



City of Emily

Park, Trail & Open Space Plan

December 2017



Acknowledgements

This plan was made possible through the volunteer efforts of the steering committee, residents, and visitors of the City of Emily. From their volunteerism the first Park, Open Space and Trail plan was crafted to help lead the city into the future.

Your ideas, input, energy, and passion for the environment and walkability enriched this plan and helped forge a course for the future of Emily's parks, trails, and open spaces.

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Introduction

Nestled along the northeast boundary of Crow Wing County, Emily is in the heart of north-central Minnesota. Settled within the pine and hardwood forest, adjacent to plentiful lakes and environmental areas, natural resources has been a part of Emily's DNA before its incorporation. The city boasts opportunities to hike, hunt, fish, and canoe in its clean clear waters, and an abundance of wildlife.

Crow Wing County has developed from a trapping and fur trading area along the Leech Lake Trail into a booming tourism industry. Natural resources, habitat, and wildlife have played a vital role in the growth and development of Crow Wing County. Today, Crow Wing County continues to attract visitors and residents alike, of all ages.

Purpose

The *Park, Trail, and Open Space Plan* is designed to provide direction for the City Council, Park Board, and city staff to provide guidance in long-range decision-making efforts regarding the park, trail, and open space network. This plan will address the impact, maintenance, and expansion of the park, trail, and open space within the City of Emily over the next 10 years.

This plan will provide guidance to elected, appointed officials and city staff in allocating resources, park maintenance, trail expansion, and land preservation. Community engagement forms the foundation of this plan. The themes, goals, policies, and strategies outlined in this plan can also provide guidance for the park, trail, and open space network.

The plan provides guidelines for decisions on a variety of recreational and open spaces, including:

- Identifying future trail corridors and connections.
- Investing in active and passive recreation.
- Preserving natural and sensitive environmental areas.
- Cooperating with public and private entities to expand and maintain the existing park, trail, and open space network.
- Prioritizing investments.

In addition to serving as a resource, this plan will help guide officials on how to utilize park dedication fees. State statute 462.358, subd. 2(b):

(b) If a municipality adopts the ordinance or proceeds under section 462.353, subdivision 4a, as required by paragraph (a), the municipality must adopt a capital improvement budget and have a parks and open space plan or have a parks, trails, and open space component in its comprehensive plan subject to the terms and conditions in this paragraph and paragraphs (c) to (i).

When the city requires land to be dedicated within a specific subdivision, it must determine that the city reasonably needs to acquire the specific portion of land for reasons permitted by state statute (e.g., streets, parks, utilities) as a result of approval of the subdivision (this is sometimes referred to as a nexus requirement).

Community Engagement

A community survey was deployed to gain further insight into the opinions and aspiration of community members. A total of 182 people completed the survey. A series of leading initiatives were formed based on the feedback received from participants. In addition to the above responsibilities, the plan will address:

- Improving existing parks and facilities.
- Creating trails and connections for walking and biking.
- Connecting residents to water.
- Providing opportunities for the entire population.
- Improving communication and marketing of amenities.

This plan is an effort to begin conversations around the improvement of Emily's pedestrian and bicycle network. A complete network creates safe, comfortable, and accessible multimodal routes for people walking and bicycling.¹

Process

In May 2017 the Emily City Council appointed an eight-member steering committee to facilitate the development of the city's first Park, Trail, and Open Space Plan. This is the first effort to address the city's park and trail network and devise a plan for the future. The purpose of the plan was to develop an inventory of the existing network, goals, policies, and implementation strategies for the expansion and maintenance of the existing system over the next 10 years.

Four steering committee meetings were held, and a community survey was completed. The feedback from the survey formed the base of the goals and policies. The following plan provides policy and strategy guidance to aid in the implementation of priorities and initiatives developed by survey respondents and priorities in the Comprehensive Plan.

A community survey was deployed to further study the three areas outlined in this plan: parks, trails, and open spaces. The survey revealed a common set of initiatives around these plan elements. The survey summary and responses can be found in Appendix B.

Past Planning Efforts

The 2010 Comprehensive Plan outlines pertinent sections addressing parks, environment, walkability and bicycling, and recreation. The Comprehensive Plan includes the following goals and policies to support this effort:

ENVIRONMENT

Vision Statement: Protect and enhance the overall environmental quality of the City of Emily.

“

In addition to physical safety, user comfort is an important aspect of a multimodal network. Typically, additional separation between motor vehicles and those walking or bicycling, or slowing motor vehicles to walking and bicycling compatible speeds, is desired to create a more comfortable network.”

Small Town and Rural Multimodal Networks

¹ *Small Town and Rural Multimodal Networks*, U.S. Department of Transportation, Federal Highway Administration.

- Goal 1: Preserve the natural beauty of Emily.
- Goal 2: Protect the quality of Emily lakes, streams, rivers and wetlands.
- Goal 3: Maintain the area wildlife population.
- Goal 4: Sustain the city's forests.
- Goal 5: Protect the quality of groundwater.

COMMUNITY

Vision Statement: Build on the area's strengths to enhance the quality of life for Emily's residents and visitors.

- Goal 9:** Use the city's parks to enhance the quality of life for residents and visitors.
- Goal 11:** Improve the city's roads with enhanced biking and walking opportunities.
- Goal 12:** Support recreational connections across private land.

GOVERNMENT

Vision Statement: Ensure that Emily's local government is efficient, effective, and responsive to the people of Emily.

- Goal 17:** Manage public lands for the benefit of Emily property owners.

The Comprehensive Plan outlines specific policies to support each goal, as well as a strong narrative outlining the purpose and details that warrant the crafting of each goal.

Crow Wing County Parks, Trails and Open Space Plan

In 2005, Crow Wing County adopted its Parks, Trails, and Open Space Plan. This plan was innovative for its time. The plan was the work of the county's newly formed Parks Department and Parks Advisory Commission. The plan provides a detailed policy and strategy guidance document that implements the priorities of the county's Comprehensive Plan.

Crow Wing County Comprehensive Recreation Trails Plan

The plan focuses on recreational trails and facilities under the direct management of Crow Wing County. It addresses the priorities for the management of diverse recreational trails as well as opportunities on Crow Wing County managed lands. In all, 103,000 acres of tax-forfeited property are distributed throughout the county. The demand for multiple uses on public lands increases management pressure. The plan reports on the outcomes of the plan development process and focuses on the

“Minnesota’s outdoor recreation opportunities connect everyone to the outdoors. They create experiences that inspire a legacy of stewardship for the natural world and they provide fun, outdoor recreational opportunities that strengthen friendships, families, health, and spirit now and into the future. Minnesotans experience the full range of benefits that outdoor recreation provides, reinforcing our identity as an outdoor culture.”

Vision Statement, Minnesota's Statewide
Comprehensive Outdoor Recreation Plan
2014 - 2018

near-term priorities for addressing trail management opportunities on these lands.

Parks and Trail Legacy Plan

This plan is a 25-year long-range plan and a 10-year strategic coordination plan for the allocation of money in the Parks and Trail Fund as well as other traditional sources of funding. A robust public engagement effort identified four strategic directions and guidelines for funding. The four strategic directions include:

- Connect people and the outdoors.
- Acquire land, create opportunities.
- Take care of what we have.
- Coordinate among partners.

The plan presents priorities for parks and trails of state and regional significance, including identifying gaps and recommendations to address them.

State Comprehensive Outdoor Recreation Plan (SCORP)

The 2014-2018 State Comprehensive Outdoor Recreation Plan (SCORP) is Minnesota’s outdoor recreation policy plan. It gives outdoor recreation decision makers and managers a focused set of priorities and suggested actions to guide them as they make decisions about outdoor recreation.

The National Park Service requires this plan to maintain eligibility to participate in the federal Land and Water Conservation Fund (also known as the LAWCON or LWCF) program.

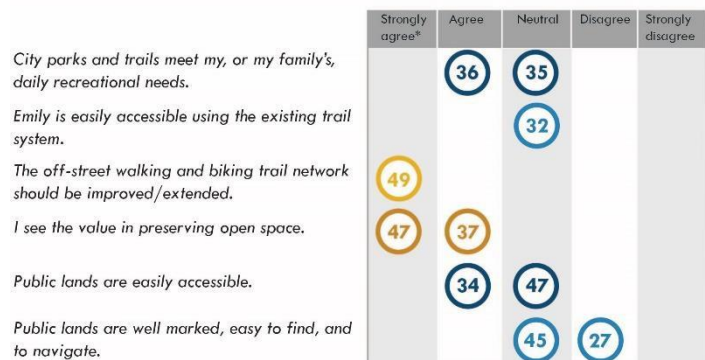
Statewide Bicycle System Plan

The Statewide Bicycle System Plan supports bicycling as safe, comfortable, and convenient for all people by providing a framework for how MnDOT will address bicycling needs and interests.

Tourism

The area’s scenic beauty and quality lakes bring people from across the state to Emily. These recreational amenities should be viewed as a driver for economic development and local tourism, as well as a quality of life enhancement. Outdoor enthusiasts who visit Emily help support the local economy by spending money on food, lodging, services, and attractions and entertainment. Providing visitors with quality hospitality, retail services, wayfinding, cultural attractions, and amenities will enhance the experience of visitors and tourists.

Q11: Please indicate if you agree or disagree with the following statements regarding Emily’s park, open space and trail network:



Results from Park, Trail, and Open Space survey, August 2017.
*Percentages taken from question 11 of the survey.

Trail Towns

Communities are realizing the economic potential of trails as highly desirable destinations that bring dollars to the places they serve. In addition to preserving vital open space and providing multimodal transportation options, trails and greenways attract visitors from near and far. These visitors directly facilitate job growth in tourism-related opportunities such as local stores, lodging, and restaurants.

The “Trail Town” model of economic revitalization places trails as the centerpiece of a tourism-centered strategy for small-town revitalization. Trail Towns contain trails that are well connected to downtown businesses. Based on the National Main Streets economic model, Trail Towns are literally inviting trail users to spend time and dollars in their community.

Trends

Aging and Aging Actively

Many Baby Boomers are seeking changes in lifestyle to reflect their lack of child care responsibilities. They are more physically active with vigorous participation in social, economic, cultural, recreation, and civic affairs. Emily will need to provide opportunities, civic participation, social interaction, and a broad range of active recreational choices.

The Importance of Parks and Recreation for Families

Parks and recreation opportunities are important for families who look for activities and open space close to home. In an effort to attract young families to the area, park and recreational facilities offer sport opportunities, enrichment, child care options, and simply a place to enjoy the outdoors and move. A strong parks and recreation system, in partnership with a good school district and employment opportunities, is an essential component to attracting and retaining families.

Accessibility

More than ever, people with disabilities are searching for and finding ways to live active and independent lives. Many parts of parks and recreation are legally mandated to meet accessibility standards, and those that are not legally mandated to do so are also moving toward greater accessibility, with playgrounds, trails, and athletic facilities being adapted to meet the needs of all citizens.

Active Living

All age groups are seeing an increase in obesity rates, along with associated health risks, such as high blood pressure and diabetes. As a result, people are paying increased attention to Active Living, which centers on the idea that physical activity can and should be integrated into daily routines. This trend's demands for parks and recreation include more walking, running, and biking trails, additional senior fitness opportunities, and more ways to integrate the health of the body and mind into everyday lifestyles.

Trails

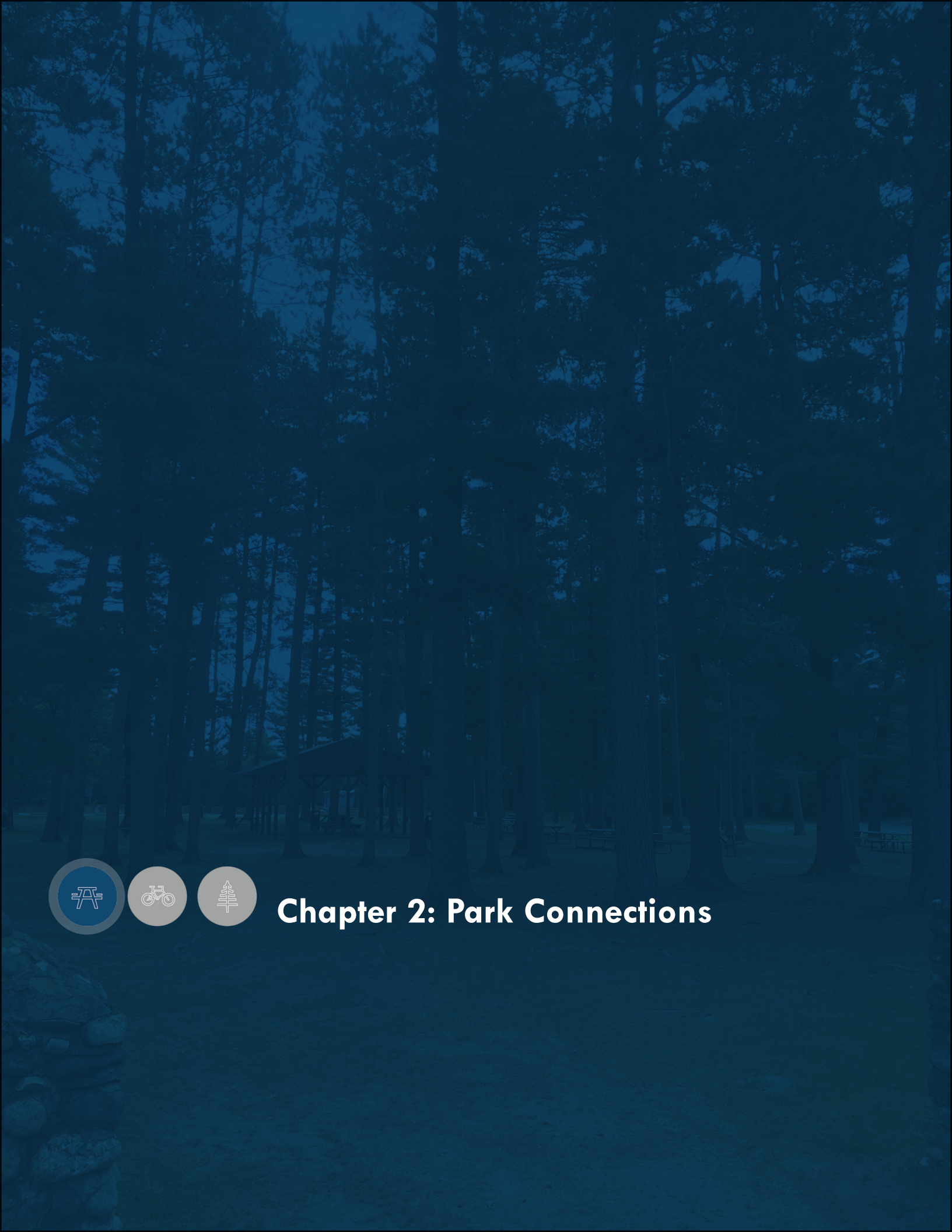
Trails serve multiple purposes, providing recreation, safe routes for travel, and places for active recreation. Whether they are long, linear trails or a walking loop, trails are in high demand.

Sustainability

Socially, parks and recreation are striving to be inclusive of all community members. Places and activities that are loved by all of the community are more likely to be protected, preserved, and looked after.

Economically, parks and recreation provide services as a strong value in order to retain and develop funding sources.

Environmentally, parks and recreation allow people to encounter and make connections with the natural world, while also protecting wildlife habitat and native landscapes.



Chapter 2: Park Connections

Park Connections

Emily is home to a diversity of lakes, streams, wetlands and heavily forested areas. The City of Emily's rural charm entices visitors and residents with great hunting, fishing, birdwatching, wildlife watching, ATV trails, and other outdoor activities.

Parks have long been considered the front yard of the community and help define the curb appeal of the city to visitors and residents alike.

Like many cities, Emily's parks are constrained by the available financial resources. These financial constraints have left city officials prioritizing park system investments and unable to fully implement the components throughout the comprehensive plan. Volunteer efforts have helped supplement the city's work on the park system.

