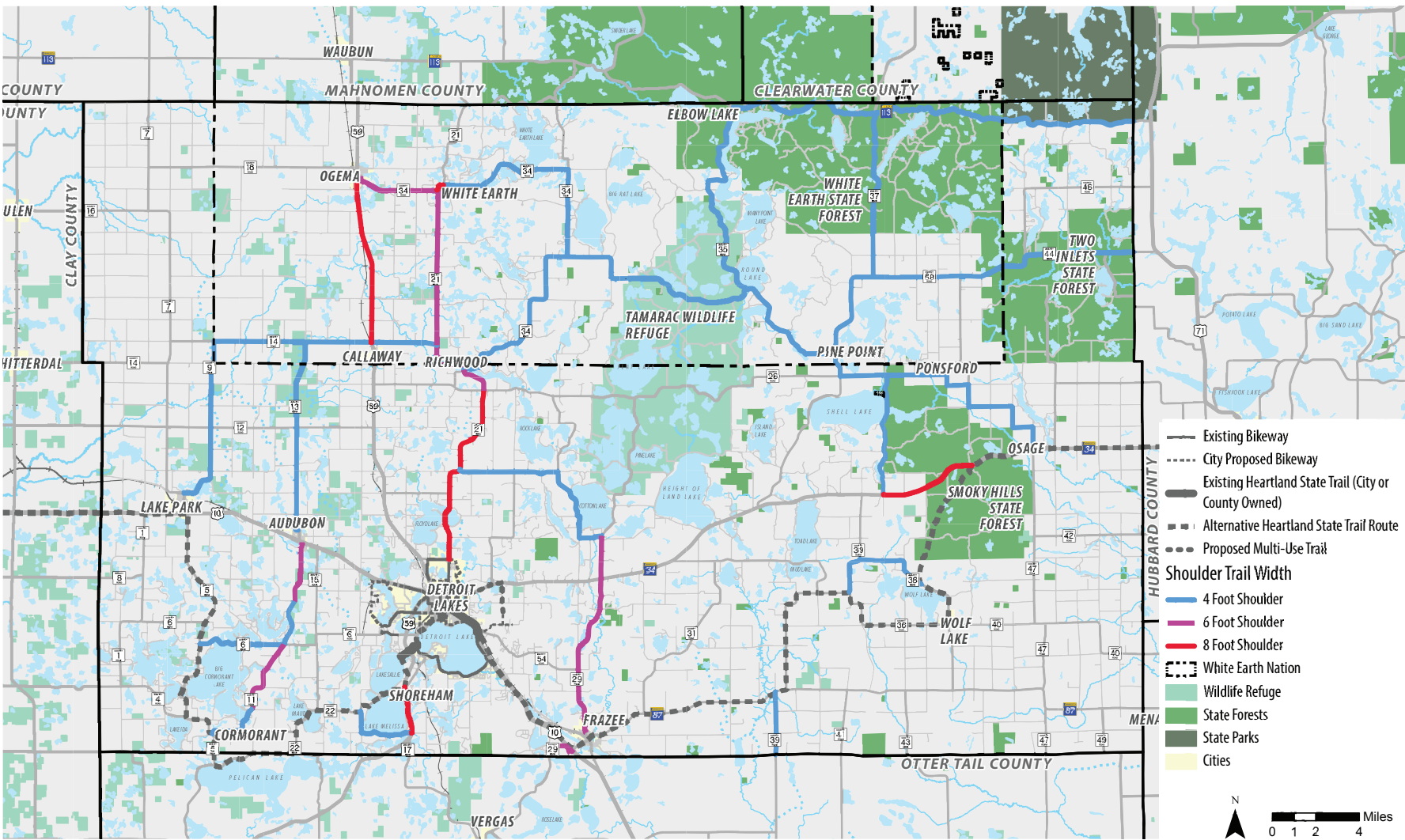


Figure 39: Shoulder Width Required

Section 3: Preferred Trail System Network and Implementation Approach

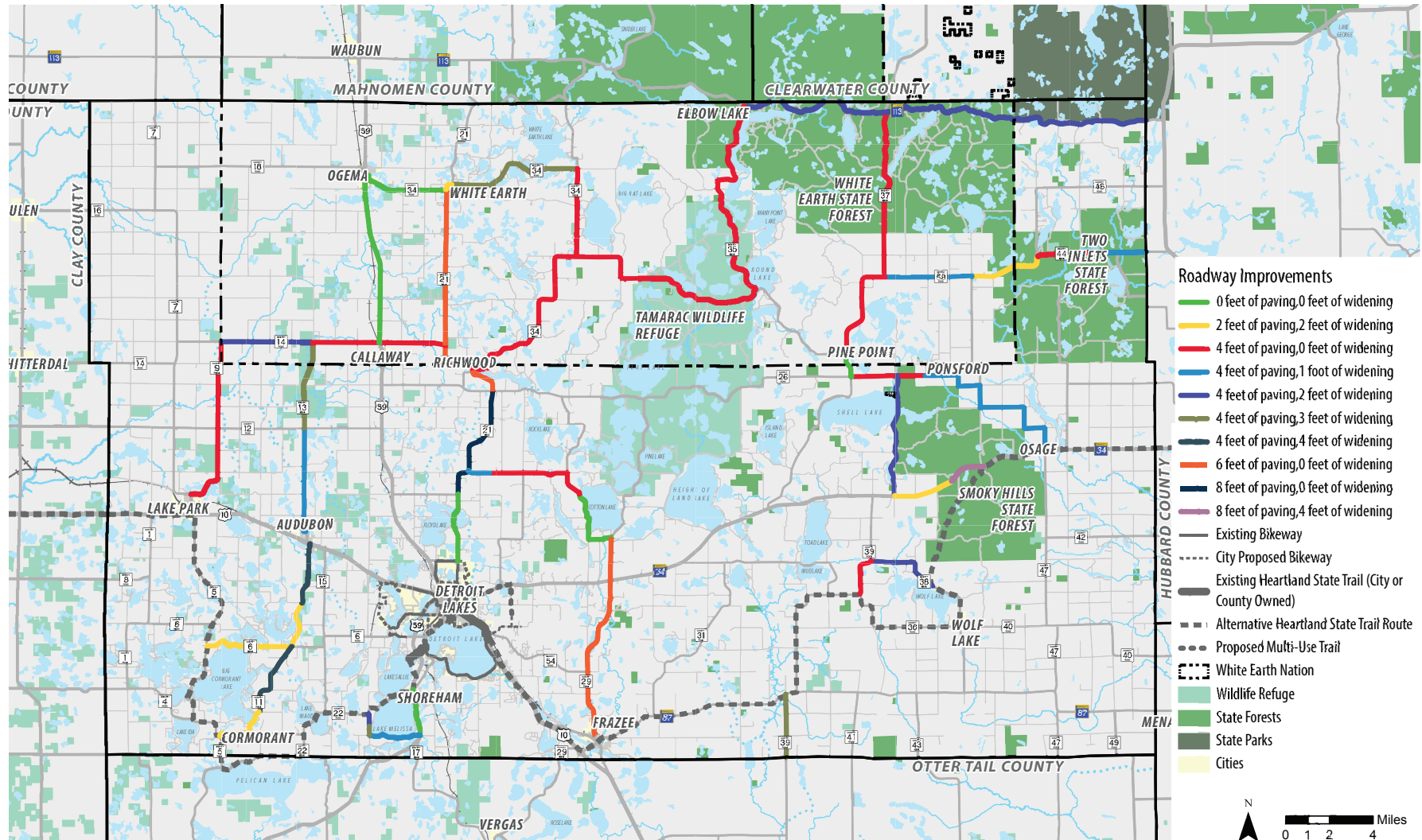


Figure 40: Shoulder Widening Requirements

Water Trails

There are several potential funding sources for developing the two proposed water trails, including:

- » Minnesota Department of Natural Resources
 - Outdoor Recreation Grant Program (Boat Access)
- » County funds
- » Public-private partnerships

ATV and Snowmobile Trails

ATV and snowmobile trails will be funded through the DNR grant-in-aid program which includes maintenance by the clubs participating in the program.

Section 3: Preferred Trail System Network and Implementation Approach

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SECTION 4: DESIGN GUIDANCE RESOURCES

This section provides resources that provide design guidance for the various trail types included in this Master Trail Plan. This list is not an exhaustive list, but rather can be used as a reference starting point for general information when trail segments move forward into design development and final design.

GENERAL TRAIL DESIGN GUIDELINES

Americans with Disabilities Act (ADA)

In accordance with the ADA and the Federal Highway Administration, everyone should have the opportunity to experience and enjoy the natural environment. People with and without disabilities, older people, families, and children all benefit from being able to enjoy parks and trails. To the maximum extent feasible, trails should be designed to accommodate the access needs of all users. Accessibility is important when designing trails and includes installing accessible built facilities such as wheelchair-accessible toilets

and drinking fountains at restroom facilities and rest stops.