As a part of the planning process, the city conducted a survey to find out how residents use the park network today and to help gauge priorities for the future. The survey also included questions to gauge attitudes toward providing tax money to support improvements to the parks and recreation system.

At the first steering committee meeting, a citywide assessment was completed by steering committee members to analyze park network. Their responses are as follows:

Strengths: variety, tennis courts, ball fields, events in the existing parks, close proximity to each other, mature trees (pine, spruce, hickory, oak).

Opportunities: park development on the north side of town, increase usage, permanent bathroom facilities and drinking fountains, connections, emerging trends.

Weaknesses: number of parks, parks on the north end of town, increase use, crossing Highway 6.

Threats: cost of maintenance, time, number of full-time employees, tree age and maturity.

Survey Responses

A community survey was available from July 14 to Aug. 11, 2017. A total of 182 people participated in this survey. Sixty-one percent of respondents either lived in Emily or were seasonal property owners. This larger percentage begins to show the impact that Emily's natural resources and open space network have on its citizens and the dedication of its residents. Sixty-three percent of respondents were between the ages of 55 and 79, while 26 percent were between the ages of 36 and 54.

“ Kayak rentals... any of the lakes.

“ Better signage would be helpful for new residents.

“ Kiosks should list all the types of trail recreational information with maps.

“ Better signage and mapping.

“ Camping and campgrounds.

“ Paved nature walk and biking trails.

“ Public beach.

Survey respondents reported that most people use the park, trail, and open space networks 1-10 times per year. Reasoning behind the low attendance could be attributed to the seasonality of residents and summer- and winter-based activities.

Residents primarily utilize the following recreational opportunities available within the city: playgrounds, walking and hiking opportunities, fishing and swimming in area lakes, ATV or OHV on area trails. **Fishing** was the number one activity identified by residents followed by **ATV/OHV** riding and **walking and hiking**.

A majority of survey respondents noted they utilize the City Park, county and DNR-managed lands. The City Park offers the most amenities, including updated play equipment, a pavilion, grills, and picnic tables. Assumptions can be made that most of the county and DNR lands could be utilized for hunting purposes with some casual walking and hiking use.

Benefits of Parks and Recreation Health

Parks and trails encourage a healthy, active lifestyle by providing an outlet for various physical activity. Whether residents are biking, walking, or playing baseball, parks provide essential places for people to exercise. When people have access to park facilities and programming, they are more likely to be active, which improves their physical health. These facilities also provide opportunities to be connected with nature.

Community Health

Recreational programs offer lifelong learning opportunities. Such programs offer activities for youth and help keep seniors active.

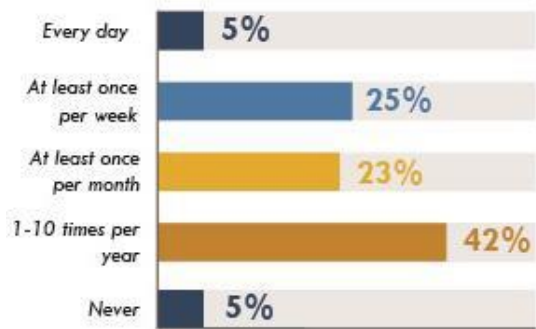
Scenic Beauty

Parks are seen as the “front yard” of the community. Visitors remember places by their natural areas, parks, parkways, beaches, public art, and athletic fields. These elements provide a high quality of life and a tranquil, beautiful place to live.

Environmental Benefits

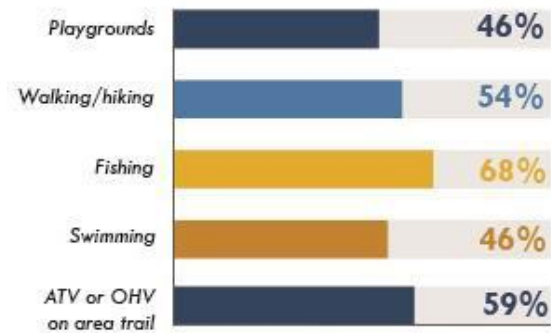
Parks, natural resources, and environmental areas offer air quality benefits, as well as serve as a first defense in water quality and green infrastructure.

Q4: How often do members of your household visit or use one of Emily's parks, trails, or open spaces?



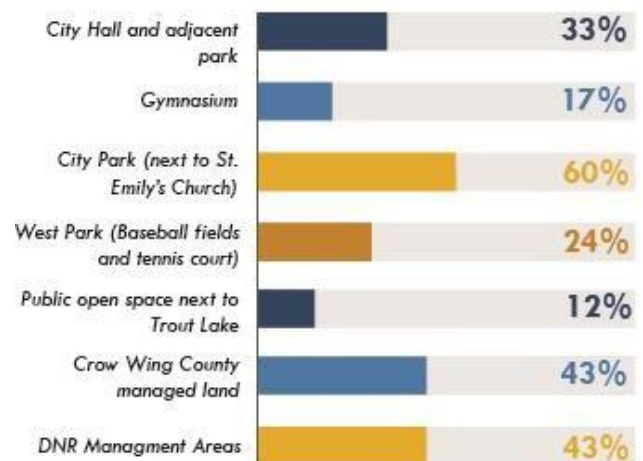
Results from Park, Trail, and Open Space survey, August 2017

Q5: Which activities in Emily have you or members of your household participated in during the past three years?



Results from Park, Trail, and Open Space survey, August 2017

Q6: Which of the following park, open spaces and recreation facilities do members of your household use?

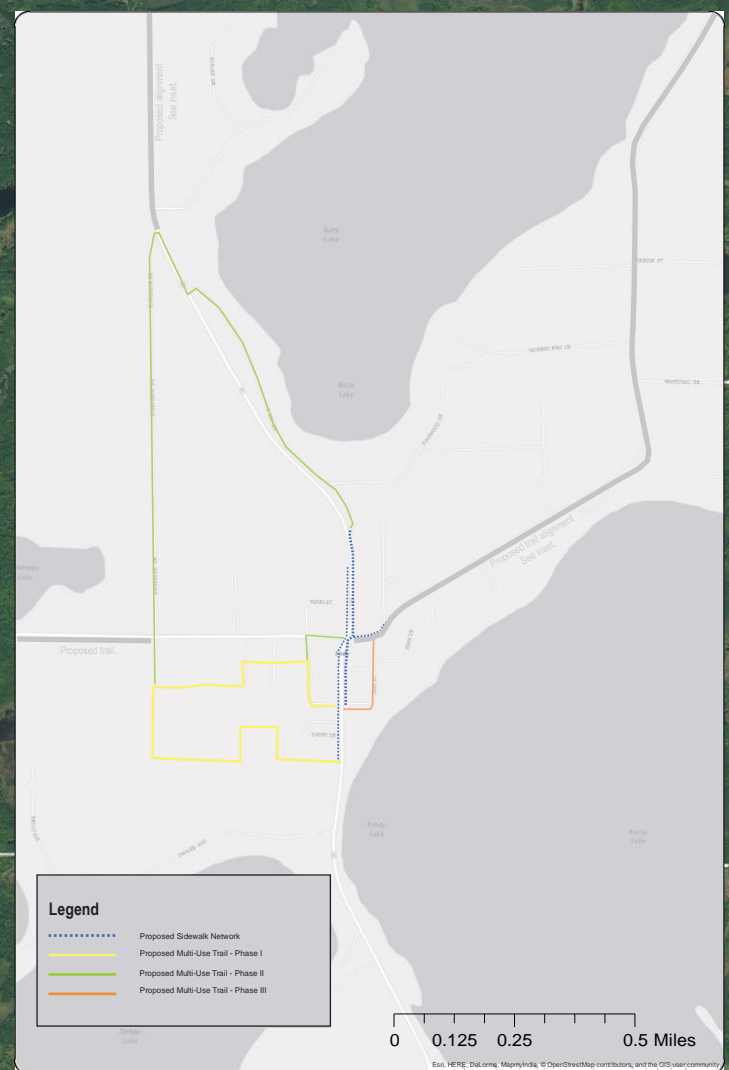
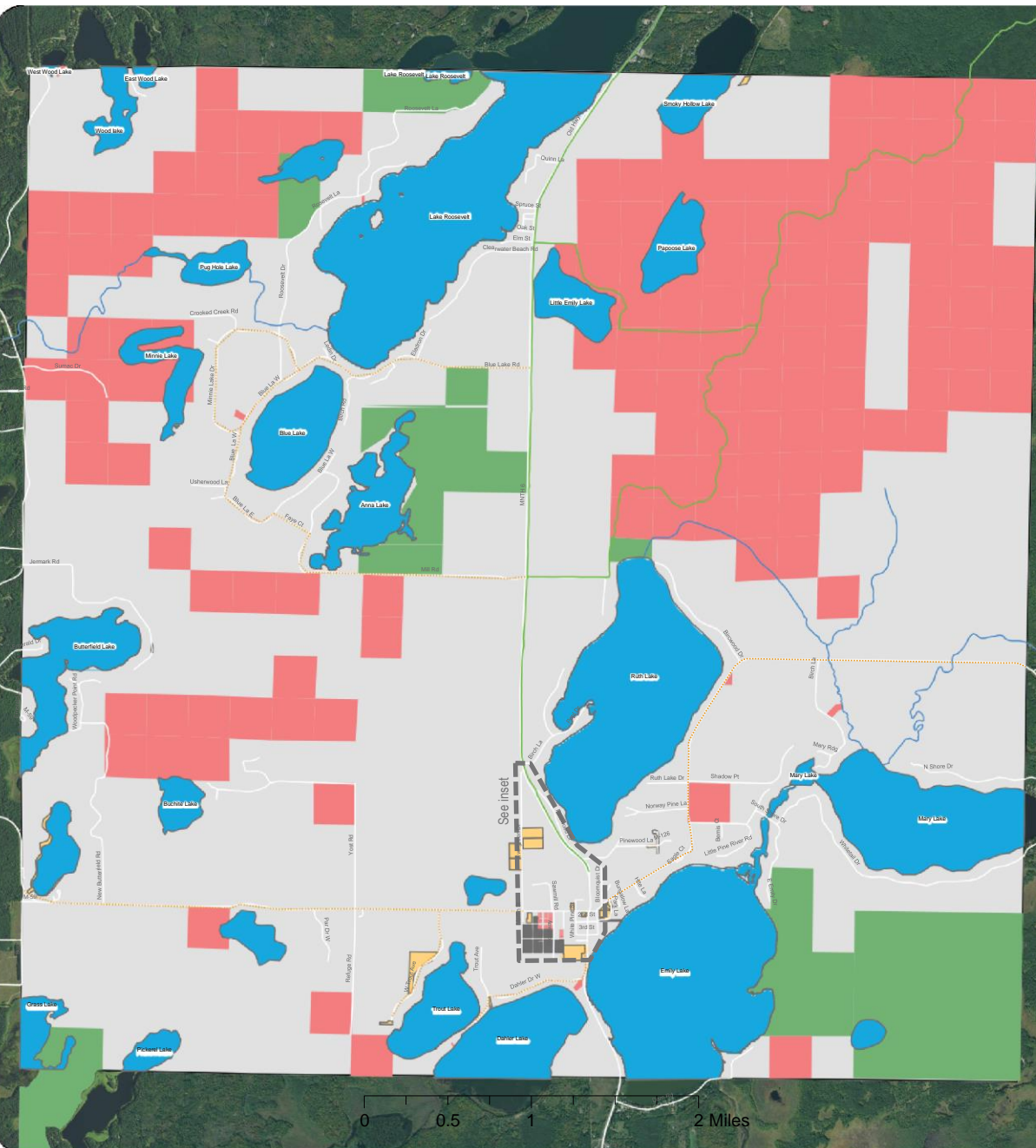


Results from Park, Trail, and Open Space survey, August 2017

Table 1.1 – City of Emily Parks and Recreational Facilities Inventory

Park Classification	Size	Picnic tables	Grills	Tennis courts	Play equip.	Basketball courts	Parking lot	Baseball field	Spectator seating	Concessions	Restroom	Portable restroom	Softball field	Pavilion	Walking paths	Ice-rink	Benches	Community Garden	Soccer field	Swimming pool	Horseshoe pits
Community Park																					
<i>City Hall Park</i>		X			X	X	X					X									
<i>City Park (Next to St. Emily's Church)</i>		X	X		X							X		X							
Neighborhood Park																					
<i>City Ballpark (West Park)</i>		X	X	X	X		X	X	X			X	X	X			X				
<i>Trout Lake Park</i>																					
Special Use																					
<i>Food Shelf Building</i>																		X			
Mini Park																					
<i>Emily Meadows Parkland</i>																					
<i>Smokey Hollow Parkland</i>																					
Open Space																					
<i>Crow Wing County Managed Land</i>															X						
<i>DNR Management Areas</i>															X						

City of Emily Parks, Trails and Open Space, 2017



Legend

- ⋯ Proposed Sidewalk Network
- Proposed Multi-Use Trail - Phase I
- Proposed Multi-Use Trail - Phase II
- Proposed Multi-Use Trail - Phase III

- ⋯ proposed_trails
- Streams
- State Trails
- Road Network
- Lakes
- County Managed
- DNR Managed
- City Managed
- City Limits



Total City area = 23,040 acres (6 x 6 miles)
 Lakes- 4,006 acres
 County Managed Tax-forfeit land- 5,420 acres
 DNR Managed Land- 2,134 acres
 City Managed Land- 186 acres
 Region ATV Trails- 11.8 miles

Sources: Crow Wing County, MN Geospatial Commons, MN DNR

Park and Trail Classifications

The National Recreation and Park Association (NRPA) and the American Academy for Park and Recreation Administration (AAPRA), in partnership, have developed park and trail system standards to serve as functional guidelines for communities as they develop their park and trail systems. The following outlines park classifications based on the Level of Service (LOS). For the purpose of this plan, the following classifications will serve only as general guidelines and a tool to plan for future park needs.

The categories of this hierarchy include mini parks, neighborhood parks, and community parks. Park service adequacy is evaluated in three ways:

Facilities by classification: Parks are classified into different categories to determine the levels and areas they serve.

Facilities by Geographic Distribution: The service radius of each facility is analyzed to identify geographical gaps in service.

Facilities in Relation to Population Service Standards: National standards for the provision of park and recreation facilities are applied to Emily's present system.

Mini Park

Description: Smallest park classification that is used to address limited or unique recreational needs (example: the downtown pocket park).

Location Criteria: Less than ¼ mile distance in residential setting.

Size Criteria: 1,500 square feet to one acre in size, can exceed up to five acres.

Site Selection Guidelines: Site should be easily accessible from surrounding area and link to community trail systems.

Development Guidelines: Park facilities similar to those found in a neighborhood park; however, there are generally no programmed activities and no specific design guidelines. Park design can be a function of needed use, e.g., picnic area, shaded seating area, etc.

Neighborhood Park

Description: Basic unit of park system that serves as the recreational and social focus of the neighborhood. Typically developed to provide both active and passive recreational opportunities for residents of all age groups living in the surrounding neighborhoods. Traditional NRPA standards call for about two acres of neighborhood parks per 1,000 residents.

Location Criteria: ¼ mile to ½ mile service area radius.

Site Selection Guidelines: Site should be easily accessible from surrounding neighborhood, be centrally located, and link to a community greenway system. Site development should provide for both active and passive recreational opportunities. The landscape of the site should possess predevelopment aesthetic value and not be outlots.

Development Guidelines: Park development should be a balance of 50 percent active space and 50 percent passive space for recreational uses on the site and typically not be programmed. Appropriate park elements would include: play equipment, court games, open “non-programmed” play field or open space, tennis courts, volleyball courts, shuffleboard courts, horseshoe pits, ice skating areas, wading pool, or splash pad. Other park facilities should include picnic areas, internal trail system, and general open space for enjoying the park scenery. Neighborhood parks should provide at least 7-10 parking spaces, and limited lighting should be provided for facility illumination, security, and safety.

Community Park

Description: Larger in size and serves a broader purpose than the neighborhood park with the purpose of providing recreational opportunities for several neighborhoods or larger sections of the community. Typically developed to provide both active and passive recreation opportunities for larger groups while preserving unique landscapes and open spaces.

Location Criteria: Should serve two or more neighborhoods with a ½- to 3mile service area radius.

Size Criteria: 30 – 50 acres, size may be determined as needed to accommodate desired uses.

Site Selection Guidelines: Site should be easily accessible from entire service area, should be centrally located, and should have strong connection to other park areas. Site development should provide for both active and passive recreation opportunities. The site, when possible, should be adjacent to natural resource areas and greenways.

Development Guidelines: While the community park should be designed to accommodate both active and passive recreational opportunities, programming should remain, for the most part, limited. Appropriate active park elements would include: larger play areas with creative play equipment for a range of ages, court games, informal ball fields for youth play, tennis, volleyball and shuffleboard courts, horseshoe pits, ice skating, swimming pools and beaches, archery ranges, and disc golf.

Greenways

Greenways link park system components to create a cohesive park, recreation, and open space system that emphasizes the natural environment. Greenways allow for safe, uninterrupted pedestrian movement among parks throughout a community and can enhance property values.

Open Space

Open space, broadly defined, includes woodlands, fields, wetlands, streambanks, floodplains, steep slopes, and unique geological formations — unbuilt areas. Open space provides protection for scenic areas and endangered habitats. It also continues to provide land for local food production and can help shape the form of urban growth by providing protected lands.

The City Park is south of East County Road 1. Features of this park include towering pines, new playground equipment, a basketball hoop, pavilion, picnic tables, bench seating, and grills. Also enjoy a photo opportunity with "Willy the Walleye" and the historical skidder. This park is host to the community's celebration of Emily Day as well.

City Ballpark (west park) area is south of West County Road 1. Features of this park include two regulation and one little league ballfield, a pavilion, fenced playground, basketball hoop, bench seating, picnic tables, grills, and a tennis court.

The City Hall Park is on the grounds of the City Hall (former Emily Charter School). Features include diverse trees, a basketball court, playground, picnic tables, bench seating, open field space, and ample parking.



The goals and policies in this section are meant to guide and inform future decision-making and actions regarding park network. Goals are broad statements that describe a desired outcome and are long range in scope. Policies describe the general action in which programs and activities are to be conducted to achieve the greater goals. Policies speak to the underlying context and values that are often place-based and specific. Community feedback forms the basis and foundation of the goal and policy work.

Park Connections Goals

Short Term

Goal 1: Continuously study the changing recreational needs and respond to the desires of the residents.

Policies:

- Conduct a community survey every three years.
- Analyze and respond to the desires of residents when developing park facilities.
- Design parks to serve residents of all ages.
- Develop recreational programming to serve residents of all ages.
- Understand and balance the needs of park users.

Goal 2: Provide recreation opportunities that appeal to all generations.

Policies:

- Work to provide hiking access to high-quality nature areas.
- Provide safe, accessible trail networks within the parks, connecting to the entire trail network.
- Improve access to water-oriented recreation through beaches, docks, boat, kayak and canoe launches, fishing opportunities, etc.
- Promote activities that can be done with friends and family.
- Design for universal accessibility.
- Increase access to indoor recreation.

Goal 3: Develop and prioritize maintenance for the development of future facilities as well as existing facilities.

Policies:

- Prioritize park funds to address identified needs within the park systems.
- Incorporate maintenance and replacement costs into investment decisions for parks.
- Create revenue-generating sources within the parks.

Goal 4: Provide natural experiences within the existing park system.

Policy:

- Improve wayfinding and access to existing natural features such as wooded areas, hikes, and sensitive environmental areas.
- Conduct a natural resources inventory.
- Protect natural resources and habitats within the existing park network.
- Utilize practices that minimize the impact to habitats when developing parks.

Long Term

Goal 5: Maintain and develop a comprehensive park system to serve the recreational needs of all residents.

Policy:

- Improve wayfinding and signage.
- Make existing amenities more usable and improve the user experience.
- Provide safe road crossings.
- Extend fall, winter, and spring uses of trail networks.
- Develop trail loops in neighborhoods and community parks.

Goal 6: Explore opportunities to connect existing parks through walking and biking networks.

Policy:

- Continue to expand the community's sidewalk network on collector and arterial streets.
- Develop trail loops within community parks.
- Coordinate new trails with the city, county and state road construction and reconstruction projects.
- Where feasible, provide paved trails that create community connections in greenway corridors, away from roads.
- Promote natural-surface hiking, cross country skiing, and biking trail networks within the park system.

Goal 7: Find ways to acquire parcels adjacent to existing park and open spaces to provide and ensure adequate spaces for future generations.

Policy:

- Protect natural areas in the city.
- Acquire lands through trusts, conservation easements, partnerships, etc.
- Identify greenways and incorporate trails into these corridors as opportunities arise.
- Encourage private conservation easements.
- Connect residents to water.

Goal 8: Encourage community events that facilitate community interaction, community pride, and identity.

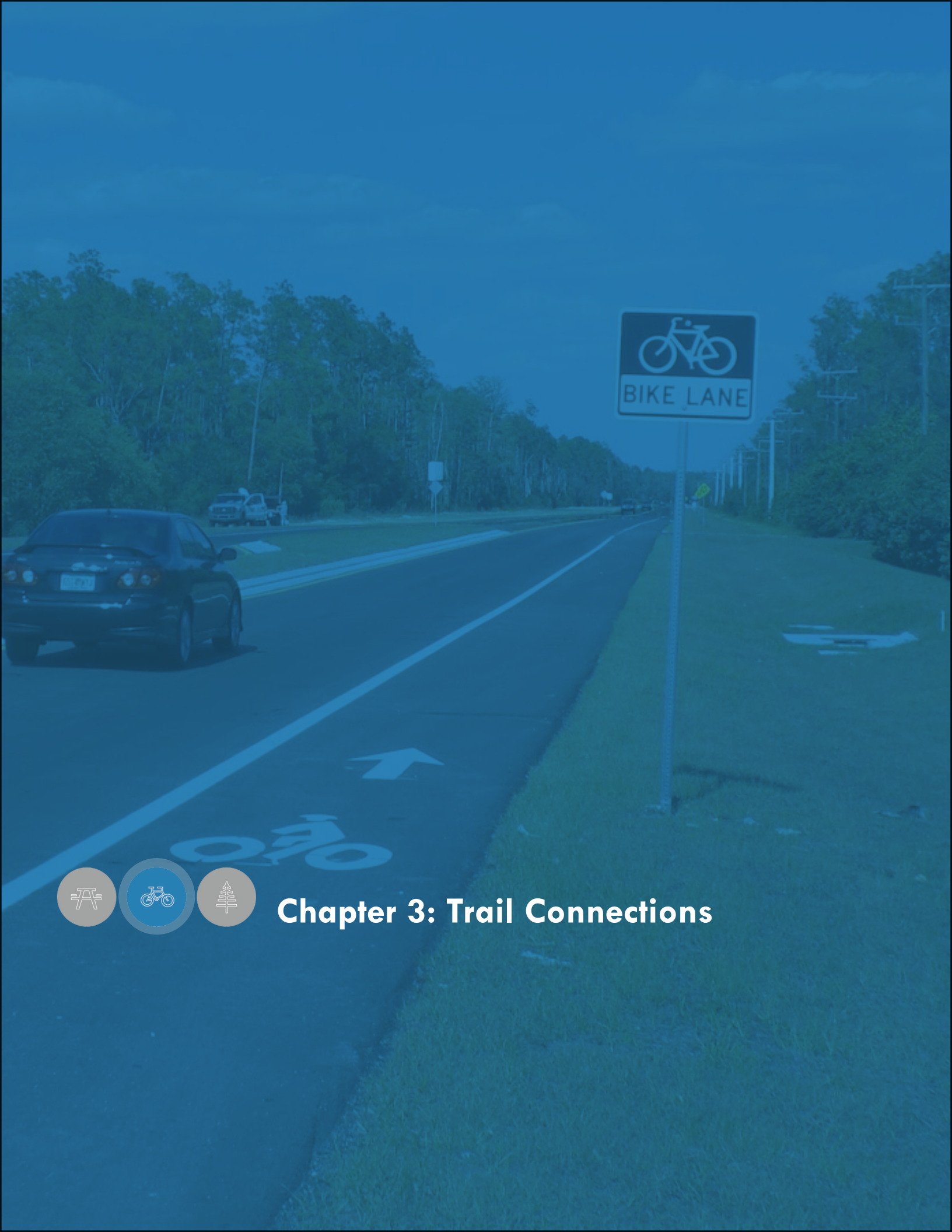
Policy:

- Encourage volunteer or community groups to be involved in the decision-making process.
- Develop programming for the parks.
- Coordinate with civic groups to promote and develop activities for all seasons (e.g., foot races, triathlons, cross-country ski races).

Goal 9: Improve indoor activities and programming offered and increase accessibility for indoor recreation.

Policy:

- Focus adult programs on fitness and wellness.
- Expand senior programming.
- Provide low-impact opportunities for fitness, health, and wellness.
- Develop events and clubs, such as bike groups, walking groups, swimming groups, and volunteer opportunities.




BIKE LANE



Chapter 3: Trail Connections

Trail Connections

The scenic beauty and trails bring ATV, OHV, and snowmobiling enthusiasts throughout the region and state to the City of Emily. Snowmobiling and ATV use are beloved pastimes for many Emily residents and are dynamic components of local tourism. Via the DNR trail route, running north and south through town, riders have access to hundreds of trail miles throughout the region. Designated parking facilities have been established within the downtown core. The city has authorized ATV use on all roads within the City of Emily. The motorized and nonmotorized trails are a big part of Emily's culture and are a vital component to the city's recreation system. This chapter will evaluate both nonmotorized and motorized trails within the City of Emily. The first portion of this chapter will focus on recreational trail use.

Nonmotorized Trail Networks

A safe, direct, and complete network provides convenient access to key destinations while minimizing exposure to motor vehicle traffic.² Communities with strong ties to publicly managed land are prioritizing connections to these natural areas.

Trails function as both recreation and transportation systems of a city. Trails provide sustainable and active modes of transportation for residents, tourists, commuters, and outdoor enthusiasts. The nonmotorized trail network accommodates a number of user types:

- Pedestrians
- Bicyclist
- Skiers
- In-line skaters

Trail networks should be designed with specific user groups in mind, as well as shared multi-use capacities.

Nonmotorized unpaved trails: These trails are dedicated for biking, walking, skiing, snowshoeing, etc. The use of motorized vehicles is prohibited on these trails. Trail surfaces may include compacted soil, gravel, and mowed grass. These trails may be utilized for cross-country skiing or snowshoes during the winter months. Trails for walkers and hikers do not need to be paved.

Multi-use trails: These trails are wider and off-street paved paths that are designed to be shared by pedestrians and bicyclists. These trails

“ A walkable and bikeable community is one in which active transportation trips are safe and comfortable for **people of all ages and abilities.**

All ages means that children as young as eight can walk and bike independently from their parents. It means that older adults can get around comfortably without a car. Facility needs vary by age, and there is no “one size fits all” solution.

All abilities means that people using mobility devices or people with limited vision are not faced with barriers.”

*Small Town and Rural Multimodal
Networks*

² *Small Town and Rural Multimodal Networks*, U.S. Department of Transportation, Federal Highway Administration

can be utilized as cross country-skiing and snowshoe trails during the winter months. Trails for cyclists need to have a hard surface.

Bicycle network

The City of Emily has a limited system of on-street bike lanes and off-street multi-use trails. At the time of this plan, no on-street or off-street trails exist.

Proposed bicycle facilities can be accommodated in different ways:

Bicycle Lanes: which are dedicated, on-street, marked lanes for one-way travel going in the same direction as vehicles in the adjacent traffic lane and must be a minimum of four feet (4'0") wide within a lane that is at least 14 feet (14'0") wide to the curb. Ideal bike lanes are five feet wide

Bicycle Routes: where bicycle lanes are not feasible due to right-of-way constraints, alternative bicycle facilities should be considered. Bicycle routes are road segments that are identified by directional and informational markers. These routes do not include delineated lanes for bikes only. Shared marking, or "sharrow", or wide shoulders to accommodate bicyclists are common solutions.

Solutions for Bicycle Facilities:

Bike Lane: a dedicated, marked, on-street lane for bicyclists.

Bike Route: On-street routes where cyclists share the road with cars. Routes may be marked by pavement paint or other signage.

Multi-use Trail: Wider, off-street paved pathways that are designed to be shared by pedestrians and cyclists.

State Law and Policy

By state law, bicyclists have the same rights and responsibilities and motorized drivers. Bicyclists are allowed to use public streets and highways in the state. Generally, bicycling is allowed on all roads unless the road is signed indicating bicycling is prohibited. Bicycling is not allowed on sidewalks in business districts unless authorized by the local unit of government. Local government may prohibit bicycling on any sidewalks under its jurisdiction.

Mn/DOT Bikeway Facility Design Manual states, "Adding or improving paved shoulders can be the best way to accommodate bicyclists in rural areas and can extend the service life of a road surface."

General Design Factors

The Mn/DOT Bikeway Facility Design Manual states, "There are two ways for serving bicycling needs in an identified corridor or route, by integrating bicyclists on the arterial or collector road or using a facility parallel to the corridor. Separated paths and trails may be an option only in some cases."³ Corridor treatments that involve the integration of the bicyclist with the road network would include bike lanes, paved shoulders, bicycle boulevards, or wide outside lanes.

³ *Mn/DOT Bikeway Facility Design Manual*, Chapter 2: Bikeway Network Planning and Project Coordination, p. 46.

MnDOT’s Bikeway Facility Design Manual outlines the bicycle facility network classification system. This classification system is a way to classify bicycle routes according to their purpose and intended use, whether it’s a primary, local, access, or tour route.

Table 2-1: MnDOT Bicycle Facility Network Classification System

Classification (significance)	Function	Attributes
Primary route (regional)	This is typically a regional route that connects major employment centers, retail, commercial, industrial, residential and entertainment destinations This route is typically multi-jurisdictional, providing service within and between cities, counties, and may even cross state borders. Primary routes serve the largest area and connect suburbs to downtown or small town to small town.	This route provides connections by the most direct route. Limited number of stops per mile to maintain momentum. Enables bicycles speeds of 20 mph or more. Relatively flat grade. Incorporate destination signing and lighting.
Local route (local)	This route type connects local routes to primary routes and neighborhood to neighborhood. Small to medium retail are major destinations. Provide connections between home and school and parks. Public transit services should be in close proximity to local routes.	Access to key destinations such as libraries, schools, employment centers. Relatively flat grade signing and lighting important.
Access route (intra-neighborhood or neighborhood)	This route type provides connections within a neighborhood or between neighborhoods.	Access to key destinations such as libraries, schools, employment centers. Relatively flat grade. They are often low motor vehicle traffic local streets with lower motor vehicle speeds. Signing and lighting important.
Tour route (regional, local or neighborhood)	This route type is to serve and connect to recreational destination such as paths that circulate lakes or parks, but these routes may also serve as a primary, local or access route.	Attributes may be any of the above.

The selection of the bikeway suite for a travel corridor depends on many factors: bicyclists’ abilities, corridor conditions, current and future land use, topography, population growth, roadway characteristics, and the cost to build and maintain the bikeway.⁴

Bikeways include both on- and off-road facilities. These include bike lanes, paved shoulders, shared lanes, wide outside lanes, and shared use paths.

⁴ Mn/DOT Bikeway Facility Design Manual, Chapter 2: Bikeway Network Planning and Project Coordination, p. 56.

Bike lanes, paved shoulders, and wide outside lanes allow bicyclists and motorists to operate parallel to each other in the roadway, maintaining separation, without requiring motorists to change lanes to pass bicyclists.

Shared-use paths and greenways offer opportunities not provided by the road system and can serve as direct commute routes. This solution can help close gaps in the bicycle network and navigate around natural barriers.

For the purposes of this chapter, a series of design solutions will be explained to further begin conversations about improving the pedestrian and bicycle network in Emily, in an effort to form a complete network. The information provided in this section is from the Mn/DOT Bikeway Facility Design Manual, Chapter 4: On-Road Bikeways.