Park and open space recreation features should be designed in compliance with the following accessibility design standards and guidelines:

- » Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- » Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)

Sustainable Design Guidelines

With limited resources available for the construction and maintenance of public recreation facilities, it is important they be designed in a sustainable manner. Sustainable designs work with natural systems, thus maintaining or restoring habitat and reducing long term cost of operations and maintenance. Popular design guidelines for sustainable landscape design include the following:

- » The Sustainable SITES Initiative, by Green Business Certification Inc.
- » Guidelines for Managing and Restoring Natural Plant Communities along Trails and Waterways, by Minnesota Department of Natural Resources, 2004

TRAIL GUIDELINES

The county trail network should be designed in accordance with the following design standards and guidelines:

Bicycle Guidelines

- » Guide for the Development of Bicycle Facilities, by the American Association of State Highway and Transportation Officials (AASHTO), 2012 (Note: at the time of this report, AASHTO is in the process of updating the guide)
- » MnDOT Bikeway Facility Design Manual, by Minnesota Department of Transportation (MnDOT), March 2007
- » State Aid Rule 8820.9995 Minimum Bicycle Path Standards, State Aid for Local Transportation Division

Section 4: Design Guidance Resources

- » Design Development Guidelines, by Minnesota Department of Natural Resources, Parks and Trails Division, 2007
- » Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), by MnDOT, February 2015
- » Urban Bikeway Design Guide, by National Association of City Transportation Officials (NACTO), 2010

Pedestrian Guidelines

- » AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition, by American Association of State Highway and Transportation Officials, 2004
- » Pedestrian Facilities User Guide – Providing Safety and Mobility. Publication No. FHWA-RD-01-102, by U.S. Department of Transportation Federal Highway Administration, March 2002

Mountain Bike Trail Guidelines

- » Guidelines for a Quality Trail Experience. Mountain Bike Trail Guidelines, by International Mountain Bicycling Association and US Department of the

Interior Bureau of Land Management, 2017

- » Trail Solutions: IMBA's Guide to Building Sweet Singletrack, 2004
- » Planning and Managing Environmentally Friendly Mountain Bike Trails, 2006
- » Managing Mountain Biking: IMBA's Guide to Providing Great Riding, 2007

Equestrian Trail Guidelines

- » Trail Planning, Design, and Development Guidelines, by Minnesota Department of Natural Resources, Parks and Trails Division, 2007
- » Equestrian Trail Guidelines for Construction and Maintenance, Missouri Department of Conservation, 2007

Cross Country Ski Trail Guidelines

- » Trail Planning, Design, and Development Guidelines, by Minnesota Department of Natural Resources, Parks and Trails Division, 2007

Water Trail Guidelines

- » Developing Water Trails in Iowa. Practical Guidelines and Templates for Planning,

Site Design, Signage, and Construction in the State of Iowa, June 2010

Snowmobile Trail Guidelines

- » Minnesota Snowmobile Trails Assistance Program Maintenance and Grooming Manual, by Minnesota Department of Natural Resources, 2013
- » Trail Planning, Design, and Development Guidelines, by Minnesota Department of Natural Resources, Parks and Trails Division, 2007

ATV Trail Guidelines

- » Trail Planning, Design, and Development Guidelines, by Minnesota Department of Natural Resources, Parks and Trails Division, 2007
- » Off-Highway Motorcycle & ATV Trails: Guidelines for Design, Construction, Maintenance, and User Satisfaction, 2nd Edition, by American Motorcyclist Association, 1994
- » ATV Association of Minnesota (ATVAM)

SECTION 5: PUBLIC INPUT

PUBLIC ENGAGEMENT ROUND 1

The purpose of the first round of public input was to gain input from community members on where they would like to see trails developed in the County. The first round of public input included a public Open House located in the Detroit Lakes Public Library on June 24, 2019, a pop up event at the White Earth Nation Pow Wow on June 13, 2019, and online engagement using a Wiki Map from June 27, 2019 to July 15, 2019. The information gained through the first round of public input was used to develop several trail concepts that was presented at the second open house in August.

- » Pow Wow Event
- » Open House 1
- » Online Engagement: Round 1

PUBLIC ENGAGEMENT ROUND 2

The purpose of the second round of public input was to gain input from the community on several trail concepts. The second round of public input included a public Open House located in the Detroit Lakes Public Library on August 21, 2019, a pop up event at the County Fair from August 7 through 10, and an online survey from August 7 through September 5, 2019. The information gained through the second round of public input will be used to develop a preferred trail concept.

- » County Fair Booth
- » Open House 2
- » Online Engagement: Round 2

PUBLIC ENGAGEMENT ROUND 3

The purpose of the third round of public input was to give the public the opportunity to comment on the draft master plan report. The report was posted on the County's website and the public was given an open comment box to express what they liked and disliked about the plan.

- » Online Engagement: Round 3

SUMMARY OF OPEN HOUSE 1

The open house included a short presentation followed by a time for community members to mark on maps where popular destinations are and where they would like to see trails developed.

Verbal Comments

- » The DNR requires permits and for any trail development.
- » Horse riding is dangerous on high speed roads. Cars can scare horses which could cause the horse to jump into the travel lane.
- » ATV trails are open from May 1 to November 1
- » Don't ban e-bikes on trails. E-bikes help expand the user group of trails
- » Mountain biking on ATV trails in Smokey Hills State Forest is enjoyable. Steep downhills and tight corners can be dangerous due to poor sight lines. Adding a simple single track bypass around these areas would make the trails safe for mountain bike users.

Written Comments Received

- » Multi-use trails should be “non-motorized”. No ATVs and no horses should be allowed on multi-use trails.
- » County HWY 6 could use a better shoulder. It is used by road cyclists and gravel trucks.
- » County HWY 17 to Vergas would be a great project to partner with Otter Tail County. Vergas is a charming little community. Vergas could be a “hot” destination for cyclists but there is no shoulder on roadways.
- » The roads around Lake Melissa, Sallie, and Fox are quite narrow and are used by bikers, runners, and walkers. Lots of overcrowded driveways on Melissa Drive (around the lake) can be hazardous.
- » The Cormorant area is also a popular destination for road cyclists and very few roads with shoulders. Would like to see a few more trails for a more inviting experience to cyclist of all ages.
- » Designated bike trail to Tamarac either utilizing County Road 21, County Road 25, and County Road 29. Connect Tower

Road proposal to Detroit Lakes using Otto Zeck Road and Highway 34.

- » Utilize Smoky Hills with proposed extension of Heartland State Trail.
- » Designated bike trail around Cormorant Lake, Lake Melissa, and Lake Sallie.
- » Do not restrict bike use on any bike trails. Promote e-bike use. Allow class 3 e-bike use on all trails.
- » Please try to make city limits more bike and pedestrian friendly for transportation to work/shopping/dining without a vehicle.
 - » Multi-use trails separate from parking and driving lanes.
 - » Appropriate timing on cross signals.
 - » Designated crossings.
 - » Bike racks.
 - » Plow sidewalks and trails.