Bicycle Lane (Bike Lane)

A bike lane is a portion of the roadway or shoulder designated for exclusive or preferential use by people using bicycles. Bicycle lanes are distinguished from the portion of the roadway or shoulder used for motor vehicle traffic by striping, marking, or other similar technique.

Paved Shoulder

The shoulder is the edge or border of a roadway that is contiguous with, and on the same level as, the regularly traveled lanes. Bicyclists require a paved surface for operation. Any unpaved shoulder width does not accommodate bicycles. The width of a shoulder bikeway and separation from the travel lane depend primarily on roadway motor vehicle speed and traffic volume.

Shared Lane

On any roadway where a bicycle may legally be operated, bicycles may need to share a travel lane with motor vehicles if the road does not have a bike lane, a paved shoulder, or a separate shared-use path. A shared travel lane may be an appropriate bikeway on some low-speed, low-volume streets or roads. Where a shared lane is intended to be part of a bike route, it should be designed as a bikeway to direct bicyclists and inform motorists. Travel lanes are typically 12 feet wide, or less.

Wide Outside Lane

A wide outside lane (the right-most through traffic lane) is shared by bicyclists and motorists but designed with extra width to accommodate bicycles. A wide outside lane should be no less than 14 feet and no more than 16 feet wide.



Bike Lane: a dedicated, marked, on-street lane for bicycles.



Paved Shoulder: a dedicated lane that is contiguous with the adjacent lane.



Shared Lane: Bicycles share the travel lane with motor vehicles.

For the purposes of this section, guidelines for off-street paths will be explored. In most cases, a separated path from the roadway can serve multiple users such as bicyclists, pedestrians, rollerskaters, and well as other users. The information provided in this section is from the Mn/DOT Bikeway Facility Design Manual, Chapter 5: Shared-Use Paths.

Shared-Use Path

Shared-use path is typically located on exclusive right-of-way, with no fixed objects in the pathway and minimal cross flow by motor vehicles. Portions of a shared-use path may be within the road right-of-way but physically separated from the roadway by a barrier or landscaping. Users typically include bicyclists, in-line skaters, wheelchair users (both nonmotorized and motorized) and pedestrians, including walkers, runners, people with baby strollers, or dogs with people. Shared-use paths are a valuable element of bicycle networks and serve both transportation and recreation functions, providing route continuity for commuting and recreation trips, access to destinations not otherwise available to bicyclists on the street and road system, and access between buildings and other discontinuities in the street network. Shared-use paths are usually designed for two-way travel except under special conditions.

Trail

The term “trail” may have different meanings depending on the context, but generally does not have the same meaning as the term “shared-use path.” There are many types of trails, and each type provides different experiences for different users. Trails may be used for a variety of reasons, including exercise, transportation, recreation, or education. Trail users may include hikers, cyclists, skaters, equestrians, snowmobilers, pedestrians, and others. Trails that are designed to provide a bicycle transportation function while supporting multiple users are called shared-use paths.

Greenway

A greenway is a linear space established along a corridor, such as a riverfront, stream valley, or other natural or landscaped system. Greenways may connect open spaces, parks, nature reserves, cultural features, or historic sites with populated areas and with one another. Greenways may or may not include a bikeway, shared-use path or multi-use trail.



Shared-Use Path: A physically separated pathway from the roadway.



Trail: A generic phrase used for a variety of reasons; hikers, skaters, equestrians, pedestrians, and bicyclists.



Greenway: A linear space along a riparian or natural corridor. Greenways are meant to connect places of significance.

Sidewalks

Sidewalks typically have the following characteristics that make them **not suitable for bicycling**:

- Designed primarily for walking pedestrians.
- Bicycle use of sidewalks is prohibited by local ordinance in some areas.
- Sidewalk geometrics are not intended to safely accommodate bicycles.
- Typically contain sign posts, hydrants, benches, trees, and other fixed objects.
- Direct access from doorways, gates, and parked cars causes conflicts with bicycling.
- May have frequent intersections with driveways, alleys, roadways, and other sidewalks

Designating a sidewalk as a shared facility for bicycle travel is not recommended.

Complete Streets

Complete streets are streets that are designed to accommodate people of all ages and abilities. Complete streets includes all modes of transportation: pedestrians, bicyclists, motorists, and transit riders.

The complete street approach helps maximize the use of public roadways and right-of-way to provide comprehensive and connected multimodal transportation systems.

Complete streets aim to:

- Provide easy crossing and travel routes.
- Increase opportunities for physical activity.
- Safely accommodate multiple modes of transportation: pedestrians, bicyclists, motorists, and transit riders.
- Increase walkability.

In 2010, Governor Tim Pawlenty passed the state Complete Streets law after strong bi-partisan support in the Legislature. The law applies to the Minnesota Department of Transportation, and Mn/DOT is working through its Complete Streets Partnership to implement.

Complete streets offer significant benefits for residents and provide a higher quality of life. This solution will provide safe access for children, seniors, and people with disabilities. Recognizing that not all streets must be “complete” in nature, but where feasible, the City of Emily should evaluate appropriate routes and corridors as reconstruction of aging streets is on the horizon.



It's about the basics:

improving the transportation system's safety and functionality for all users. Its main premise is nothing more than for people to get around safely and efficiently from point A to point B, using whatever mode of travel they choose.”

Minnesota Department of Transportation



Complete Streets means that our streets are planned to be safe and accessible for pedestrians, transit riders, bicyclists, and drivers--all users, regardless of age or ability.”

Minnesota Complete Streets Coalition

Motorized

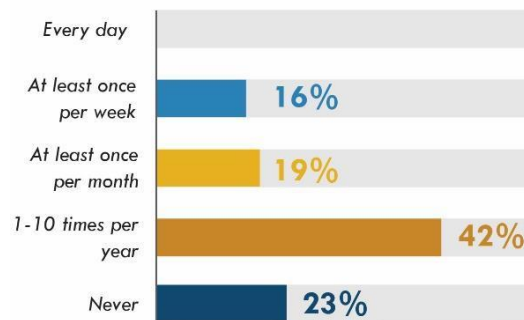
The use of snowmobiles, ATV's and OHV's have long been a part of the culture in the City of Emily. Motorized recreation offers opportunities throughout all seasons and contributes to the local tourism industry. Recreational trails are an important aspect of the city's recreation system.

The motorized trail network is maintained and operated by the Emily-Outing Snowbirds. Currently the organization maintains and grooms 100 miles of trails throughout the area. Private trails traverse through private property and are part of a larger network of motorized trail options.

The Minnesota Department of Natural Resources has established snowmobile and ATV regulations for the operation of motorized vehicles on public rights-of-way.

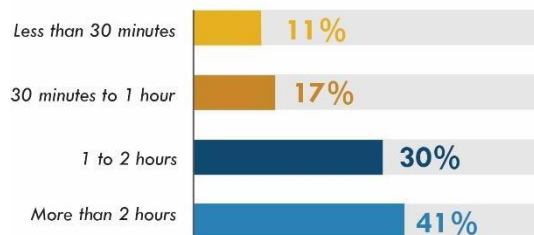
Not all trail uses are compatible and can pose safety hazards when multiple uses are combined. In an effort to reduce conflicts among user groups and in an effort to maximize safety, **it is recommended that motorized and nonmotorized trails be separate.**

Q7: How often, on average, do you use the ATV/Snowmobile trails?



Results from Park, Trail, and Open Space survey, August 2017

Q8: How much time do you spend on the trail each year?



Results from Park, Trail, and Open Space survey, August 2017

Q10: What trail improvements or trail connections are needed in the City of Emily?

“Additional ATV trails, and improve Emily to Outing.”

“Keep ATV and snowmobile friendly.”

“Better ATV signage in city limits opening of Emily to Blind Lake Trail, picnic tables and restroom in new parking area by Sweets & Such.”

“Continuation of trail upkeep to allow safe ATV travel into town.”

“Grading and removing fallen trees from ATV/snowmobile trails.”

“OHV trail to south.”

“Parking for ATV and snowmobile trailers.”

“More easy access to businesses via snowmobile or ATV.”

Trail Plan

Trail Service Level: Service level of a trail refers to capacity of the trail or system to meet the needs and expectation of the population or user group within the geographical area. The following describes the trail system located the city or directly adjacent to city limits:

State Trails are typically destination trails and serve a statewide population. Travel time to a trailhead is often one to four hours. State trails are a minimum of 20 miles long and weave users through high-quality natural resources and scenic landscape.

Regional Trails serve multiple cities and/or counties in greater Minnesota. Average commute to a trailhead is 30 minutes. Typically, a trail must be long enough for at least an hour of nonmotorized recreational travel, equivalent to about five miles of walking or 20 minutes of cycling.

Local Trails provide close proximity opportunities within a five-minute drive or 10-minute walk. These trails often have direct access from neighborhoods. Population trail locations are usually adjacent to lakes, natural resources, and local scenery. There are presently no designated bike lanes in the city.

Private Trails are those that traverse private land as part of the larger trail system. The most common trails are grant-in-aid snowmobile trails.

Winter-Use Trails are maintained for cross-country skiing, snowshoeing, winter hiking, and snowmobiling to offer residents and visitors the ability to get outdoors for exercise and enjoyment during winter months.

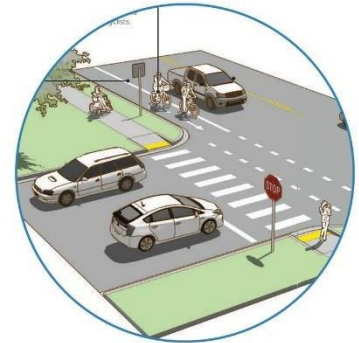


Illustration of a bike lane, a designated space made for bicyclists.



Illustration of a shared use path, a separate path from motorized traffic.

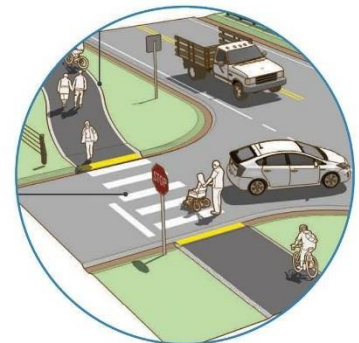


Illustration of a sidepath, a bidirectional pathway offering high-quality experiences compared to on-street facilities.

The following pages provide examples of mixed traffic facilities, visually separated facilities, and physically separated facilities. These examples were originally in the *Small Town and Rural Multimodal Networks* guide by the Federal Highway Administration. The purpose of these illustrations is to continue the conversation regarding a complete network throughout the City of Emily. The pages provide an in-depth overview of the following facilities:

Mixed Traffic Facilities:

- **Yield Roadway:** an on-street dedicated lane that serves pedestrians, bicycles, and motor vehicle traffic in the same slow-speed travel corridor.
- **Bicycle Boulevard:** an on-street application where pavement markings indicate a “share the lane” approach, and where bicycling is the priority.
- **Advisory Shoulder:** still in the experimental phase, advisory should create usable shoulders when the roadway is too narrow to accommodate bicycling.

Visually Separated Facilities:

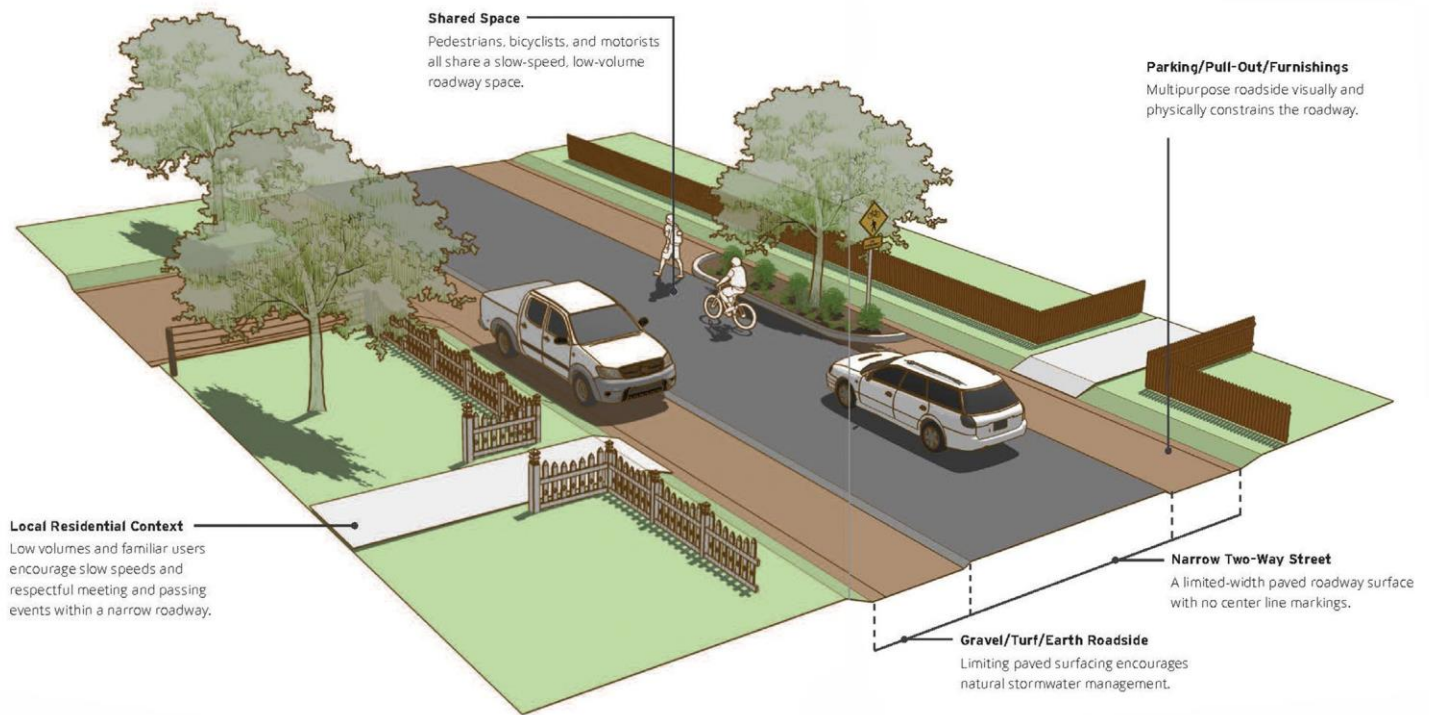
- **Paved Shoulder:** located on the edge of the roadway, this lane is meant to enhance the functional space for bicyclists, in an effort to travel with more separation from the adjacent travel lane.
- **Bike Lanes:** designated lanes with a specific space made for bicyclists. This separation is created by pavement markings and optional signs.

Physically Separated Facilities:

- **Shared-Use Path:** provides a travel area separate from motorized traffic. These paths can provide a low-stress experience for a variety of users.
- **Sidepath:** a bidirectional path adjacent and parallel to the roadway. These paths offer a high-quality experience for all users as compared to on-street facilities.

The following illustrations highlight specific components of each bicycle facility such as benefits, signage, marking, implementation and accessibility. A complete list of components can be found in Chapters two through four of the *Small Town and Rural Multimodal Networks* guide.

Mixed Traffic Facilities



Yield Roadway

A yield roadway is designed to serve pedestrians, bicyclists, and motor vehicle traffic in the same slow-speed travel area. Yield roadways serve bidirectional motor vehicle traffic without lane markings in the roadway travel area.

Benefits

- Less costly to build and/or maintain than fully paved cross sections.
- Connects local residential areas to destinations on the network.
- Limits impermeable surface area and minimizes stormwater runoff.
- Maintains aesthetic of narrow roads and un-curbed road edges.
- Encourages slow travel speed when narrower than 20 ft (6.0 m).
- Can support a larger tree canopy when located within wide unpaved roadside areas.
- Supports on-street or shoulder parking for property access.
- Low maintenance needs over time.

Markings

No markings are necessary to implement a yield roadway.

- Do not mark a center line within the travel area. The single two-way lane introduces helpful traffic friction and ambiguity, contributing to a slowspeed operating environment.