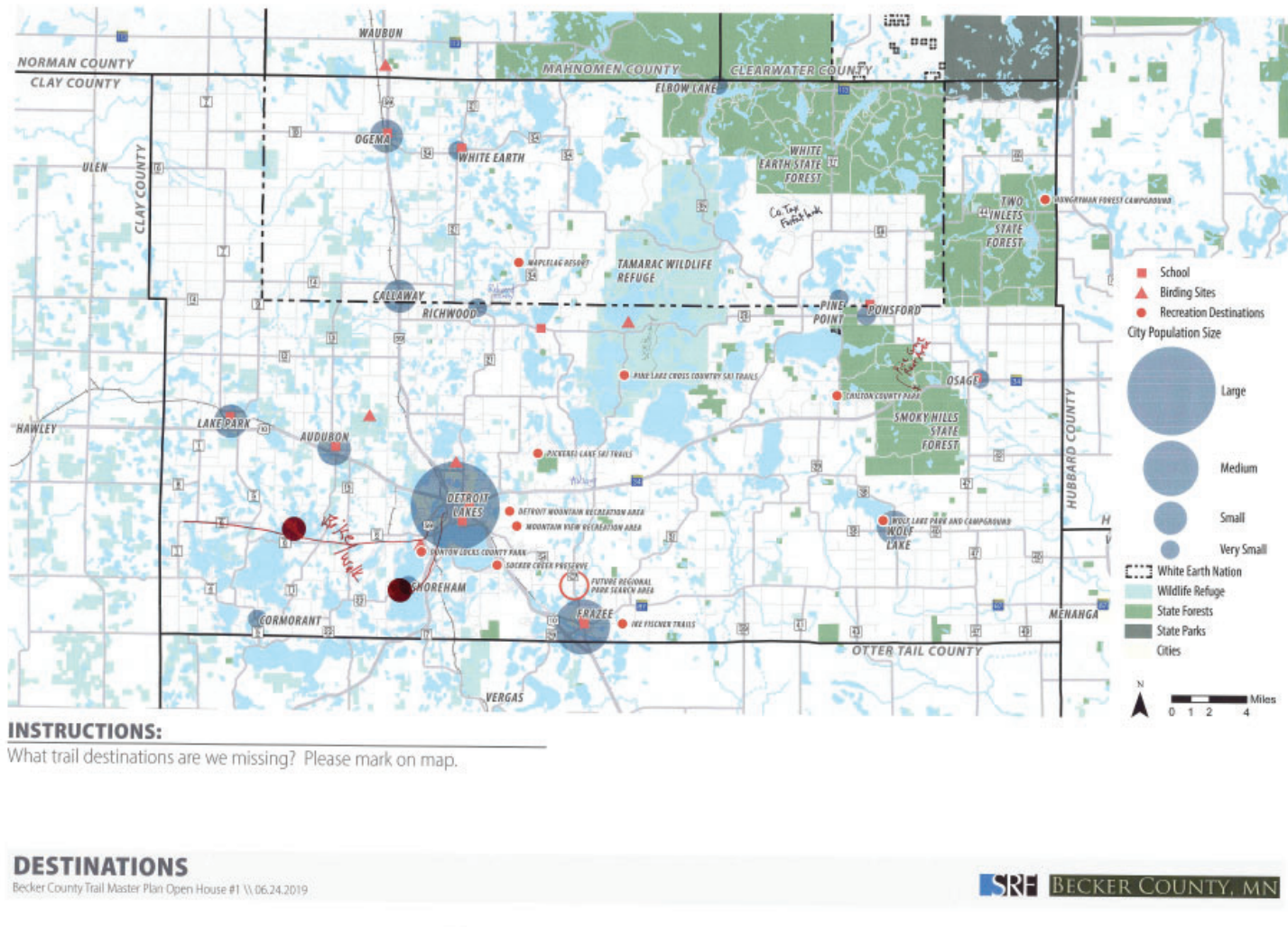


Figure 41: Public Input Received at Open House 1

Section 5: Public Input

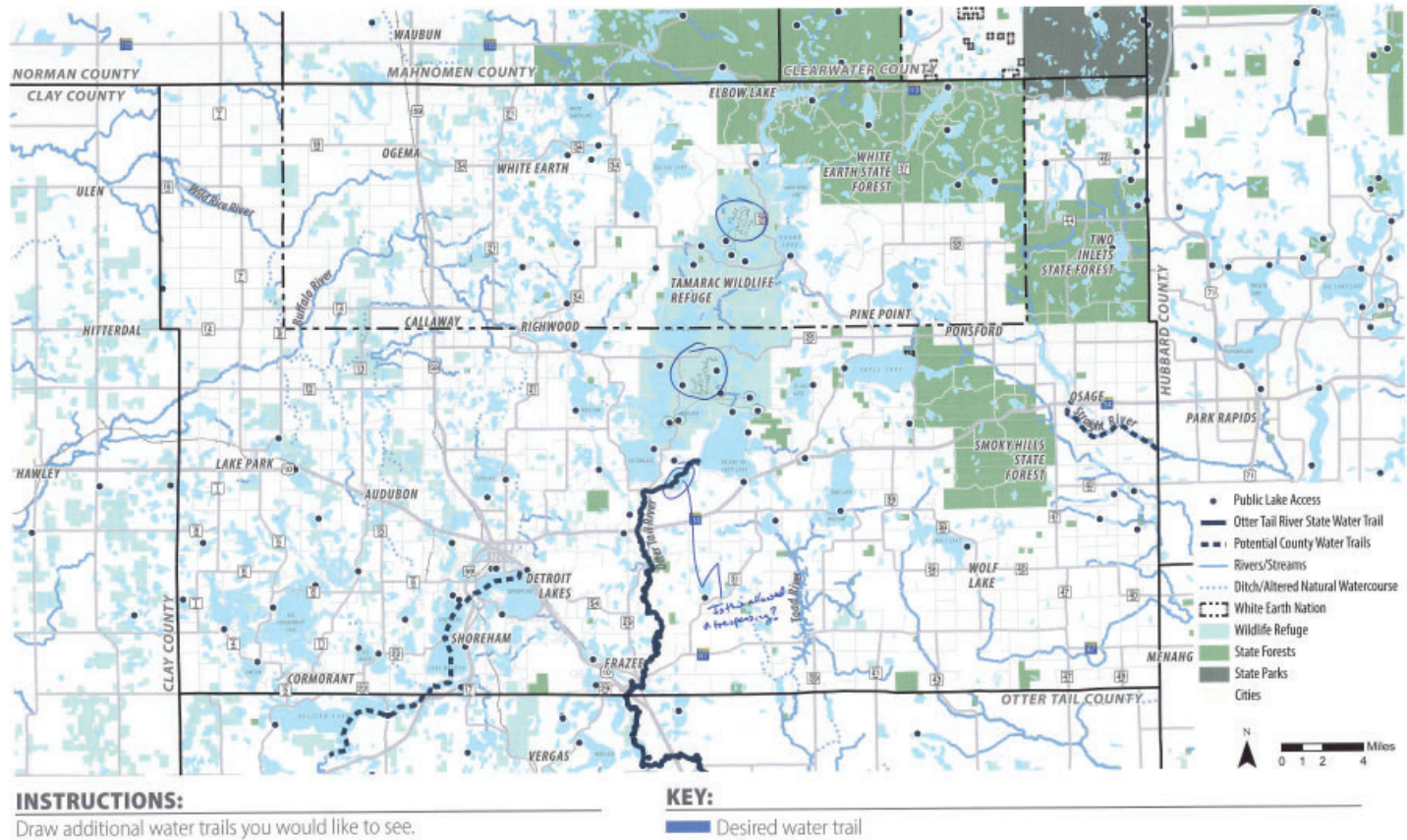
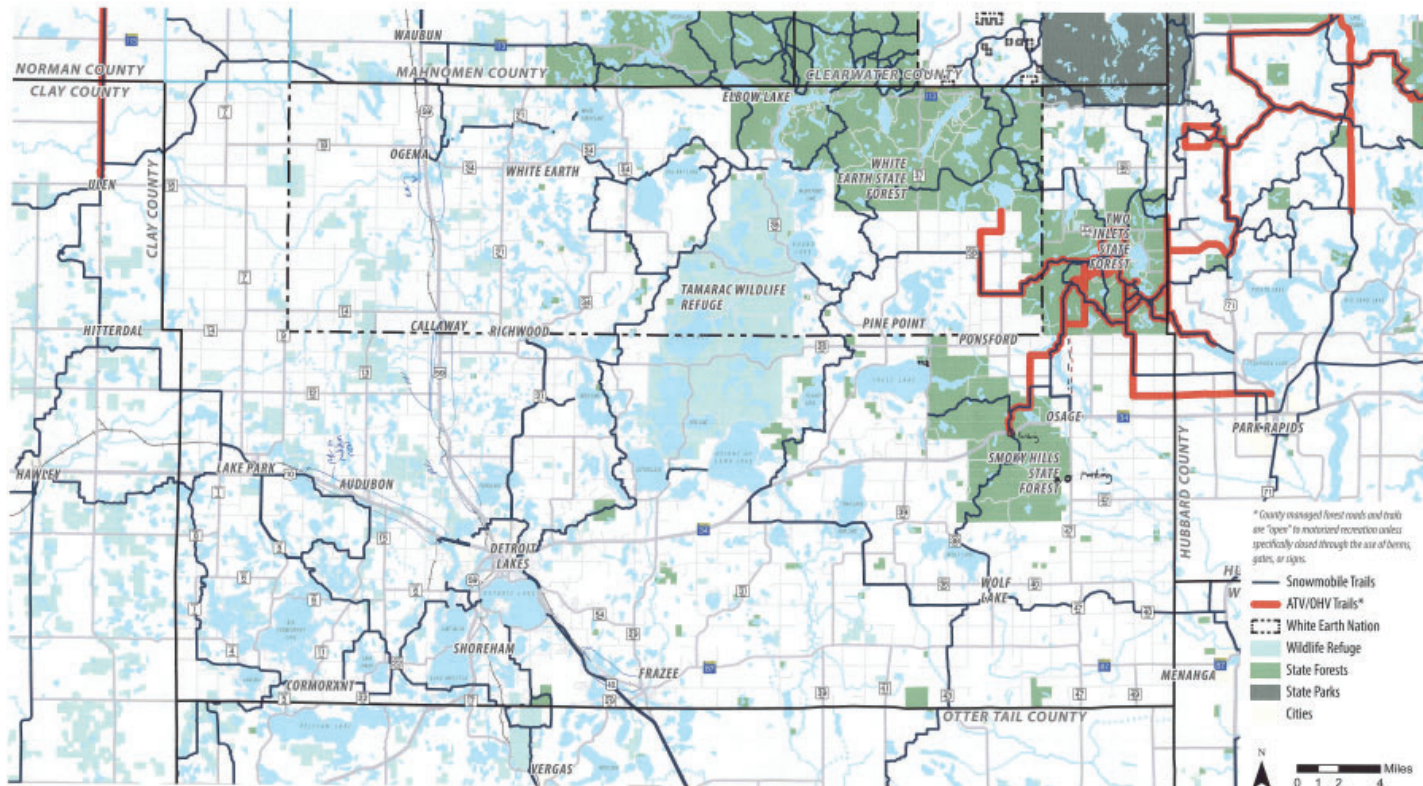


Figure 42: Public Input Received at Open House 1



INSTRUCTIONS:

Draw additional snowmobile & ATV/OHV trails you would like to see.

KEY:

- Desired snowmobile trail
- Desired ATV/OHV trail

SNOWMOBILE & ATV/OHV TRAILS

Becker County Trail Master Plan Open House #1 \.06.24.2019

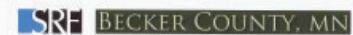


Figure 43: Public Input Received at Open House 1

Section 5: Public Input

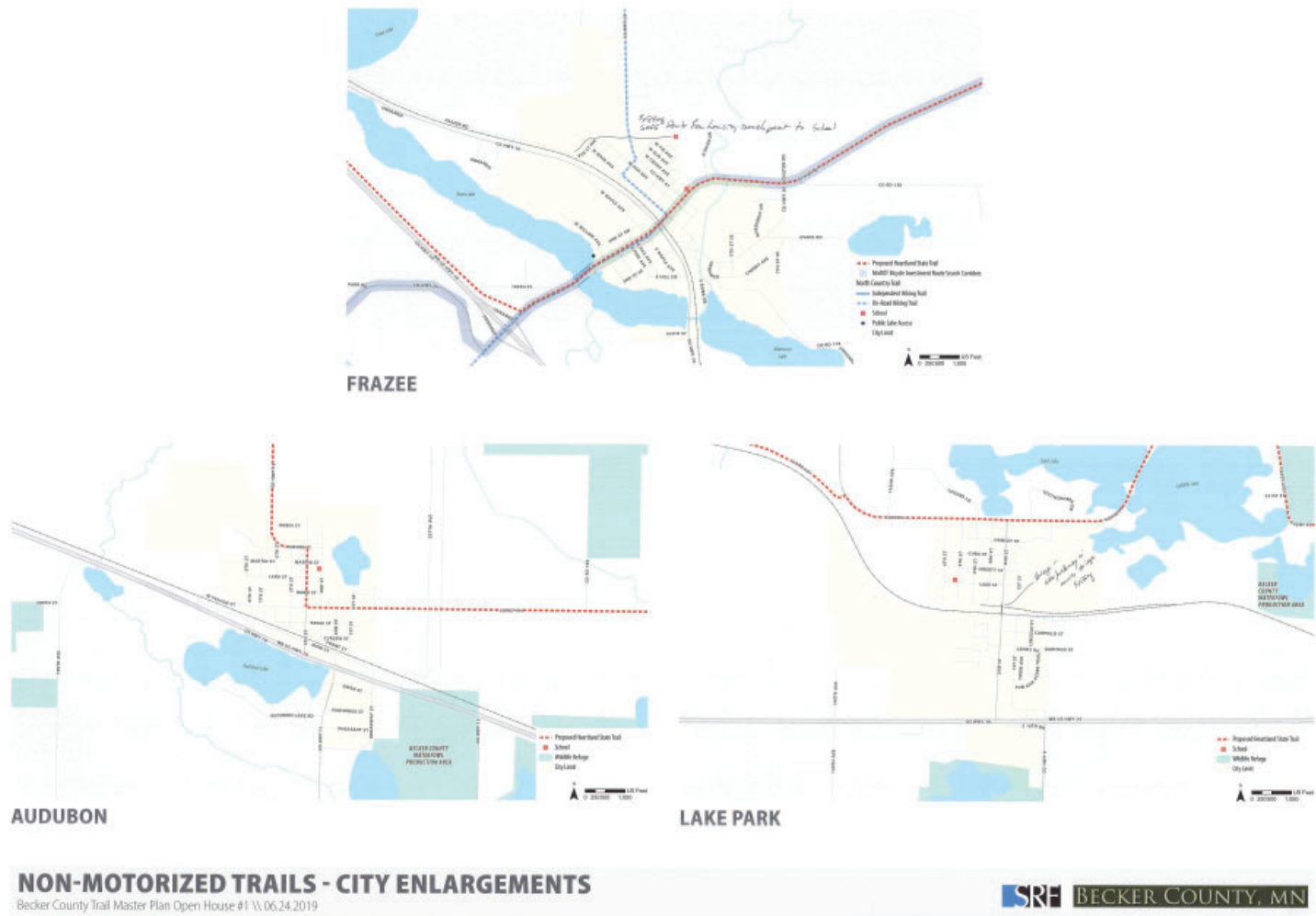


Figure 44: Public Input Received at Open House 1

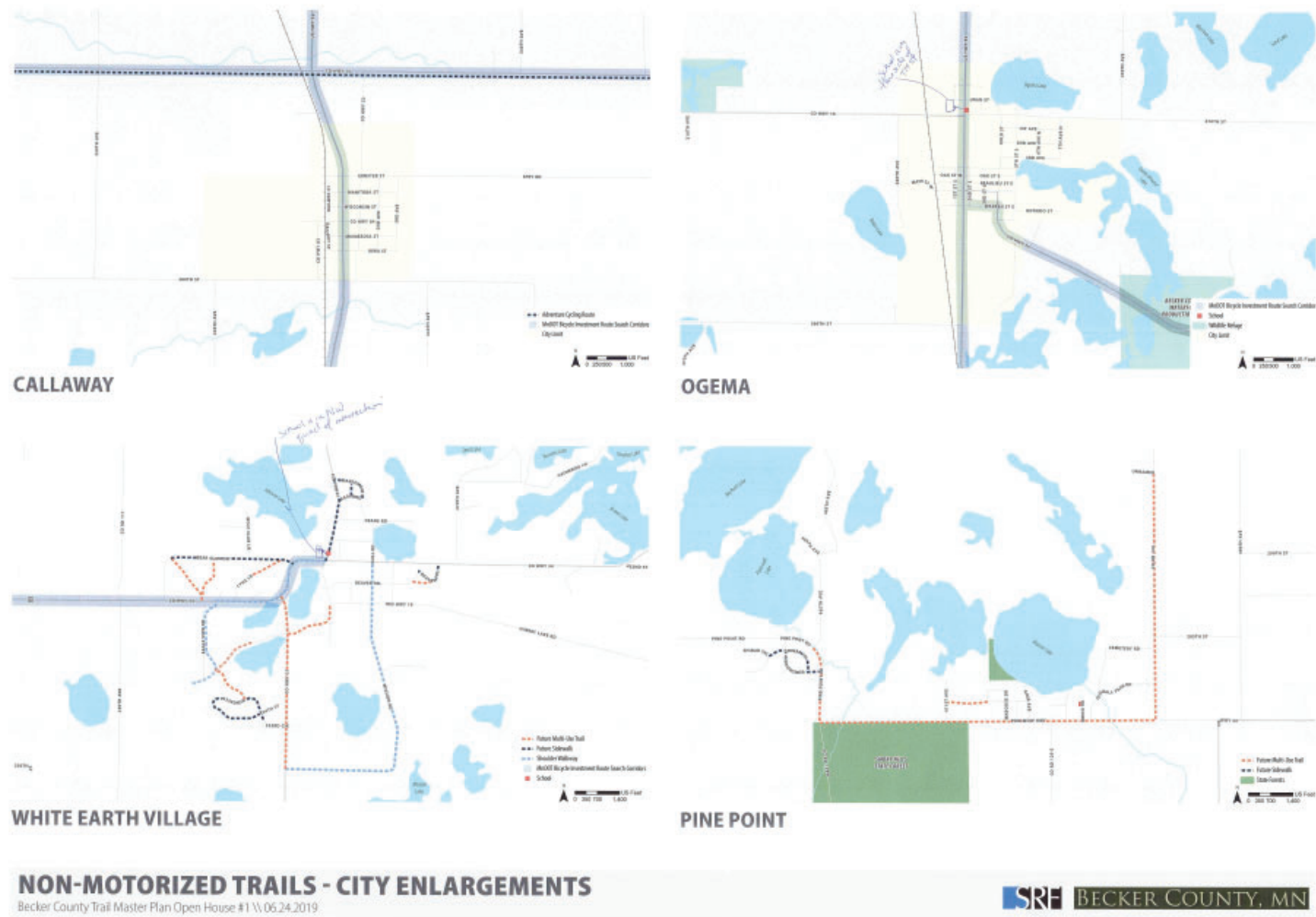


Figure 45: Public Input Received at Open House 1

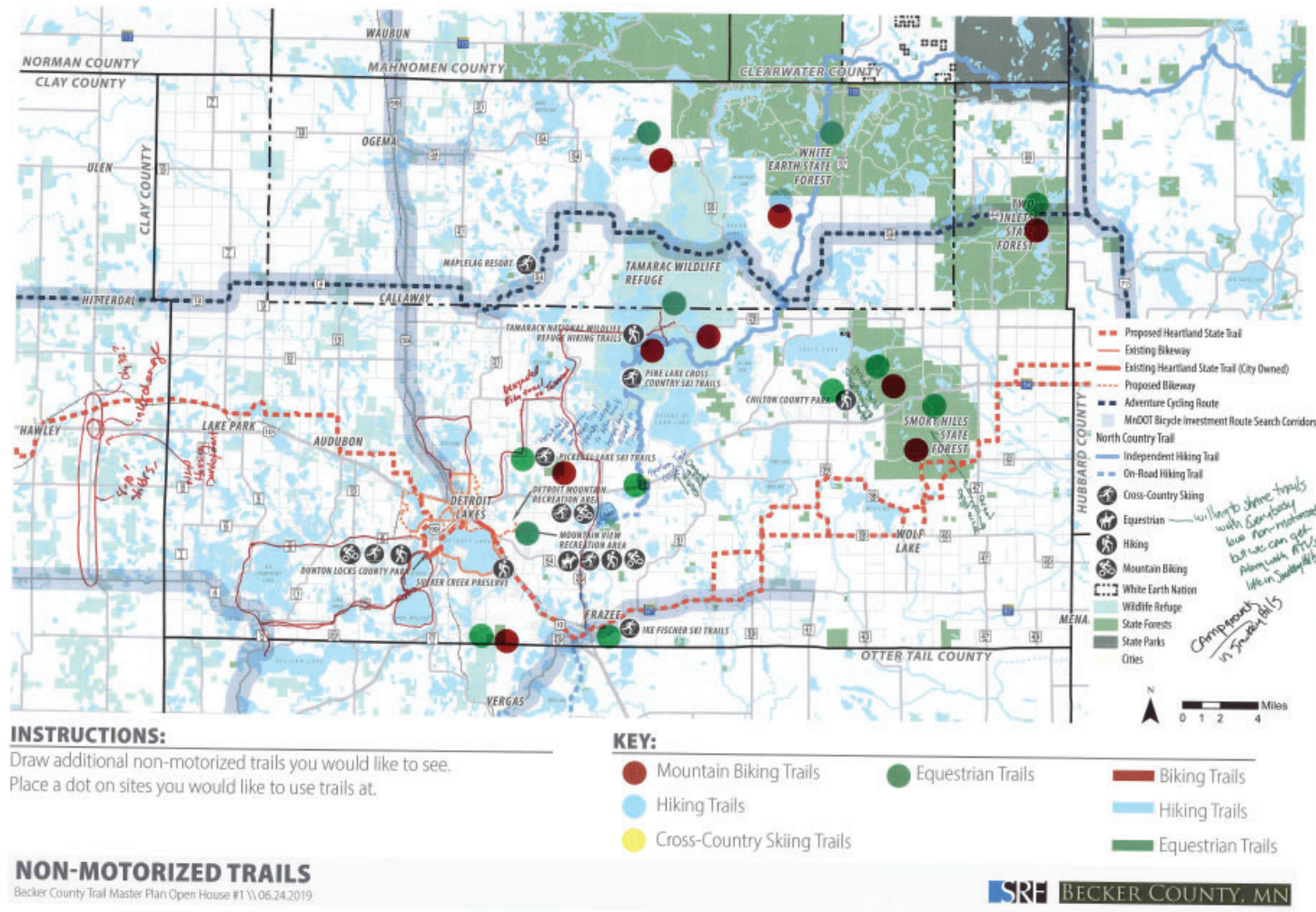


Figure 47: Public Input Received at Open House 1

WHITE EARTH NATION POW WOW EVENT

During the first round of public engagement, a pop up meeting was held at the White Earth Nation Pow Wow event. The public was given the opportunity to identify destinations they currently reach or would like to reach via a trail and recreation sites they currently use or would like to use trails at.

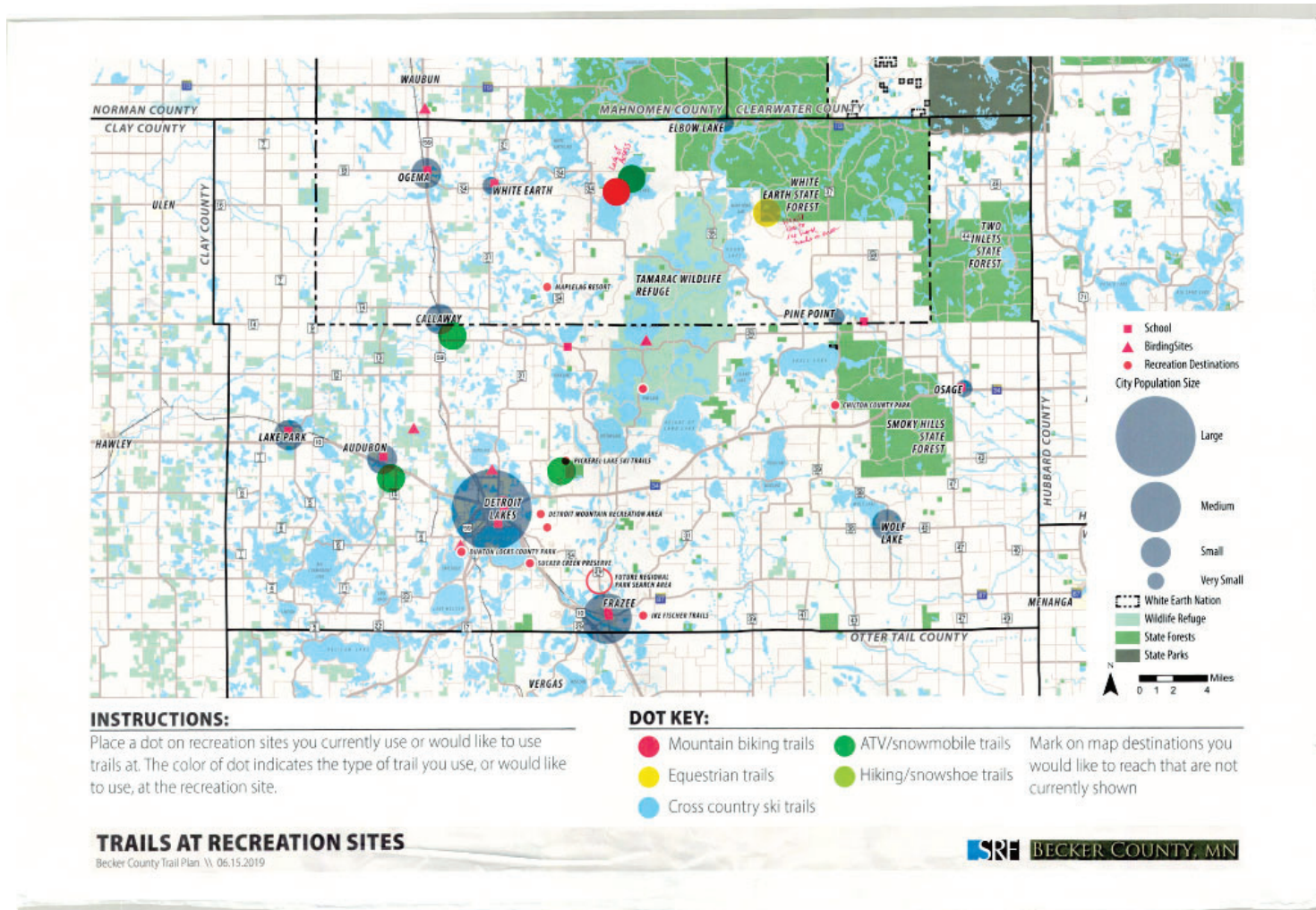


Figure 48: Public Input Received at Pow Wow

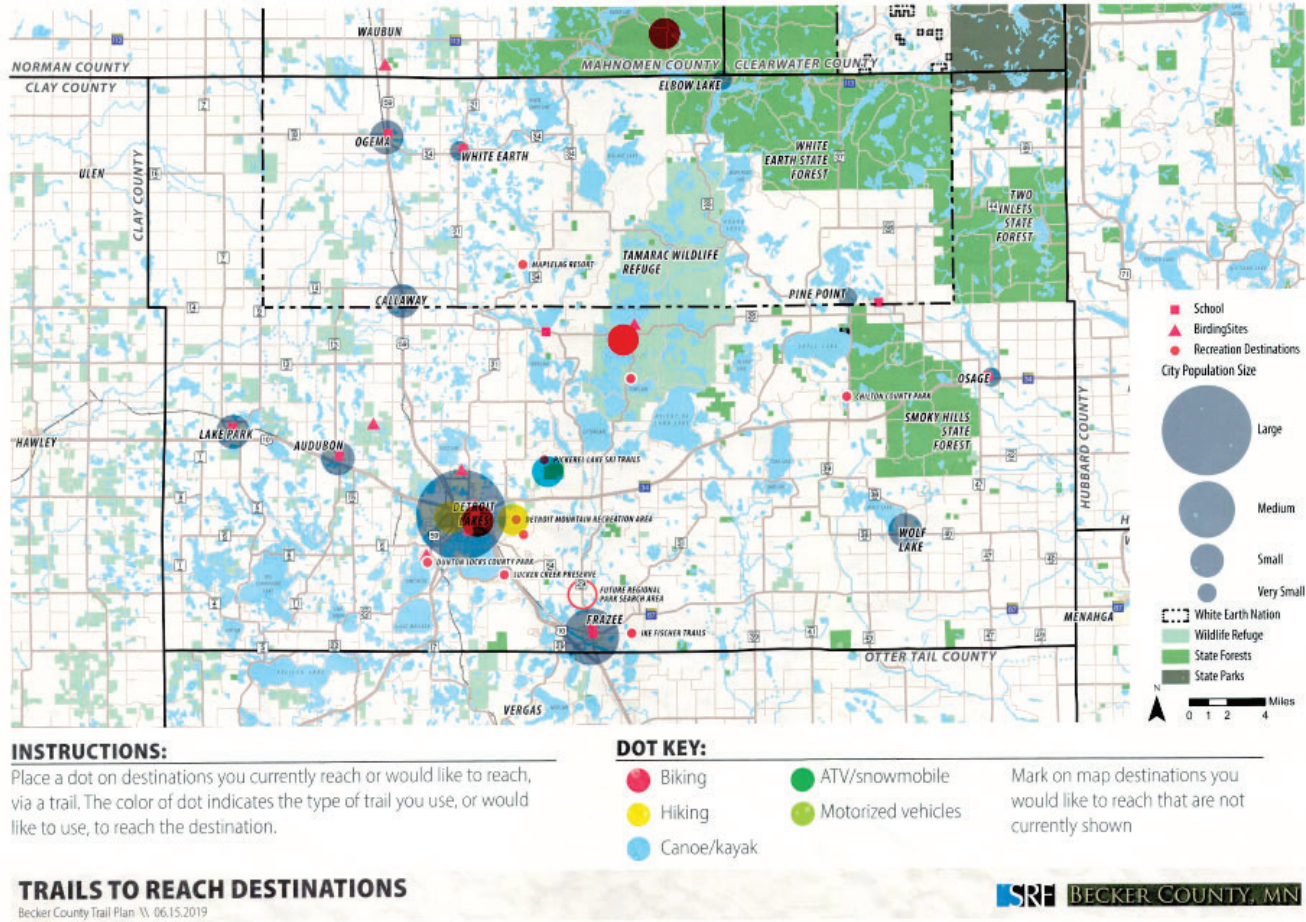


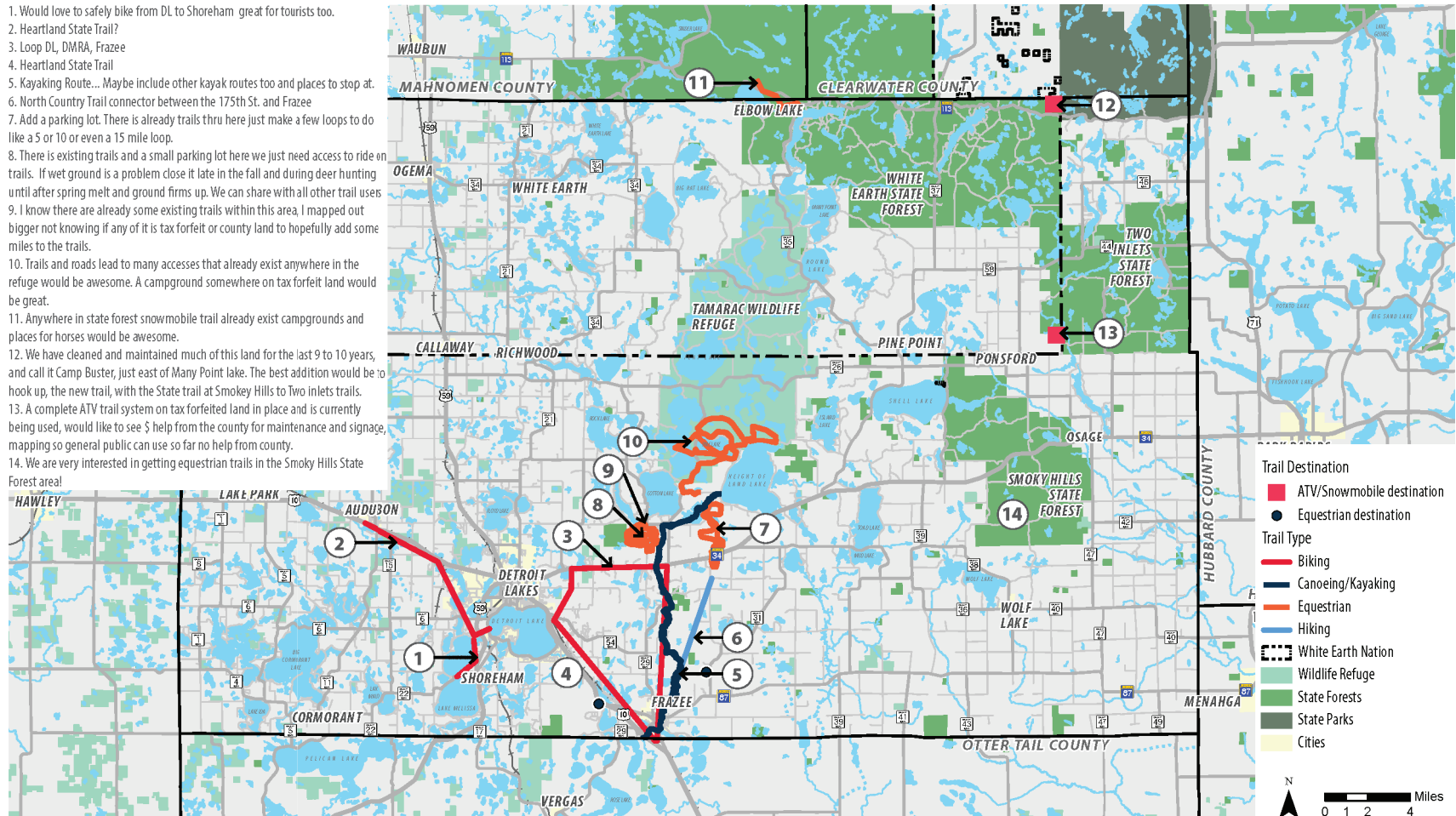
Figure 49: Public Input Received at Pow Wow

ONLINE ENGAGEMENT 1 RESULTS

During the first round of public engagement, an online mapping tool was posted to the Becker County's website. The public was asked to draw in trails and destinations they currently use or would like to use. Figure 50 depicts the public comments received through the online engagement.

Section 5: Public Input

1. Would love to safely bike from DL to Shoreham great for tourists too.
2. Heartland State Trail?
3. Loop DL, DMRA, Frazee
4. Heartland State Trail
5. Kayaking Route... Maybe include other kayak routes too and places to stop at.
6. North Country Trail connector between the 175th St. and Frazee
7. Add a parking lot. There is already trails thru here just make a few loops to do like a 5 or 10 or even a 15 mile loop.
8. There is existing trails and a small parking lot here we just need access to ride on trails. If wet ground is a problem close it late in the fall and during deer hunting until after spring melt and ground firms up. We can share with all other trail uses
9. I know there are already some existing trails within this area. I mapped out bigger not knowing if any of it is tax forfeit or county land to hopefully add some miles to the trails.
10. Trails and roads lead to many accesses that already exist anywhere in the refuge would be awesome. A campground somewhere on tax forfeit land would be great.
11. Anywhere in state forest snowmobile trail already exist campgrounds and places for horses would be awesome.
12. We have cleaned and maintained much of this land for the last 9 to 10 years, and call it Camp Buster, just east of Many Point lake. The best addition would be to hook up, the new trail, with the State trail at Smokey Hills to Two inlets trails.
13. A complete ATV trail system on tax forfeit land in place and is currently being used, would like to see \$ help from the county for maintenance and signage, mapping so general public can use so far no help from county.
14. We are very interested in getting equestrian trails in the Smokey Hills State Forest area!



WIKI MAP RESULTS

Becker County Trail Master Plan \ \ 07.17.2019



Figure 50: Online Engagement 1 Results

COMMUNITY SURVEY RESULTS

The community survey was distributed at the Pow Wow event and the first open house. The survey was intended to determine the comfort level of biking/walking adjacent different roadway characteristics. The following is a summary of the public input.

» Most people surveyed would not feel comfortable riding/walking on shoulders of high volume roads.

- » Most people felt comfortable riding/walking on shoulders of low volume roads.
- » The traffic volume didn't affect comfort of users if the bike facility was a multi-use trail.
- » The surface type (gravel or paved) didn't affect the comfort level of those surveyed.