Signs

Use signs to warn road users of the special characteristics of the street. Potential signs include:

- A PEDESTRIAN (W11-2) warning sign with ON ROADWAY legend plaque.
- Use a Two-Way Traffic warning sign (W6-3) to clarify two-way operation

Implementation

In rural communities with a disconnected street network, local streets are the only viable connection to a scene of an emergency. Implementing agencies should work closely with emergency response stakeholders.

Accessibility

Yield roadways allow motor vehicles, bicyclists, and pedestrians to share the same space. On very low-volume and low-speed streets, pedestrians and bicyclists may be comfortable using the roadway with the occasional vehicle. If this facility is intended for use by pedestrians, it must meet accessibility guidelines for walkways.

Mixed Traffic Facilities



Bicycle Boulevard

A bicycle boulevard is a low-stress shared roadway bicycle facility, designed to offer priority for bicyclists operating within a roadway shared with motor vehicle traffic.

Benefits

- Increases comfort for people bicycling by reducing motor vehicle operating speeds and volumes, if diversion is included.
- Connects local residential roads to commercial corridors and community services such as schools.
- Improves conditions for pedestrians when implemented with sidewalks and enhanced pedestrian crossings.
- May reduce the incidence of serious injuries through reduced travel speeds.
- Improves the quality of life for residents through calmer traffic and safer crossings.
- Less visually impactful than separated facilities.

Markings

- Use markings to encourage motorists to pass bicyclists at a safe distance.
- Do not mark a center line on bicycle boulevard facilities unless it serves as a short channelization device. Clear identification of the bicycle boulevard is important for road user awareness of the facility.
 - Shared lane markings (SLMs) are the standard marking for indicating shared roadway bicycle operations.
 - Place SLMs in the center of the travel lane to minimize wear and encourage riding a safe distance from parked cars.

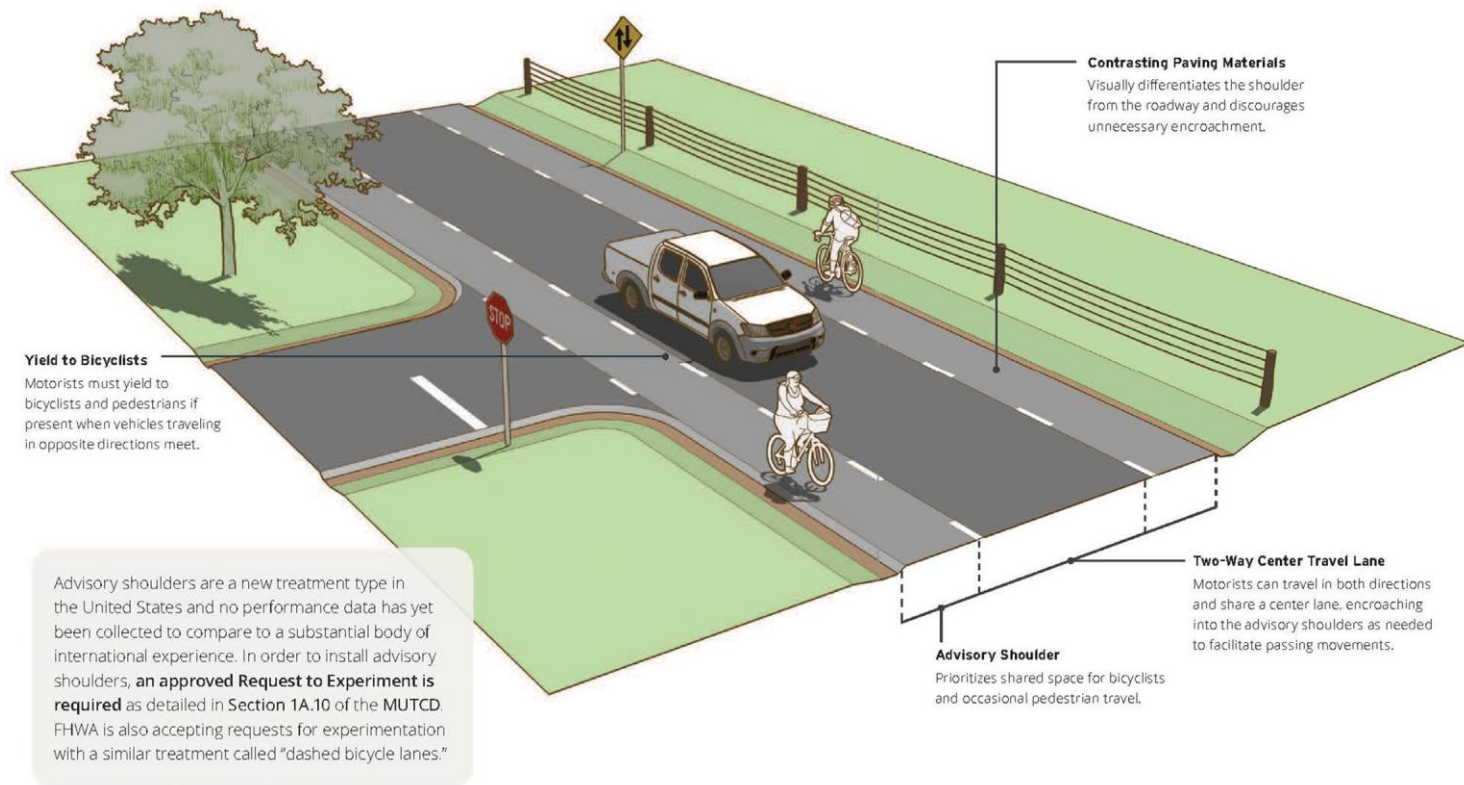
Implementation

Development of bicycle boulevards in rural settings can often be challenging due to a lack of alternate through roadways and the concentration of motor vehicle traffic on arterials. Disconnected road networks may maintain low traffic speeds and discourage through traffic on local roads, but these benefits often sacrifice connectivity.

Signs

Bicycle boulevards are designed to prioritize use by bicyclists and are not intended for use by pedestrians. On bicycle boulevards, the appropriate pedestrian facility is generally a sidewalk. If the bicycle boulevard is intended to facilitate pedestrian travel within the roadway it must be accessible.

Mixed Traffic Facilities



Advisory Shoulder

Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

Benefits

- Provides a delineated but nonexclusive space available for biking on a roadway otherwise too narrow for dedicated shoulders.
- May reduce some types of crashes due to reduced motor vehicle travel speeds.
- Minimizes potential impacts to visual or natural resources through efficient use of existing space.
- Functions well within a rural and small town traffic and land use context.
- Increases predictability and clarifies desired lateral positioning between people bicycling or walking and people driving in a narrow roadway.
- May function as an interim measure where plans include shoulder widening in the future.
- Supports the natural environment through reduced

Markings

- A broken lane line used to delineate the advisory shoulder should consist of 3 ft (1.0 m) line segments and 6 ft (2.0 m) gaps.
- Where additional edge definition is desired, stripe a normal solid white edge line in addition to the broken advisory shoulder line.
- In general, do not mark a center line on the roadway. Short sections may be marked with center line pavement markings to separate opposing traffic flows at specific locations, such as around curves, over hills, on approaches to at-grade crossings, and at bridges.

At these locations, widen the paved roadway surface to provide space for paved bicycle-accessible shoulders and conventional width travel lanes.

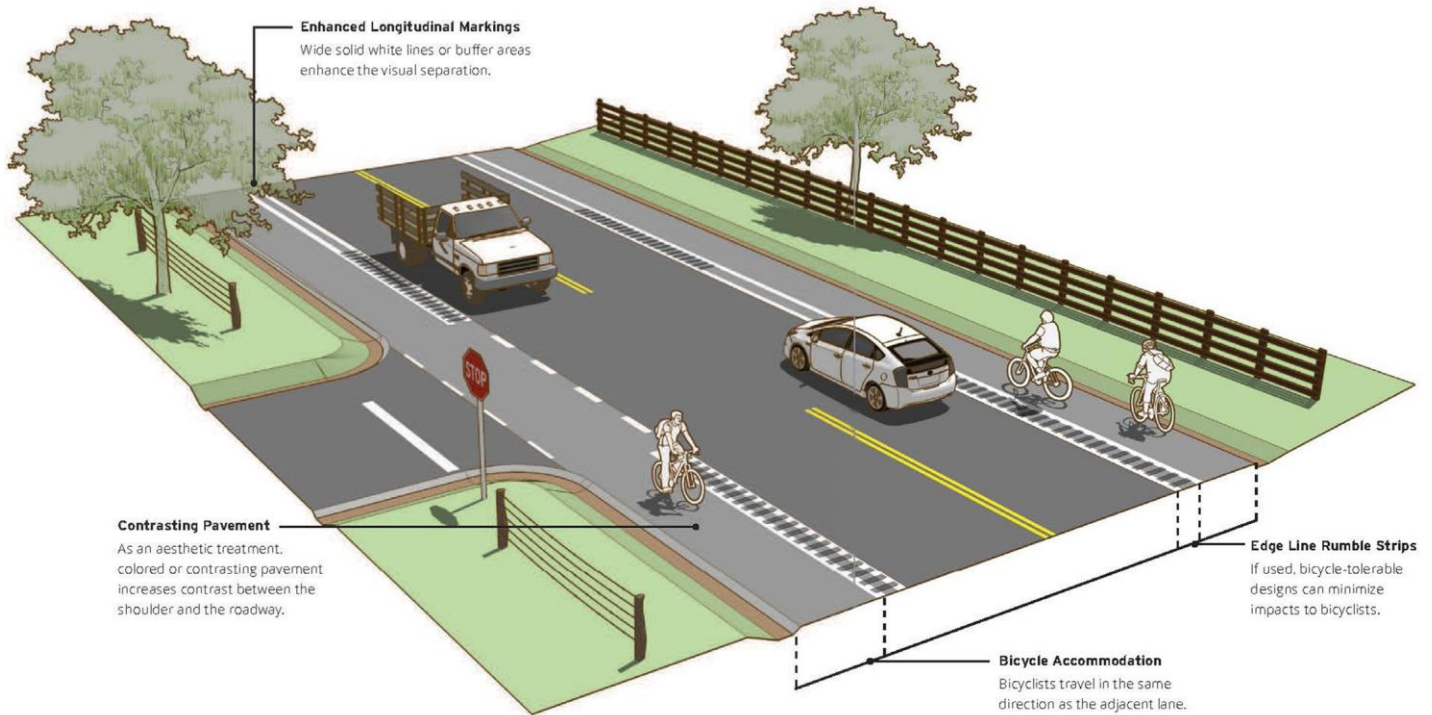
Implementation

In order to install advisory shoulders, an approved Request to Experiment is required as detailed in the MUTCD 2009, Sec. 1A.10. FHWA is also accepting requests for experimentation with a similar treatment called “dashed bicycle lanes.”

Accessibility

Advisory shoulders as described here are not intended for use by pedestrians. When advisory shoulders are intended for use by pedestrians, they must meet accessibility guidelines.

Visually Separated Facilities



Paved Shoulder

Paved shoulders on the edge of roadways can be enhanced to serve as a functional space for bicyclists and pedestrians to travel in the absence of other facilities with more separation.

Benefits

- Improves bicyclist experiences on roadways with higher speeds or traffic volumes.
- Provides a stable surface off the roadway for pedestrians and bicyclists to use when sidewalks are not provided.
- Reduces pedestrian “walking along roadway” crashes.
- Can reduce “bicyclist struck from behind” crashes, which represent a significant portion of rural road crashes.
- Provides advantages for all roadway users, by providing space for bicyclists, pedestrians, and motor vehicles.

Signs

No signs are required on paved shoulders, but signs may be used to identify a road as a bicycle route.

- Bike Route Guide (D11-1c) signs are used to indicate to bicyclists that they are on a designated bikeway and make motorists aware of the bicycle route.

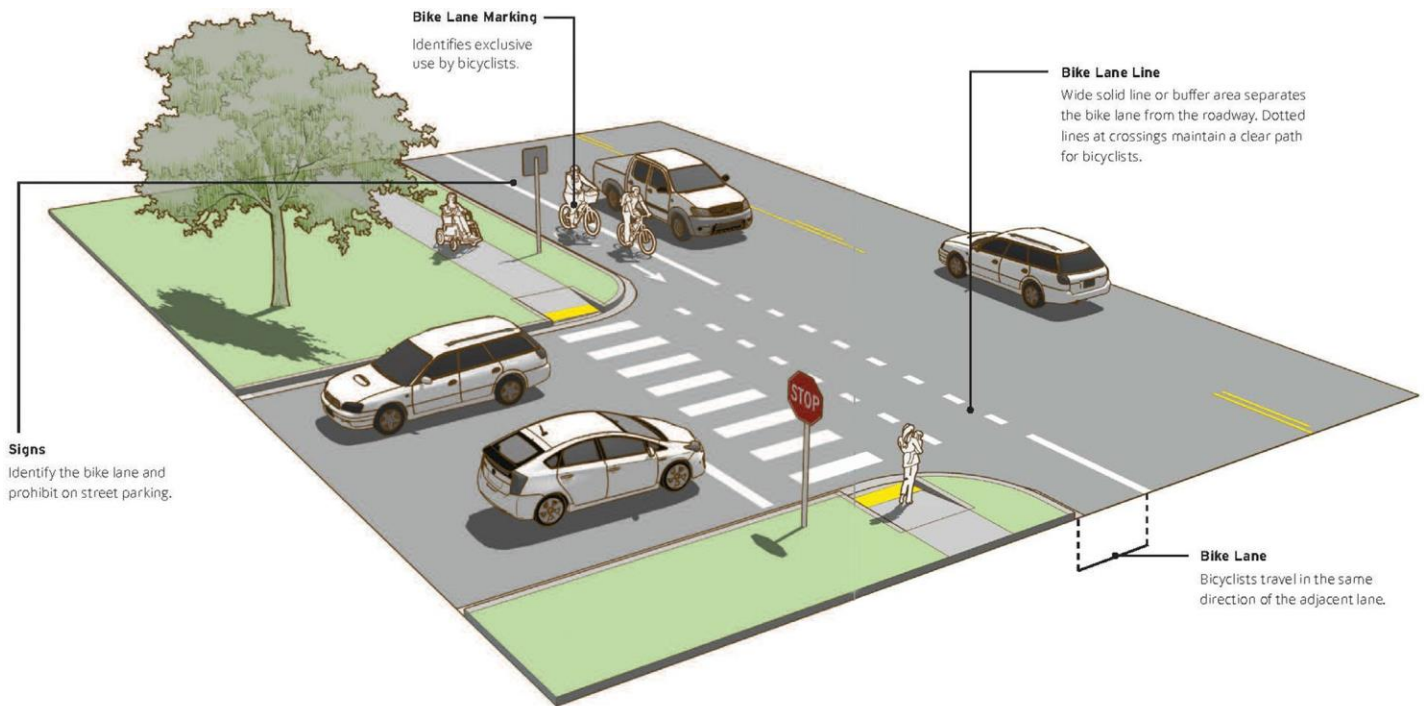
Implementation

Include or upgrade shoulders during roadway resurfacing, rehabilitation, and reconstruction in new construction projects. For more information on implementation strategies, refer to the FHWA Resurfacing Guide 2016.

Accessibility

When shoulders are intended for use by pedestrians, they must meet accessibility guidelines.

Visually Separated Facilities



Bike Lanes

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and optional signs. A bike lane is located directly adjacent to motor vehicle travel lanes and follows the same direction as motor vehicle traffic.

Benefits

- Provides additional separation distance between the sidewalk and motor vehicle travel area, if a sidewalk is present.
- Connects and completes bikeway networks through built-up areas.
- Provides a designated space on the roadway suitable for many skilled bicyclists within built-up areas of small communities.
- Can support school access by bicycle when configured as a wide bike lane on lower-speed, low-volume streets.
- Provides additional visual cues to drivers that they should expect bicyclists on the roadway. This can be particularly useful when transitioning to a built-up area from a highway context.

Markings

Mark a bike lane line with a normal solid white line and a standard bike lane symbol marking. Standards and guidance for applying these elements can be found in the MUTCD 2009. Lane markings should remain solid and not dotted at driveway crossing. The MUTCD does not recognize a driveway as an intersection (MUTCD 2009, AASHTO Bike Guide 2012).