Community Survey Results Recieved at Open House #1 and Pow Wow Event

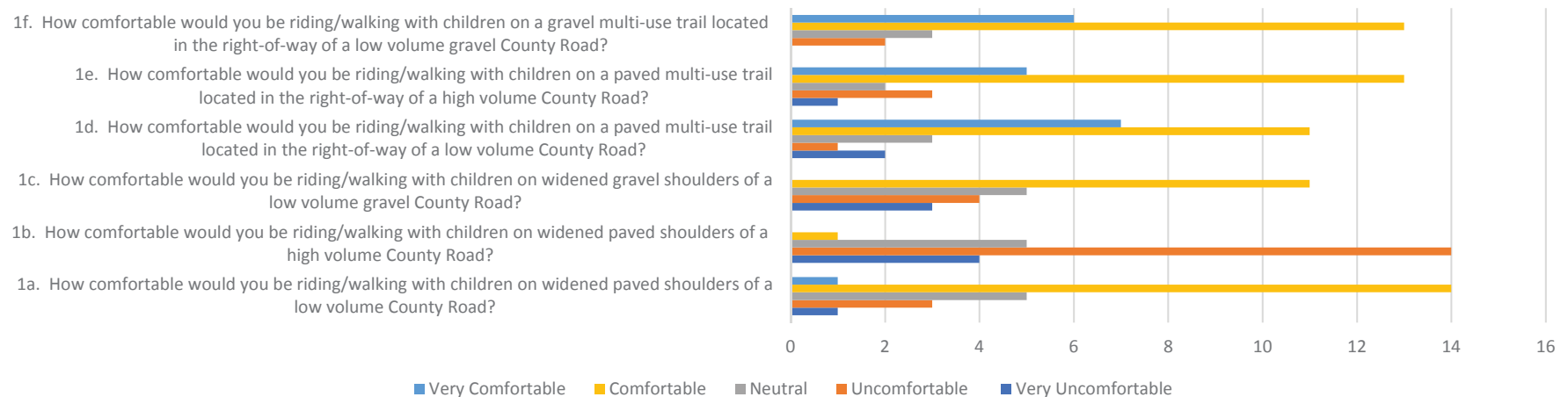


Figure 51: Community Survey Results

SUMMARY OF OPEN HOUSE 2

The open house included a short presentation followed by a time for community members to comment on the concepts developed.

Verbal Comments

- » The mountain bike community would likely not maintain trails in the State Forest or anywhere further than a short drive from Detroit Lakes. Maintaining trails that are outside the trail user's community is unlikely to happen. Developing the mountain bike trail system in Detroit Lakes should be the top priority because most trail users will only use trail systems that are near where they live.
- » There exists a snowmobile gap from Detroit Lakes to Audubon. The Heartland State Trail extension should serve to fill that gap.
- » Bicycle trail development should focus on creating short loops out of communities. Only the avid cyclist will bike across the county. These cyclists already bike the county roads with narrow shoulders. The novice cyclist would bike short

distances out of their community if there were safe routes.

Equestrian Community Survey

1. Riding along or adjacent to existing forest roads provides a good equestrian experience. Equestrians just need a good place to park horse trailers in the State Forests.

- a. Strongly disagree: 0
- b. Disagree: 0
- c. Neutral: 1
- d. Agree: 1
- e. Strongly Agree: 1

2. Independent, cleared horse trails within State Forests are preferred over forest roads (or directly adjacent to forest roads).

- a. Strongly disagree: 0
- b. Disagree: 1
- c. Neutral: 1
- d. Agree: 0
- e. Strongly Agree: 1

3. Riding through the State Forests (no designated trail) is preferred over forest roads (or directly adjacent to forest roads).

- a. Strongly disagree: 0

- b. Disagree: 1
- c. Neutral: 0
- d. Agree: 1
- e. Strongly Agree: 1

4. Equestrian campgrounds are needed in Becker County.

- a. Strongly disagree: 0
- b. Disagree: 0
- c. Neutral: 0
- d. Agree: 1
- e. Strongly Agree: 2

5. Additional Comments

a. The farther away from motorized vehicles for horses would be a best practice. Live, owned, trained, and ridden for over 35 years if you have questions please contact me if you feel I could help.

b. We need to find language that works for all and is clear so we don't have one group thinking trails are for them, and then not allowed. Multi-use trail does not mean all groups have access to it.

c. Why is Detroit Lakes city not on the list of funders of the plan? Are there meetings with more stakeholders -i.e. – city council, county boards, DNR, MnDOT as well as public?

d. Examples of equestrian problems include:

i. Signage putting horses and snowmobiles/ATV on same trail.

ii. On a road shoulders - horses have no chance to move away from traffic. There is nowhere for a horse to go if a motorized vehicle comes up on you.

Written Comments

» Need county to assist with snowmobile trail from Detroit Lakes to Audubon.