Signs

An optional bike lane sign may be used to supplement the bike lane pavement markings. Standards and guidance for applying these elements can be found in the FHWA MUTCD.

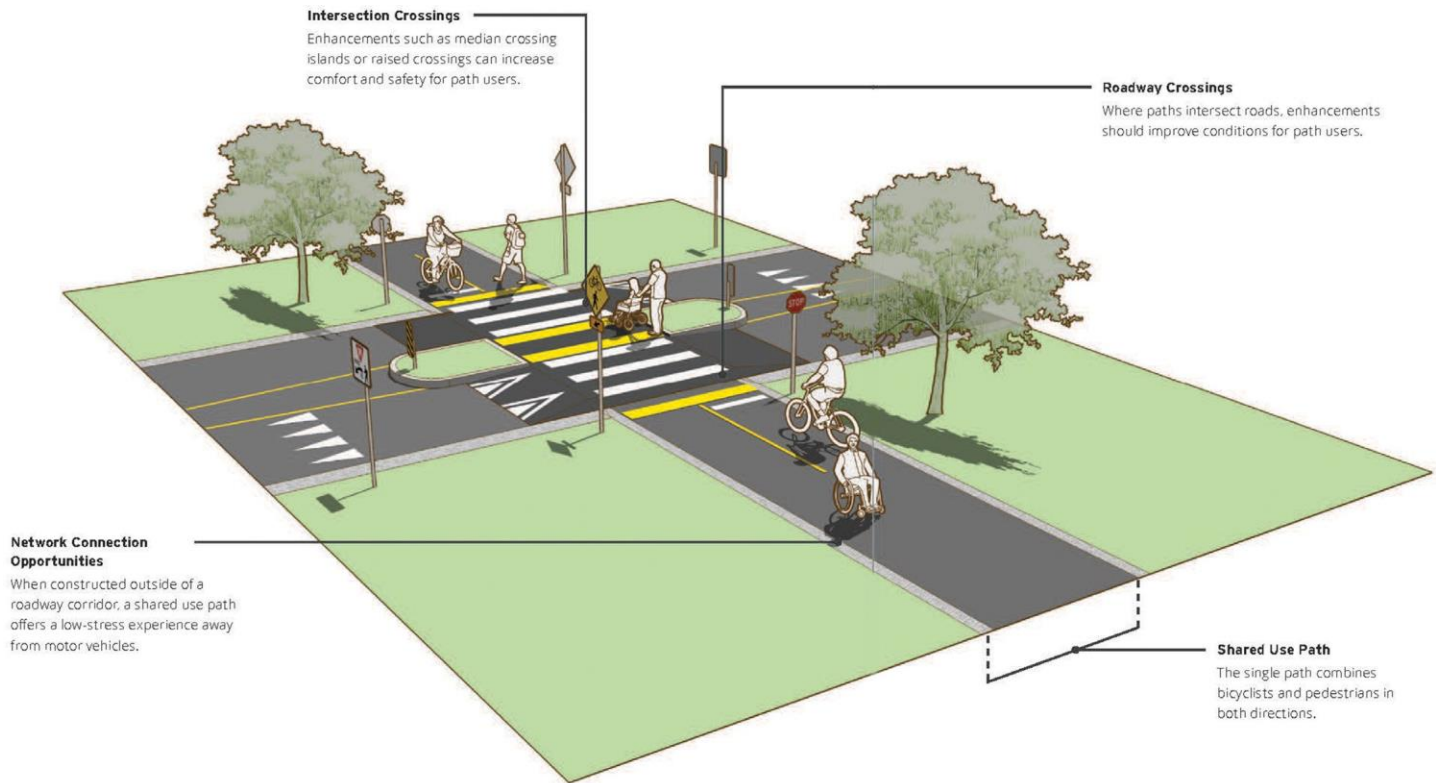
Implementation

Include or upgrade shoulders during roadway resurfacing, rehabilitation, and reconstruction and in new construction projects. For more information on implementation strategies, refer to FHWA Resurfacing Guide 2016.

Accessibility

Bike lanes are designed for the exclusive use of bicyclists and are not intended for use by pedestrians. For information on appropriate pedestrian facilities, refer to the guidance on Sidewalk or Sidepath in this guide.

Physically Separated Facilities



Shared Use Path

A shared use path provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.

Benefits

- Provides a dedicated facility for users of all ages and abilities.
- Provides, in some cases, a short-cut between cities or neighborhoods.
- Provides, in some cases, access to areas that are otherwise served only by limited-access roadways.
- Supports tourism through convenient access to natural areas or as an enjoyable recreational opportunity itself.
- Provides nonmotorized transportation access to natural and recreational areas, which can especially help low-income people obtain access to recreation.
- Paths have a small footprint and can display a distinctly rural character.

Signs

In a mixed user environment, Yield etiquette signs may be used. An example is shown in Figure 4-2. Many communities have created customized signage to reflect local user groups and conditions.

- Bikes Yield to Peds (R9-6) signs may be used at the entrances of path segments to remind bicyclists of the requirement to yield.

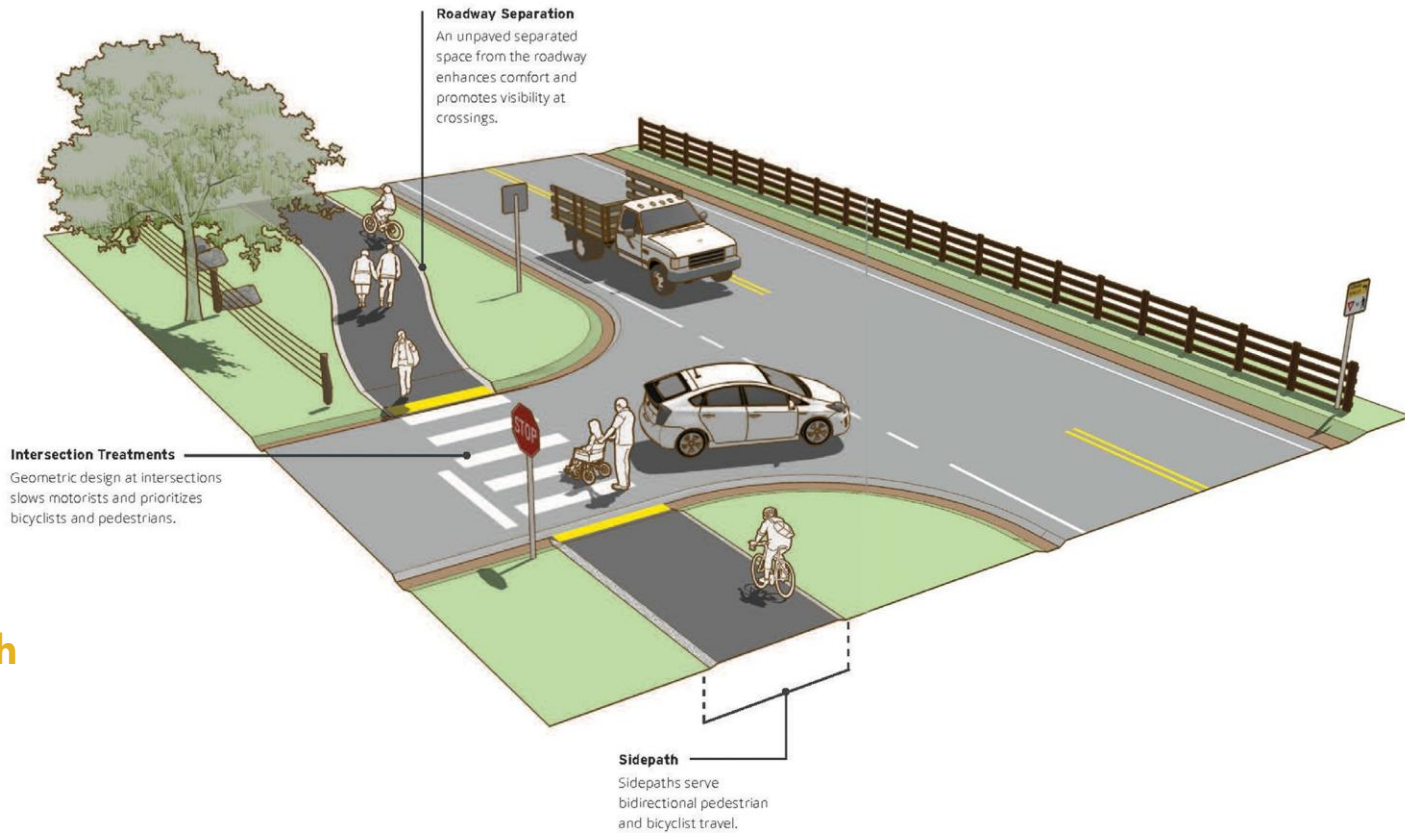
Implementation

Asphalt is the most common surface for shared use paths. The use of concrete for paths has proven to be more durable and significantly reduces maintenance costs over the long term. Saw-cut concrete joints rather than troweled improve the experience for wheeled path users.

Accessibility

A shared use path is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Shared use paths are required to be accessible by all users, including those with mobility devices and vision disabilities.

Physically Separated Facilities



Sidepath

A sidepath is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small town community character.

Benefits

- Completes networks where high-speed roads provide the only corridors available.
- Fills gaps in networks of low-stress local routes such as shared use paths and bicycle boulevards.
- Provides a more appropriate facility for users of all ages and abilities than shoulders or mixed traffic facilities on roads with moderate or high traffic intensity.
- Encourages bicycling and walking in areas where high-volume and high-speed motor vehicle traffic would otherwise discourage it.
- Maintains rural character through reduced paved roadway width compared to a visually separated facility.
- Very supportive of rural character when combined with vegetation to visually and physically separate the sidepath from the roadway.

Signs

Sidepaths may include edgelines or centerlines or be unmarked.

- Edge lines should be marked on paths expecting evening use.
- Paths with a high volume of bidirectional traffic should include a centerline. This can help communicate that users should expect traffic in both directions and encourage users to travel on the right and pass on the left (Flink and Searns 1993).

Signs

- Shared use paths are bidirectional facilities and signs should be posted for path users traveling in both directions.
- It is important for signs that only apply to the path to not be interpreted as a guidance for roadway travel lanes.

Implementation

Asphalt is the most common surface for shared use paths. The use of concrete for paths has proven to be more durable and significantly reduces maintenance costs over the long term. Saw-cut concrete joints rather than troweled improve the experience for wheeled path users.

Accessibility

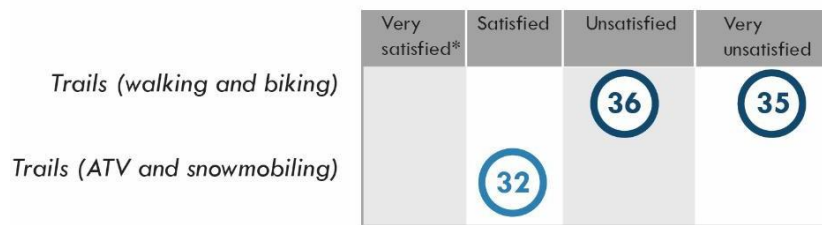
A shared use path is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Shared use paths are required to be accessible by all users, including those with mobility devices and vision disabilities.

Survey Responses

The community survey asked questions regarding the trail networks throughout the City of Emily. As assumed, various feedback on the ATV/OHV network was received, as well as suggestions and desires regarding nonmotorized trail networks.

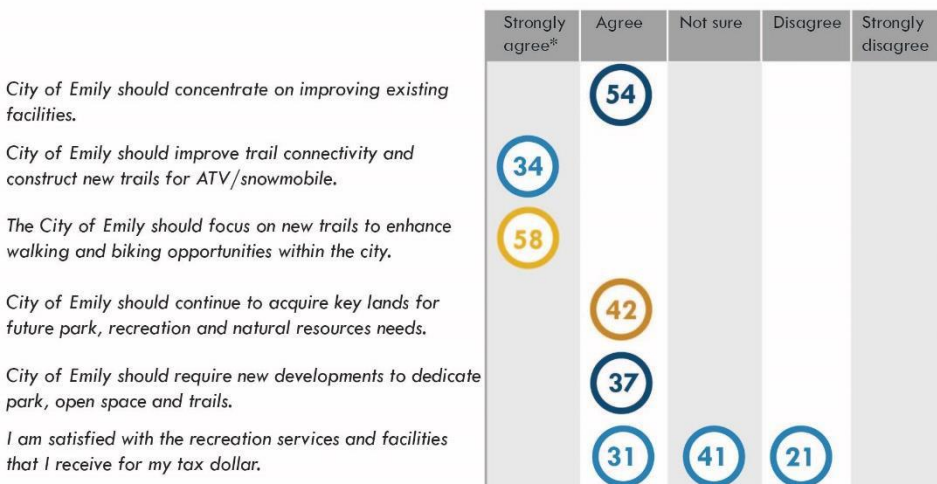
An overwhelming response was received that bike trails would be used for recreation, and a desire for the motorized modes to be prohibited from such a trail. Several respondents indicated the desire for a separated asphalt trail to increase comfort and enjoyment. Support toward connecting Fifty Lakes, Crosby and Outing with a trail network was received, as well as a desire to connect the chain of lakes: Mary, Ruth and Emily.

Q11: Overall, how satisfied are you with the following elements of Emily's park and trail system?



Results from Park, Trail, and Open Space survey, August 2017.
*Percentages taken from question 11 of the survey.

Q17: Please state your opinion as to how you feel about the following statements:



Results from Park, Trail, and Open Space survey, August 2017.
*Percentages taken from question 17 of the survey.

Q19: Please list any park and recreation improvement, enhancement, or additions you would like to see in Emily:

“ Bike trails.

“ Again, an off-road walking/biking trail.”

“ Safe trails away from traffic on State Hwy 6 and County Road 1.”

“ Again, an off-road walking/biking trail.”

“ There are no walking or biking trails in the area. It would be great to have a selection.”

“ Mounting biking/hiking/biking trails.”

“ Paved trails for biking/walking/running.”

Economic Development Benefit of Trails

Researchers have found the economic impact of trails is significant. According to the *National Trail Training Partnership*, “Nationally, trail-related expenditures range from less than \$1 per day to more than \$75 per day, depending on mileage covered. Generally, it’s been found a trail can bring at least one million dollars annually to a community, depending on how well the town embraces the trail.” Trails also affect property values, directly correlating the activeness of an area. In this report, 70 percent of landowners felt that, overall, an adjacent trail was a good neighbor.

At the first steering committee meeting, a citywide assessment was completed by steering committee members to analyze trail network. Their responses are as follows:

Strengths: mass number and volume, proximity to area amenities.

Opportunities: tie everything together and connectivity, bike trails, connection to Cuyuna, connection to Fifty Lakes (biking), tie into Highway 6 reconstruction project with bike lanes and sidewalks.

Weaknesses: not well known, insufficient walking trails, share the road signage.

Threats: number of trails and mileage, over use, local/county control, incompatible uses, hunters, safety.

Table 2-1		
Total spending at Minnesota Trails, by Activity and Region		
Activity	Central Region	State of MN
Walking/Hiking	\$135,040	\$1.2 million
Bicycle Riding	\$51,839	\$427,478
Snowmobile	\$16,669	\$172,816
Running	\$7,635	\$120,745
Cross-country Skiing	\$3,646	\$41,083
In-line skating	\$2,030	\$30,115

Source: *Economic Impact of Recreational Trail Use in Different Regions of Minnesota*, University of Minnesota Tourism Center, 2008

Table 2-2	
Economic Impacts of Spending at Minnesota Trails	
Type of Spending	Central Region
Trail spending	\$257,885
Gross output	\$258,984
Gross Regional Product	\$137,268
Employee Compensation	\$77,155
State & Local Taxes	\$19,121
Total No. Jobs	3,666

Source: *Economic Impact of Recreational Trail Use in Different Regions of Minnesota*, University of Minnesota Tourism Center, 2008

The goals and policies in this section are meant to guide and inform future decision-making and actions regarding the park network. Goals are broad statements that describe a desired outcome and are long-range in scope. Policies describe the general action in which programs and activities are to be conducted to achieve the greater goals. Policies speak to the underlying context and values that are often place-based and specific. Community feedback forms the basis and foundation of the goal and policy work.