Comments Received on Open House Boards

» Proposed Bicycle Facilities: Option 1

» This is the best Heartland route west of Detroit Lakes. It is not on Highway 10 or County Road 6. It is

also a much prettier route through the lakes!

» A paved trail to Detroit Mountain isn't necessary because not many road bikers want to go to Detroit Mountain. There already is a soft surface trail connection that mountain bike users currently use.

» Add a bicycle facility on the south side of Lake Melissa.

» From Wolf Lake go west to Toad Lake.

» Proposed Bicycle Facilities: Option 2

» Please keep the Heartland off Highway 10.

» Highway 10 is not very nice to ride along. The main purpose of the Heartland is recreation not transportation. The Heartland route should prioritize scenic value over directness.

» I support a wide shoulder in Detroit Lakes on Roosevelt from MN 34 to Highway 10. The spot where Roosevelt goes under Highway 10 is dicey for cyclist.

» Proposed Bicycle Facilities: Option 3

» I would like more independent multi-use trails beyond the Heartland.

» Move the Heartland off County Road 6 onto County Road 22 like shown in Option 1.

» A paved trail to Detroit Mountain is an important multi-use trail to create another community loop.

» General Comments

» Heightened bike safety treatment needed for Heartland Trail at Roosevelt and Frazee Street

» Brainerd is a good precedent for lit trails.

» I would like lit cross country ski trails. Maybe in Dunton Locks, Detroit Mountain, or City Park?

» Existing cross country ski trails get walked on by people and dogs.

» Coleman Nordhavsén Trails in Dunton Locks County Park are over grown. These trails should be brought back or turned into a dog park

Dots Received on Proposed Bicycle Facilities

- » Option 1: Two dots received
- » Option 2: Two dots received
- » Option 3: Three dots received

Heartland State Trail Options

- » General Comments
 - » The route proposed in the previous Heartland Master plan from Detroit Lakes to Audubon is a good route for snowmobiles.
 - » Frazee Lions Park could be a Heartland trailhead
 - » The proposed park outside of Frazee could be used for overnight camping. This would allow users to ride the Heartland for a weekend.
 - » Prefer option 1 because...
 - » Better views/more scenic
 - » Stop location at campground
 - » Like the idea of campground connection
 - » Osage Lions Park is ½ mile north of MN 34 on Washington Ave.

- » Option 2 has best Heartland route – Then shoulder trail loops or routes could be made on less travel county roads become options for additional riding. These roads have less traffic and much more rideable
- » Option 1 is most scenic and will attract people from outside the county.
- » Small loops that start and end in communities is the best concept.
- » Overall, I prefer option 3. I prefer option 1 west of Detroit Lakes (light traffic, more rural feel)
- » I prefer option 3 from Park Rapids to Detroit Lakes and Option 1 from Detroit Lakes to Hawley

- » Heartland Option 1: Three dots received
- » Heartland Option 2: Two dots received
- » Heartland Option 3: One dot received

Equestrian and Mountain Biking Trails

- » Focus mountain bike trails in Detroit Lakes. Clubs will not maintain trails in State Forest because it is too far from Detroit Lakes where the clubs are based.

- » Dunton Locks and Mountain View is where the county should put the most effort on mountain bike development.
- » Maplelag has good mountain bike trails.
- » Add portable toilets at Pickerel Lake. Portable toilets should also be along other trails as well.
- » There should be hiking in Pickerel Lake. Ski area is best for hiking
- » As walking trails are planned, consider allowing horses also. Keep horses away from motorized uses and bikes

Water Trails

- » What improvements are envisioned? Water access points? Where is parking available?
- » Support proposed recreational park planned for just outside of Frazee so people can enjoy the Ottertail River for days at a time.
- » Where is the next boat access on the Straight River in Hubbard County?

Motorized Trails

- » Need snowmobile trail between Detroit Lakes and Audubon.

ATV Trails

- » ATV Trails are grant-in-aid funded.
- » Many existing ATV trails in White Earth State Forest.
- » Maps with orientation signage needed for ATV trails.

ONLINE ENGAGEMENT ROUND 2

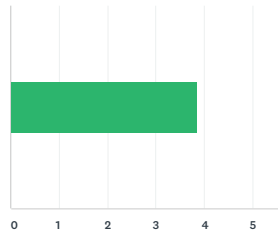
The second round of online engagement allowed the public to comment on the trail concepts developed. The online engagement asked the public to rank their support for various options. The following figures are results from the second round of online engagement.

Section 5: Public Input

Becker County Trail Master Plan Survey Round 2

Q1 How supportive are you of this bike network option?

Answered: 56 Skipped: 0

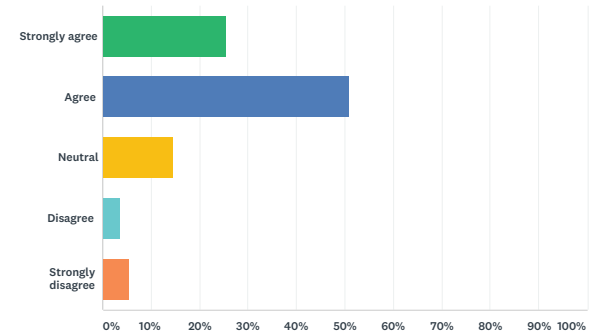


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
		4	215
Total Respondents: 56			56

Becker County Trail Master Plan Survey Round 2

Q2 This option provides connections between key county destinations

Answered: 55 Skipped: 1



ANSWER CHOICES	RESPONSES
Strongly agree	25.45% 14
Agree	50.91% 28
Neutral	14.55% 8
Disagree	3.64% 2
Strongly disagree	5.45% 3
TOTAL	55

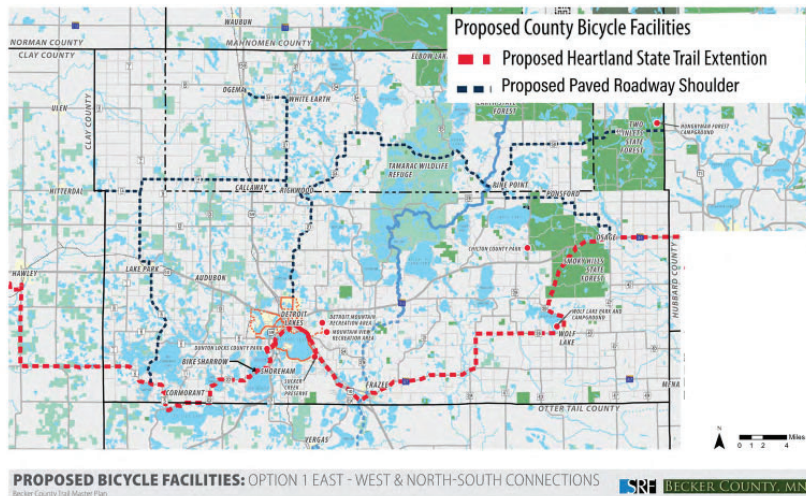
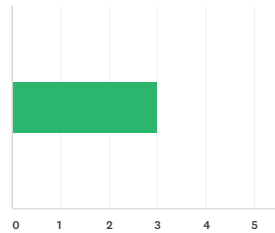


Figure 52: Online Engagement 2 Results

Becker County Trail Master Plan Survey Round 2

Q4 How supportive are you of this bike network option?

Answered: 40 Skipped: 16

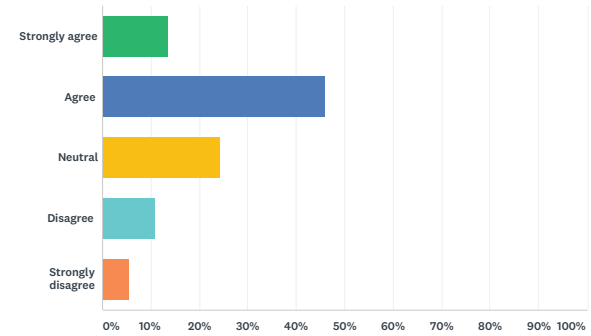


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	3	120	40
Total Respondents: 40			

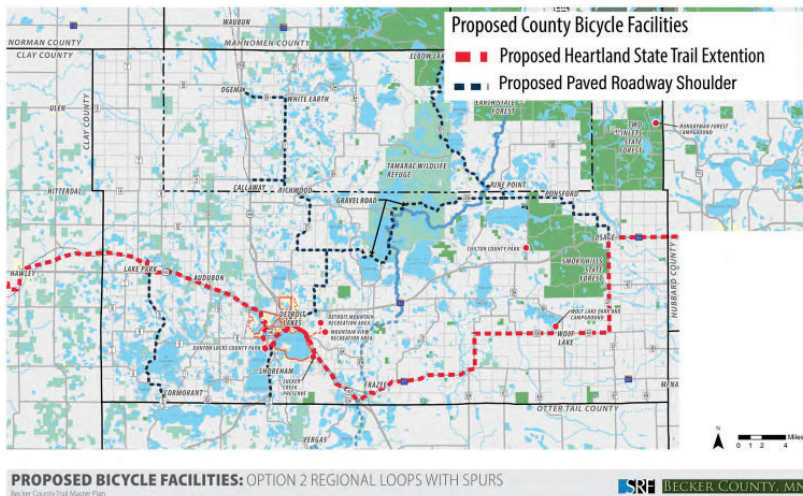
Becker County Trail Master Plan Survey Round 2

Q5 This option provides connections between key county destinations

Answered: 37 Skipped: 19



ANSWER CHOICES	RESPONSES
Strongly agree	13.51% 5
Agree	45.95% 17
Neutral	24.32% 9
Disagree	10.81% 4
Strongly disagree	5.41% 2
TOTAL	37

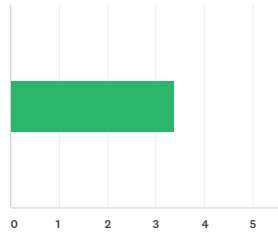


Section 5: Public Input

Becker County Trail Master Plan Survey Round 2

Q7 How supportive are you of this bike network option?