Trail Connection Goals

Nonmotorized Trail Recommendations

Short Term

Goal 1: Construct pathways along designated routes to support pedestrian safety and comfort.

Policy:

- Continue to expand the sidewalk network.
- Retain and develop trails within existing parks and open spaces.
- Where possible, separate motorized and nonmotorized trail users.
- Improve wayfinding and access to natural features within Emily.
- Adopt a complete streets policy.

Goal 2: Begin an educational campaign to educate residents on bicycle safety.

Policy:

- Post and market safety tips for bicycles and motorists.
- Clearly post and identify appropriate, designated routes for bicyclists.
- Utilize the abundance of information from state and national groups such as Bicycle Alliance for Minnesota, League of American Bicyclists, Pedestrian and Bicycle Information Center.

Long Term

Goal 3: Create a safe and efficient pathway system throughout the City of Emily that is consistent with the Comprehensive Plan and Park, Trail, and Open Space Plan.

Policy:

- Prioritize the pedestrian.
- Identify intersections and road crossings where crosswalks and markings should be placed.
- Connect people to water, natural, and open spaces areas throughout the city.
- Begin to separate motorized and nonmotorized trail uses. Identify appropriate design solutions for the right user in mind.
- Expand the trail and pathway networks along with community growth.
- Provide adequate space on the road for bicyclists and on-street facilities.

Goal 4: Promote natural surface hiking, cross country skiing and mountain biking on trail networks.

Policy:

- Extend fall, winter, and spring use of trails by plowing designated winter routes.
- Promote Emily's trail and pathway networks for all seasons.

- Support efforts to develop hiking, skiing, and water trails.
- Develop programming to invite people to the trail systems, such as cross-country skiing races.

Goal 5: Work with County officials to expand on-street and off-street path networks.

Policy:

- Collaborate with Crow Wing County and MnDOT on improvements to pedestrian networks.
- Work to improve signage and wayfinding along key corridors in Emily.
- Where possible, seek funding from grants, organizations, and other sources.

Motorized Trail Recommendations

Goal 6: Support and work with local clubs to provide expansion opportunities.

Policy:

- Support ATV and snowmobile clubs in acquiring connections across private land.
- Provide maps and property information in kiosks.
- Educate riders about the rules and regulations.
- Identify incentives to encourage public easements.

Goal 7: Partner with local hospitality and tourism sectors to support the needs of visitors and travelers.

Policy:

- Work with businesses to coordinate business hours during peak tourism seasons.
- Continue to promote events that bring people to Emily.
- Support the promotion of regional destinations and events.

Goal 8: Work with area clubs to provide safe and adequate ATV and snowmobile routes and facilities throughout the city.

Policy:

- Improve signage and wayfinding.
- Help educate riders about rules regarding usage and routes.
- Provide parking facilities in strategic locations that provide for accessible use of the trail.



Chapter 4: Open Space Connections

Open Space Connections

Tax-forfeited lands within the City of Emily already provide many recreational trail opportunities for residents. Trails on county-managed lands include hiking, biking, snowmobiling, cross country skiing, off-highway motorcycles (OHMs), all-terrain vehicles (ATVs), equestrian trails, and other forms of recreation.

At the first steering committee meeting, a citywide assessment was completed by steering committee members to analyze open space network. Their responses are as follows:

Strengths: acreage, snowmobile connections, ATV connections, wildlife, bugs, and nature limit how we over-use/develop.

Opportunities: connectivity, wildlife, signage, education, wildlife viewing.

Weaknesses: map/inventory on existing parcels, signage, interconnectivity, bugs/ticks.

Threats: converging trails and multiple users (ATV and snowmobile), over-use, over-development, hunter season and perceived “safety” on public lands, trapping, multi-uses (hunting, trapping, and walking).

It is important that goals and policies outlined in this document note the importance of open space and natural areas throughout the park and trail sections. Open space and natural areas are vital in maintaining the community’s character and providing for recreational amenities.

Defining open space is a challenge. Open space is a place-based term, varying from community to community. A number of communities in our region have adopted land use policies that encourage the protection of such amenities.

Crow Wing County’s Parks, Trails, and Open Space Plan defines open space: “Open space has some visual, natural resource, or recreational value that distinguishes it from adjacent spaces. Finally, open space can be either public land or private.” The 2004 Crow Wing County Comprehensive Plan makes numerous references to open space, and defines open space on page 34 as including **“undeveloped land with**

“Open space is a general, all-encompassing term to describe the following: green space, wetlands, woodlands, waterways, riparian corridors, wildlife habitat, critical environmental areas, public and private conservation lands (including nature preserves, conservation easements, green corridors, landscape linkages, wildlife corridors and wilderness areas), private working lands of conservation value (including forests, farms and agricultural greenbelts), scenic vistas, and other protected lands that include greenways, utility corridors, trails and parks.”

Crow Wing County Park, Trail and Open Space
Plan p. 73

forests, wetlands, grasslands, agricultural fields, and parks.”

The county plan also notes the value of open space. Residents and visitors alike can actively use open space for activities such as hiking, wildlife watching, and hunting. On the other hand, visitors can use open space passively for the scenery and the serenity it provides. Others value open space and the benefits it will bring to future generations, igniting a passion for preservation. Open space is one component that defines the character of a community, and the economic value of the county and City of Emily.

County Managed Land

The 2004 County Comprehensive Plan describes the public lands in the following manner: Most of this land is located in the northern and central portions of the county, and 75 percent of the public land is tax-forfeited land that is owned and managed by the county. This land is largely undeveloped open space featuring wetlands, grasslands, and forests. Forests on county land, which have traditionally been managed for lumber and pulp production, are valued more and more for wildlife watching, hunting, hiking, cross-country skiing, dirt bike and ATV trail riding, camping, and scenic open space.

State of Minnesota (Emily State Forest Land)

Motorized state legislation enacted in 2003 requires the Commissioner of the Department of Natural Resources (DNR) to move toward a ‘closed unless posted open’ management policy for off-highway vehicles (OHVs) on State Forest lands. The Minnesota Legislature required the DNR to inventory forest access routes, designate routes that will be open to Off Highway Vehicle (OHV) use, and reclassify those state forests that are currently classified as “managed” to “limited” or “closed” with respect to motor vehicle use. State Forest Roads are typically open to use by both highway-licensed vehicles and off-highway vehicles (ATVs, OHMs, and ORVs). However, in forests classified as “closed” only highway licensed vehicles are allowed on forest roads. Nonmotorized users (e.g., hikers, horseback riders, cross-country skiers, snowshoers, mountain bikers) are allowed to use roads, trails, and undesignated routes in the forest, but they are not the primary users and the routes are not mapped, signed, or maintained for such uses.

MN DNR Wildlife Management Areas

Within Crow Wing County the DNR manages Wildlife Management Areas (WMA) with a total of 5,800 acres. Three of these units are cooperatively managed by the county and the state, where the county lands are adjacent to the WMA. **WMAs are used for wildlife management and production. WMAs can be used for timber harvesting and recreation activities such as hiking, hunting, wildlife watching, and cross-country skiing. WMA rules generally prohibit the use of OHVs on roads and trails within wildlife areas.**

A needs assessment was conducted as a part of the County’s 2004 Comprehensive Plan. The planning process identified three distinct qualitative values that are associated with open space. These three qualitative values of open space should be integrated into planning efforts for the City of Emily’s open space network, sensitive environmental areas, and habitats:

Open Space as Natural Infrastructure

Natural infrastructure is a term that refers to the proper functioning of natural systems to manage stormwater, sustain native animal and plant communities, sustain harvests of forest products, and protect soils, groundwater, and other natural amenities. Considering natural systems as infrastructure recognizes both that such systems require periodic maintenance and investment similar to “gray infrastructure” (roads, wastewater systems, energy utilities, etc.), and that natural systems contribute to our quality of life similar to gray infrastructure.

Open Space as a Recreational Asset

Open space can serve a variety of passive or dispersed recreational activities such as hiking, bird and animal photography, orienteering, and berry gathering, as well as hunting and related activities that do not require infrastructure other than open space.

Open Space as Visually Defining Community Character

Great attention was given to maintaining Crow Wing County’s rural or “up north” character in public comments and discussion. Open space visually defines such character even if the viewer is merely passing by on road or trail, or looking out over a vista or landscape.⁵

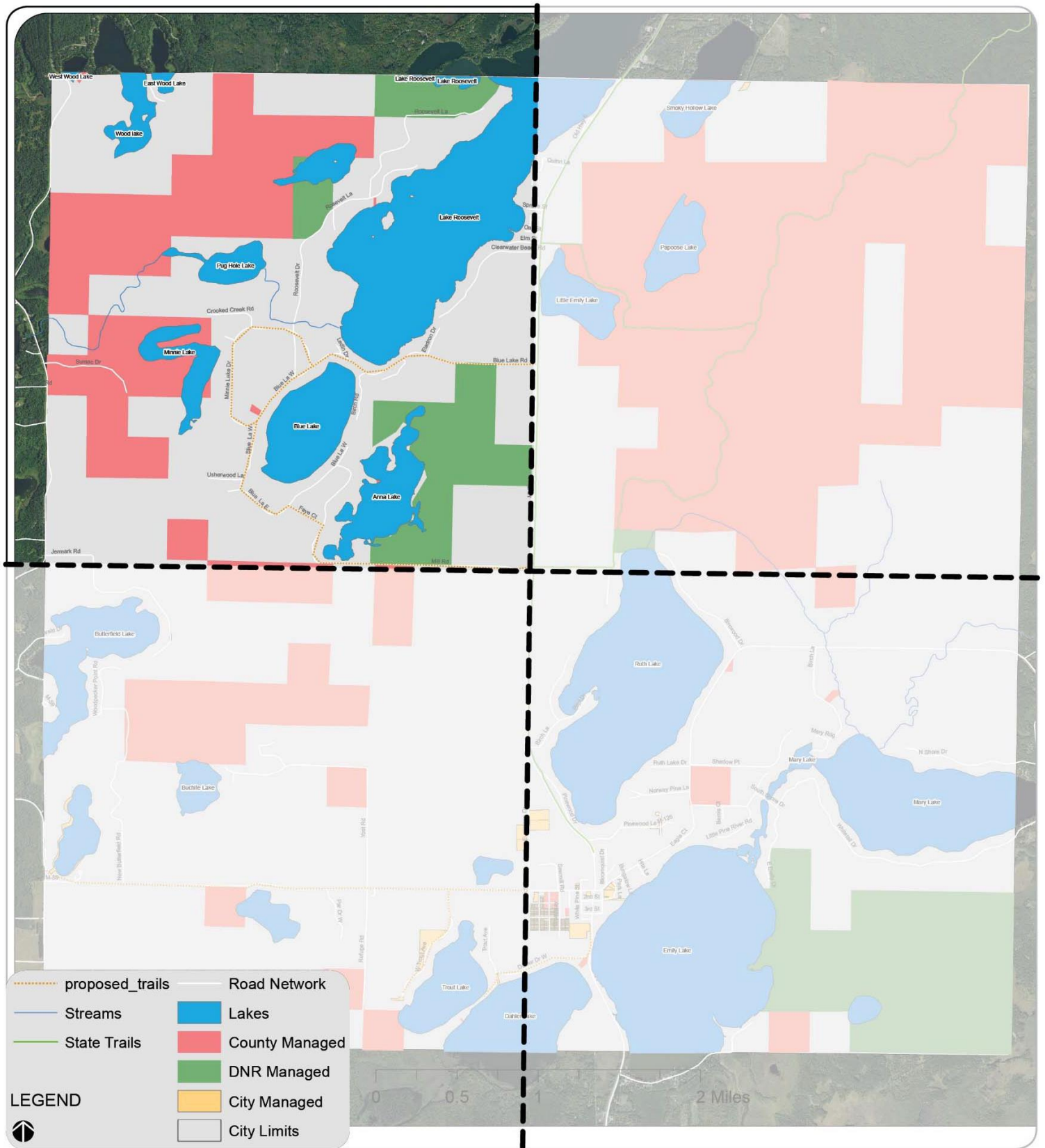
Existing Conditions

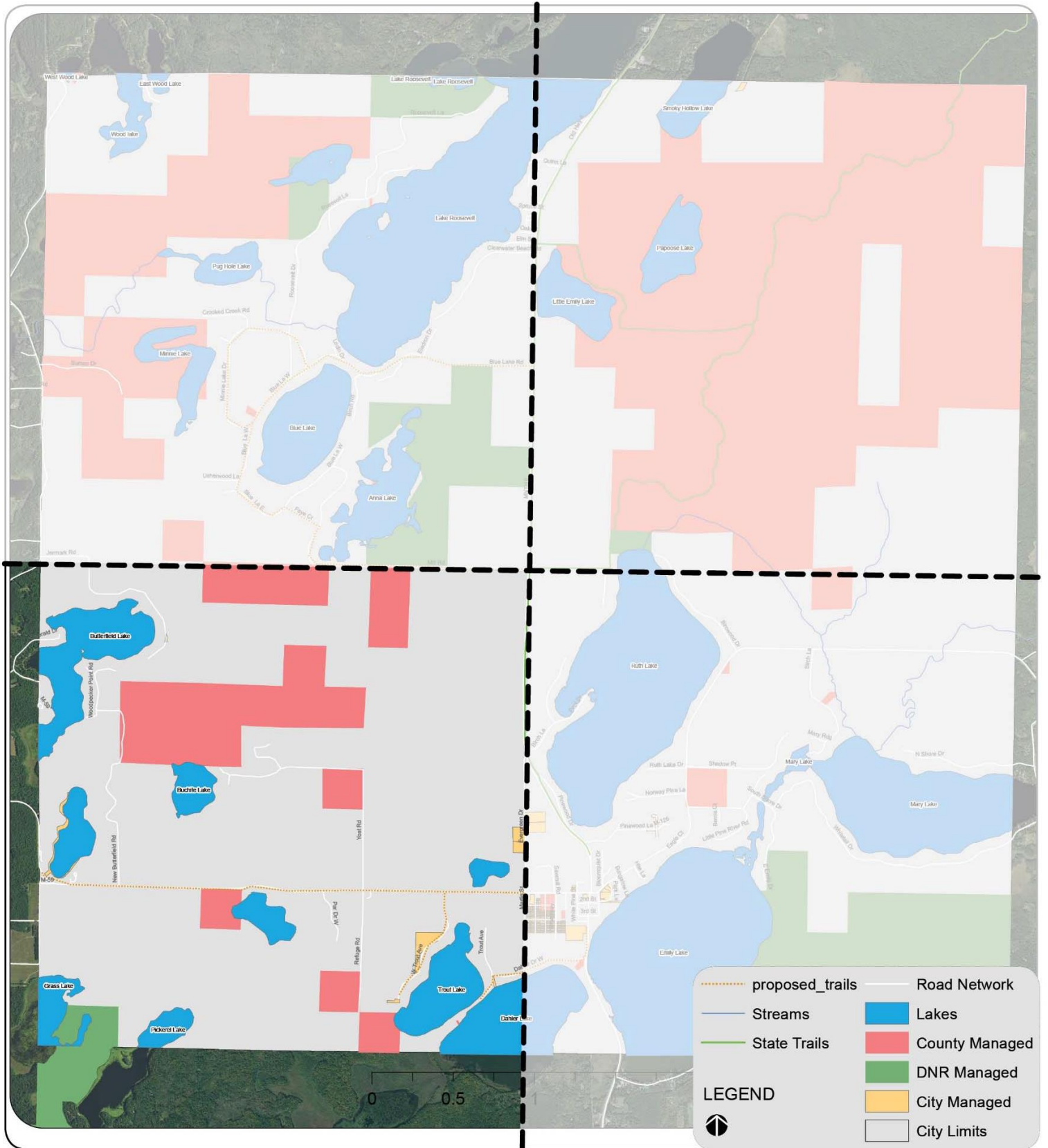
The City of Emily’s total area is a 6-by-6-mile township, equaling 23,040 acres. Within Emily proper is county-managed, tax-forfeited land; DNR-managed land; and city-managed land. The following chart is a breakdown of acreage, illustrating the vastness of public lands available to Emily residents and visitors:

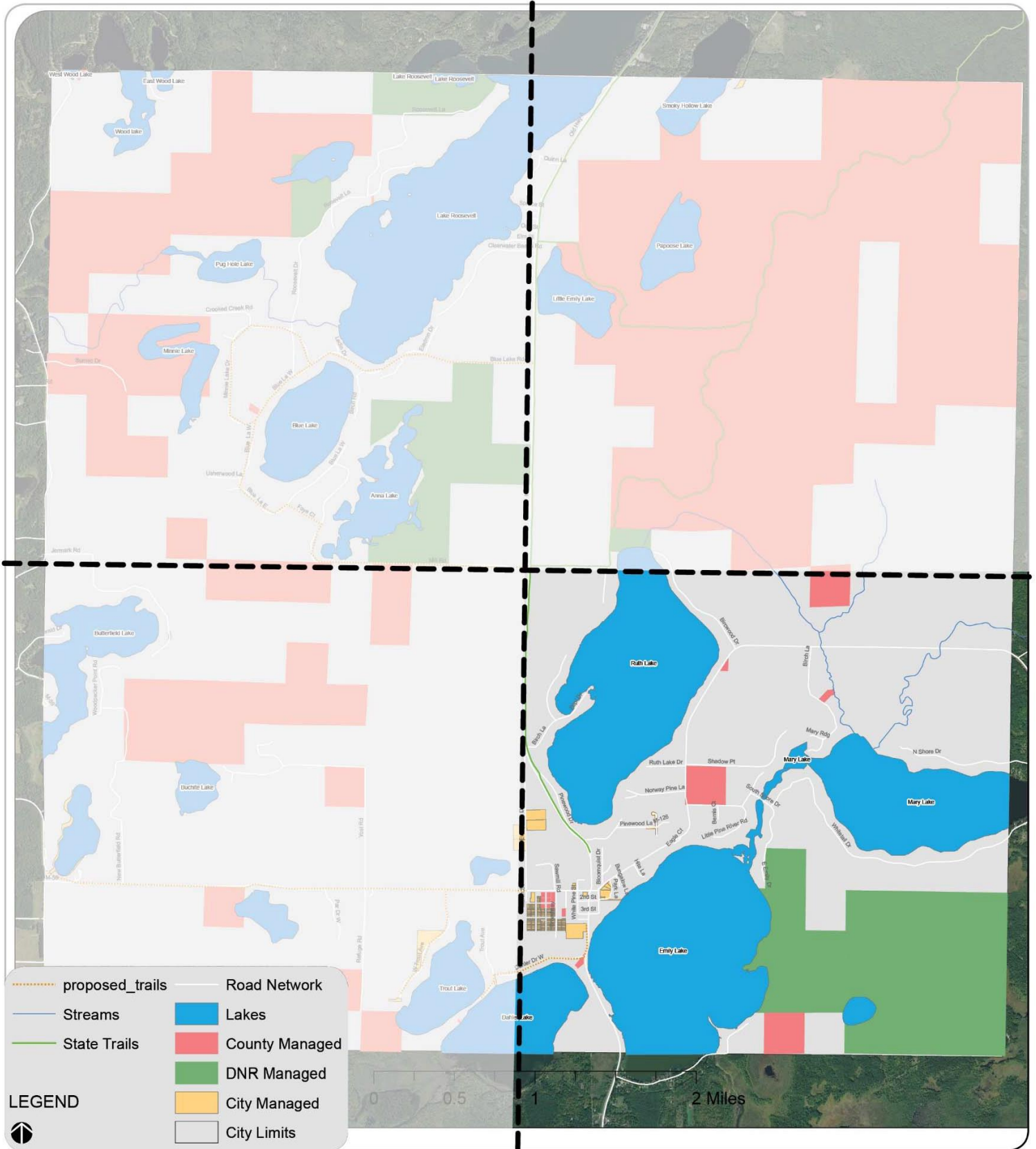
Table 3-1 Public Lands		
Stakeholder	Acreage	Percentage
City of Emily	23,040	
County-Managed, Tax-Forfeited land	5,420	23.5
DNR Managed Land	2,134	9.2
City Managed Land	186	<1.0

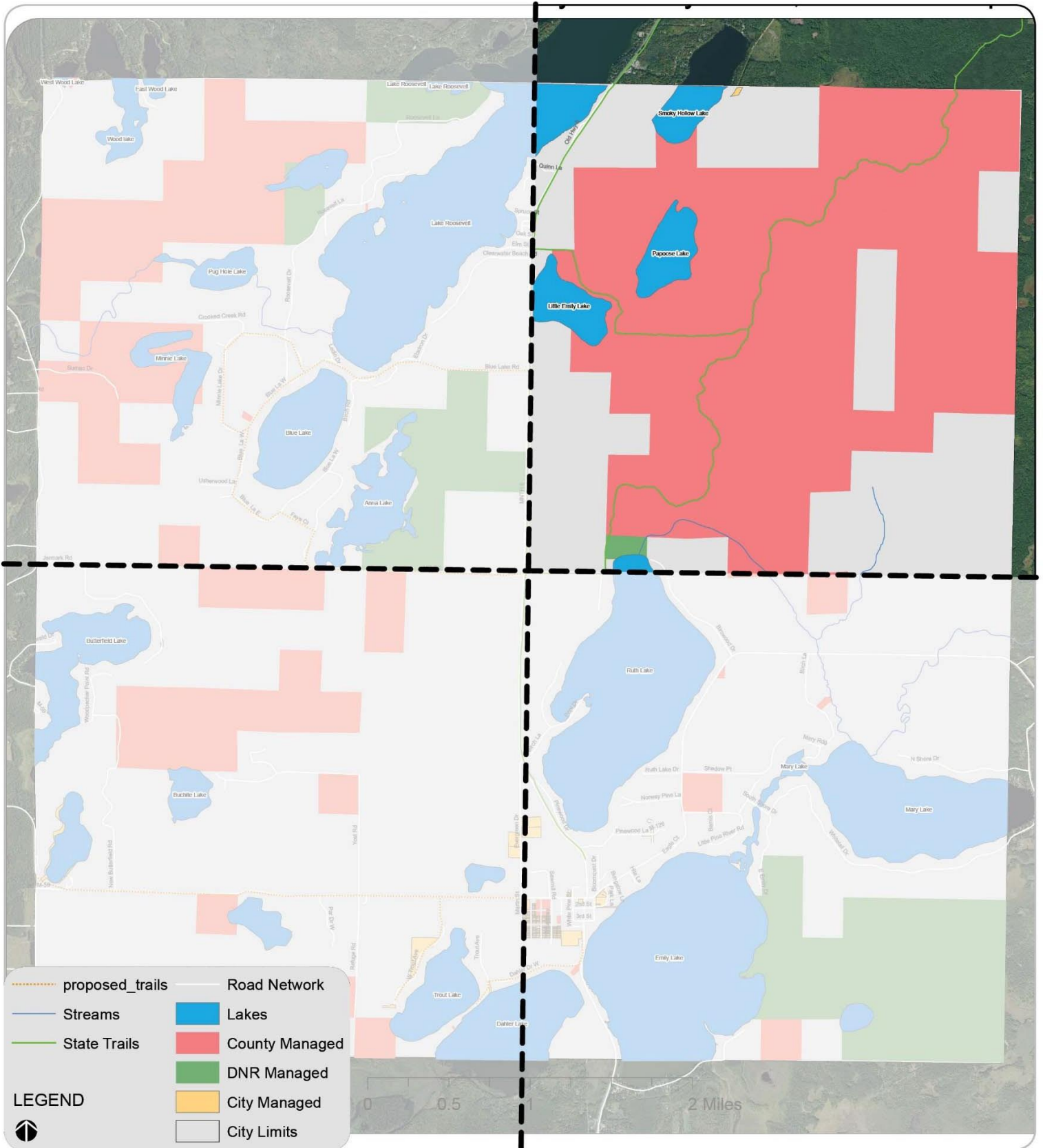
*Public water encompasses nearly 17% of the total area of Emily limits.

⁵ Crow Wing County, Park, Trail and Open Space Plan







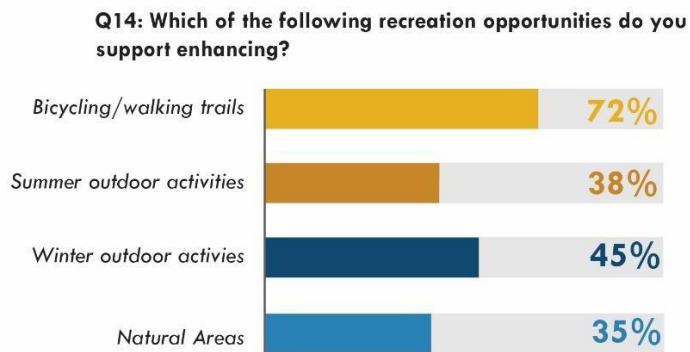


Survey Results

The survey studied the open space plan element, exploring the needs and desires of Emily residents and visitors. Forty-seven percent of survey respondents indicated strongly they see the value in preserving open space. Combined, over 80 percent of survey respondents see the value in preserving open space.

With the abundance of public land for leisure, the survey asked residents to gauge their opinions on accessible and navigable public lands. Forty-seven percent of survey respondents indicated “neutral” when asked if public lands are easily accessible.

The study also explored the wayfinding and signage components of public lands. Forty-five percent of survey respondents indicated “neutral” when asked if public lands are well marked and easy to find and navigate.



Results from Park, Trail, and Open Space survey, August 2017



47% STRONGLY AGREE and **37% AGREE** that they see the value in preserving open space.



34% AGREE and **47% NEUTRAL** that public lands are easily accessible.



45% NEUTRAL and **27% DISAGREE** that public lands are easily accessible.

Results from Park, Trail, and Open Space survey, August 2017.

*Percentages taken from question 11 of the survey.



The goals and policies in this section are meant to guide and inform future decision-making and actions regarding park network. Goals are broad statements that describe a desired outcome and are long-range in scope. Policies describe the general action in which programs and activities are to be conducted to achieve the greater goals. Policies speak to the underlying context and values that are often place-based and specific. Community feedback forms the basis and foundation of the goal and policy work.

Open Space Connection Goals

Short Term

Goal 1: Promote marketing of public lands for recreational use.

Policy:

- Develop marketing materials and utilize city and county websites.
- Increase signage and wayfinding.
- Implement kiosks throughout the city advertising trails and open spaces.

Goal 2: Update and maintain the city's existing lake access points.

Policy:

- Ensure safe and adequate facilities for residents and visitors alike.

Goal 3: Educate all residents on water quality and invasive species throughout the city's park, open space, lakes, and sensitive environmental areas.

Policy:

- Work with the DNR to create educational campaigns.
- Collaborate with the lake associations to support initiatives and planning efforts.

Long Term

Goal 4: Explore opportunities to connect existing open spaces and public lands for the public to utilize both motorized and nonmotorized options.

Policy:

- Identify commonly used open spaces and develop connections throughout the network.
- Utilize right-of-way corridors to connect parks and open spaces.
- Work with property owners to acquire easements to improve connectivity.

Goal 5: Support Crow Wing County's park, trail, and open space planning efforts to maintain or enhance new and existing facilities.

Policy:

- Work with state and county officials to provide adequate open spaces for residents.
- Elected and appointed officials should work with county officials on public land improvements.
- Work with county officials on highway reconstruction projects in an effort to connect the open space network.

Implementation

Park Connections		
Short-term (1-3 years)		
Strategy	Sub-strategy	City Role
Develop detailed park and open space network plan	Develop a proposed nonmotorized Recreation Trail Plan	Lead
Educate residents and tourists on the existing park network		Partnership
Prepare a natural resources inventory and plan		Lead
Create programming within the parks		Support
Ongoing		
Understand the needs of the park and trail users	Conduct a survey every 2 years	Partnership
Program the parks	Support sporting and recreational events that utilize the park network	Support
Acquire parcels adjacent to existing park network and work towards expansion		Lead
Develop priority practices for park maintenance		Lead

Trail Connections		
Short-term (1-3 years)		
Strategy	Sub-strategy	City Role
Define priority trail improvements	Map specific routes	Lead
Develop programming around “Bike Emily” that educates riders on bicycle facilities, routes, and bicycle safety		Lead
Educate residents on Active Living		Partner
Identify and pilot “Complete Street” routes throughout the community		Lead
Identify and market seasonal recreational opportunities	Conduct a survey to understand the needs of trail users, specifically focusing on cross-country skiing, snowshoeing, and hiking	Partner
Ongoing		
Identify a proposed bicycle network	Identify existing and proposed bicycle lanes and routes	Lead
	Identify existing and proposed multi-use trails	
	Identify recreational trails throughout the community	

Map the motorized trail network	Work with the snowmobile club to map private trails	Partner
	Work with the ATV club to map trail routes	
Identify priority improvements to the pedestrian network		Lead
Prepare a wayfinding master plan		Partner

Open Space Connections		
Short-term (1-3 years)		
Strategy	Sub-strategy	City Role
Develop wayfinding and signage to these destinations throughout the community	Develop a wayfinding master plan	Partner
Promote natural-surface hiking, cross-country skiing		Partner
Identify corridors to connect public lands and open spaces		Lead
Ongoing		
Conduct a natural resources inventory		Lead
Invest in parking and camping facilities in an effort to connect people to nature		Lead
Identify greenways		Lead
Consider land exchanges to improve access		Lead
Identify parcels adjacent to lakes to connect people to water	Invest in existing unimproved beach sites	Lead
Collaborate with Crow Wing County on expansion and maintenance of existing of public lands		Partner

Funding sources

Substantial investment is made by cities to acquire parkland, develop park amenities, and build facilities. After the substantial investment, ongoing revenue streams are required to maintain the parks, trails, and open space, and to provide for future replacement.

Funding streams are classified as sustainable, or a consistent, long-term source of funds; or intermittent, where funding sources are difficult to schedule and may require matching dollars, but are typically one-time revenues.

Park Dedication

Park dedication via the development or subdivision process is an important tool. A park dedication ordinance would set the parameters for receiving land, collecting cash payment in lieu of land, and using these resources. Funds received from payments in lieu of dedication should be used to acquire park sites, trail corridor and greenway components.

General Tax Levy

General fund is classically used to maintain the parks and recreation system. The general fund is the primary funding source for ongoing maintenance, natural resource management, operations, and slight amenity additions. Most grants also have a matching requirement that is often times matched with general funds.

General Tax Levy

Bonding provides a large, one-time infusion of capital for acquisition, replacement, repair, expansion, or new construction. Bonding allows for current and future residents to pay for park improvements over time, which typically corresponds to useful life of the asset improvements.

Other common funding sources:

- Local sales tax option
- Franchise fees
- Liquor store revenue

Intermittent funding sources are often irregular or periodic in occurrence. The following is a list of practical and typical funding streams:

- State aid funds
- Park and trail dedication
- School districts
- Partnerships
- Donations

Grants are a strategic way to make city dollars stretch farther. The following is a list of possible granting agencies:

- **Minnesota Department of Natural Resources (DNR):** The DNR is the most comprehensive resource for securing funding for park and trail programs from the state. The DNR offers a variety of grant programs as well as technical assistance.
- **Minnesota Department of Transportation (MnDOT):** Trail and bikeway improvement projects can be funded through this source.
- **Clean Water, Land, and Legacy Amendment:** In 2008, Minnesota voters approved the Clean Water, Land and Legacy Amendment to the Minnesota State Constitution, which increased the general sales and use tax rate by three-eighths of 1 percent (0.375%) and dedicated the proceeds for the Arts and Cultural Heritage Fund, the Outdoor Heritage Fund, Clean Water Fund, and Parks and Trails Fund.
- **Foundations and nonprofits**