Answered: 35 Skipped: 21

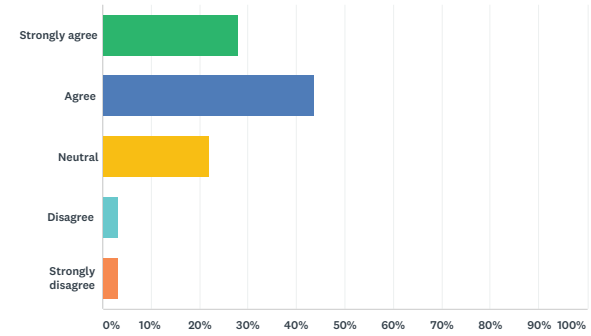


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
		3	118
Total Respondents: 35			35

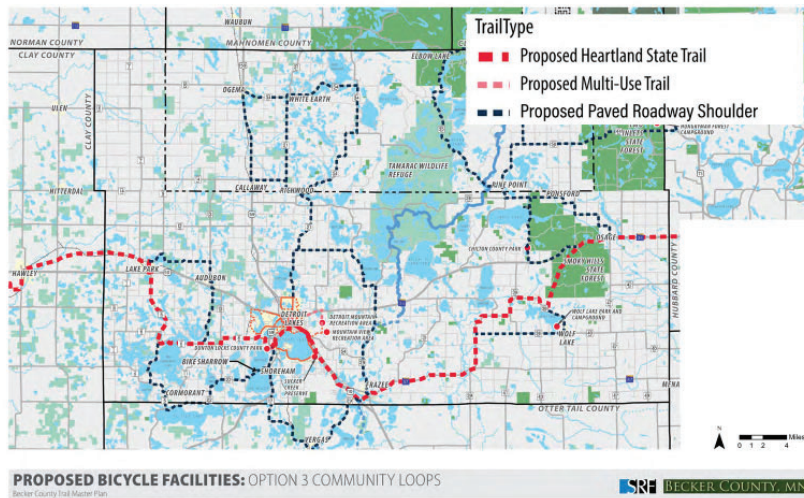
Becker County Trail Master Plan Survey Round 2

Q8 This option provides connections between key county destinations

Answered: 32 Skipped: 24

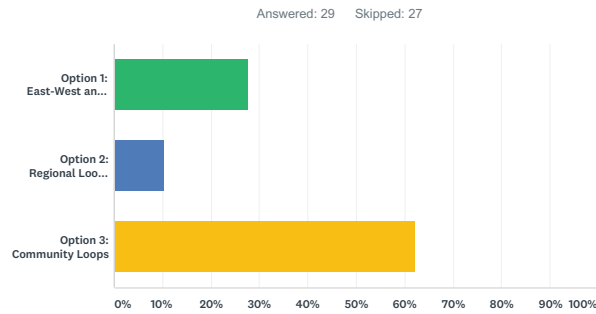


ANSWER CHOICES	RESPONSES
Strongly agree	28.13% 9
Agree	43.75% 14
Neutral	21.88% 7
Disagree	3.13% 1
Strongly disagree	3.13% 1
TOTAL	32

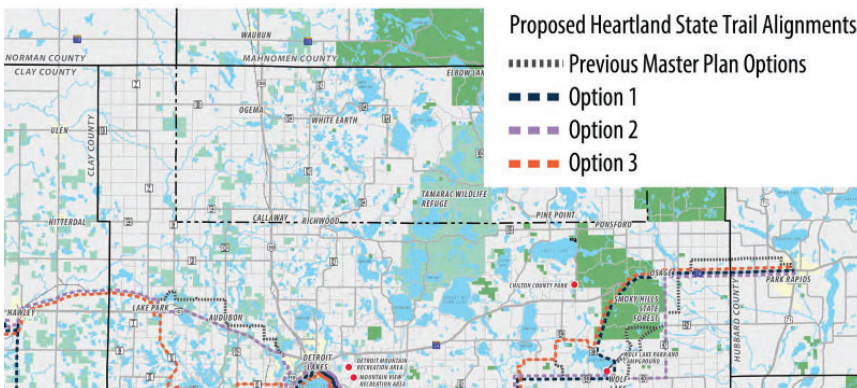


Becker County Trail Master Plan Survey Round 2

Q10 Each bike network option shows a different proposed route for the Heartland State Trail. Which proposed Heartland State Trail route do you prefer?

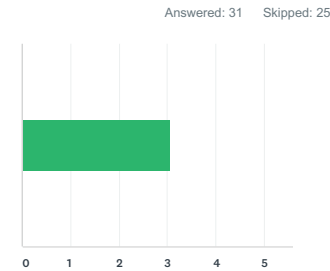


ANSWER CHOICES	RESPONSES
Option 1: East-West and North-South Connections	27.59% 8
Option 2: Regional Loops with Spurs	10.34% 3
Option 3: Community Loops	62.07% 18
TOTAL	29

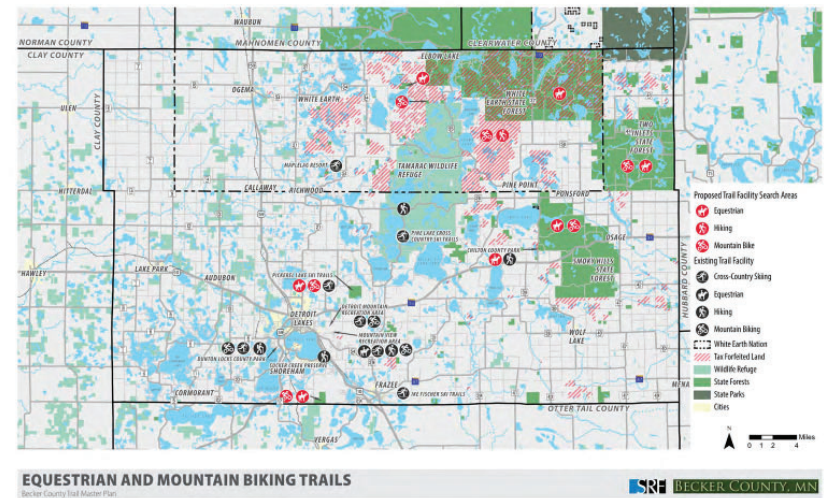


Becker County Trail Master Plan Survey Round 2

Q11 How supportive are you of this concept?



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
		3	95
Total Respondents: 31			31

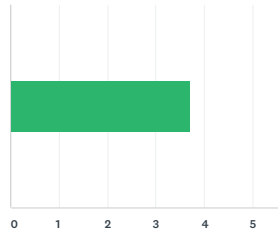


Section 5: Public Input

Becker County Trail Master Plan Survey Round 2

Q13 How supportive are you of this concept?

Answered: 30 Skipped: 26

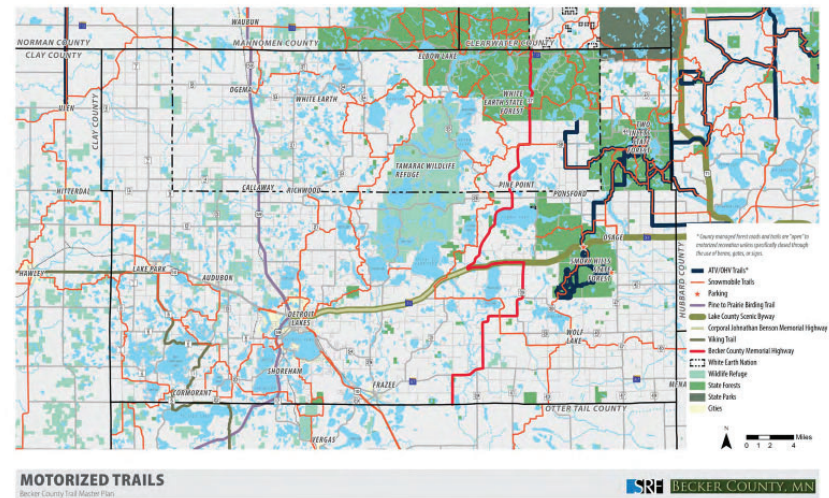
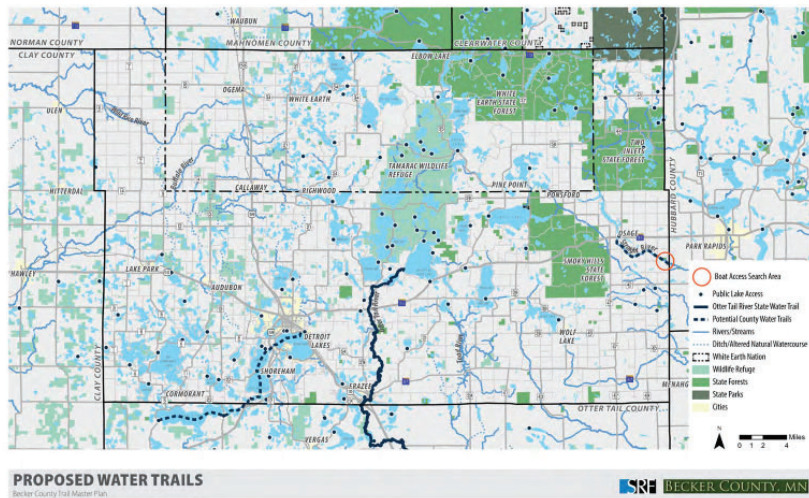


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
		4	111
Total Respondents: 30			30

Becker County Trail Master Plan Survey Round 2

Q15 Do you have additional comments about this concept?

Answered: 10 Skipped: 46



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MASTER TRAIL PLAN
BECKER COUNTY MINNESOTA