



Langlade County Bicycle and Pedestrian Plan 2019

Prepared by: North Central Wisconsin Regional Planning Commission



Langlade County Bicycle & Pedestrian Plan Acknowledgements

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Chapter 1: Introduction

Biking and walking are both important modes of transportation, whether used separately or in concert with other modes of transportation. In townships and rural communities, active transportation can be even more common than it is in urban areas.¹

The focus of this plan is to enhance the viability of bicycling and walking as a form of transportation throughout communities in Langlade County. This plan focuses on guidelines for planning bicycle facilities, with general design and funding information included. This plan also examines existing conditions for biking and walking countywide and suggests routes and segments on which to prioritize bicycling and walking improvements.

Project Purpose

Langlade County received Transportation Alternatives Program (TAP) funding from WisDOT to develop a plan to improve bicycle and pedestrian facilities throughout the County. The North Central Wisconsin Regional Planning Commission (NCWRPC) wrote and facilitated that plan throughout 2018 with oversight provided by the Langlade County Forestry & Recreation Committee, and an advisory group comprised of Langlade County officials, residents, and stakeholders who bicycle and/or walk in the County.

The Langlade County Bicycle and Pedestrian Plan is one of the first implementations of the North Central Wisconsin Regional Bicycle & Pedestrian Plan (RBPP) of 2018, written and adopted by NCWRPC. This plan, unlike the Regional Plan, analyzes bicycle and pedestrian transportation in Langlade County at a granular level, and recommends policies, programs, and facility treatments to improve the safety, convenience, and attractiveness of bicycling and walking for Langlade County residents and visitors alike.

Since 1991, the federal government has recognized the role of walking and biking and their importance as part of a balanced transportation system, specifically as mentioned in the Intermodal Surface Transportation Efficiency Act (ISTEA).

The United States Department of Transportation (US DOT) and the U.S. National Safety Council also aim to end traffic fatalities within 30 years, and the Wisconsin Department of Transportation (WisDOT) has launched the Zero in Wisconsin campaign to prevent traffic deaths.

¹ Federal Highway Administration. 2016 *Small Town and Rural Multimodal Networks*.

Bicycling & Walking as Transportation

Bicycling and walking are two of the most efficient ways to get around. Walking is ubiquitous; nearly everyone depends on walking for at least part of every trip, if only from the parking lot to the nearest building. Although some lament that “people just can’t seem to walk anywhere anymore,” the reality is that, given the opportunity, many people choose to walk from one place to another, particularly if they can do so safely and conveniently. During the past fifty years, however, there is no question that Americans have become increasingly auto-dependent. This is partially by choice and partly as the result of a development pattern where individual land uses (e.g. retail, fast food, and schools) exist on the periphery of communities. Not only are edge of town land uses a long walk from where people live, but they may be a half-mile or more from the nearest sidewalk. Conditions such as these not only discourage able-bodied pedestrians, they literally prevent access for pedestrians with special needs, a group that includes elderly, children and people with disabilities.

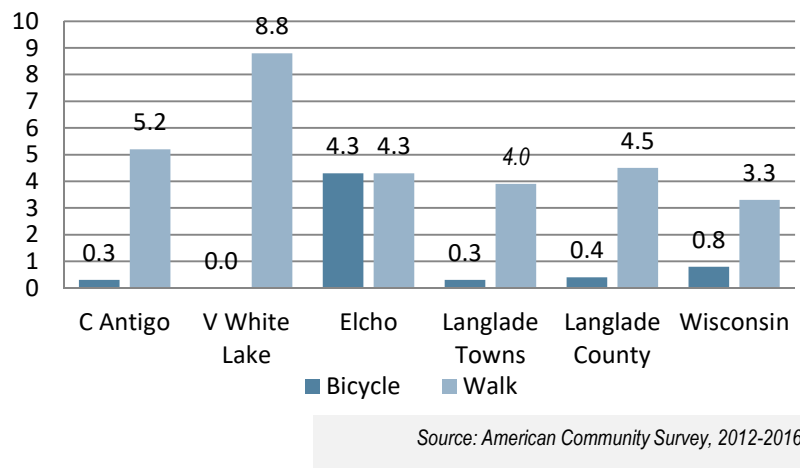
Bicycling & Walking in Langlade County

In many parts of the world, walking and bicycling are major modes of travel and relied on for utilitarian purposes. Even in many western countries walking and bicycling constitute a major portion of all transportation trips and connections between these modes and transit are well developed. In the U.S. and Wisconsin, however, the opposite is true because cities have evolved around the automobile, making destinations and land uses so spread out that only driving can overcome such distances for many trip purposes.

In Wisconsin, a relatively small percentage of people walk or bike to work or for work-related purposes. This is primarily because so few people live within walking or bicycling distance of where they work. When other trip purposes are considered, walking and bicycling face the same challenges. Often trips to the store, school, or even a person’s favorite restaurant are just too far for there to be much potential for bicycling or walking. Or if they are close-by, they are not served well with bikeways and/or sidewalks.

Nationally, urban areas have some of the highest rates of bicycling and walking to work. According to the U.S. Bureau of Census’ American Community Survey for the five year average from 2007 to 2011, the national average all residents that commute to work by bicycle in urban areas is 3.3 percent. In Antigo, this percentage is considerably lower at 0.3 percent ([Figure 1](#)). On a countywide basis, this percentage is only slightly better at 0.4 percent, and Wisconsin overall is 0.8 percent. However, the level of residents that commute to work via walking in Langlade County is higher than that of the State as a whole, with 3.3 percent of Wisconsin residents walking to work during this time frame, compared to 4.5 percent in Langlade County and 5.2 percent in Antigo.

Figure 1: Langlade County Mode Share, 2016



Defining Who Rides Bicycles

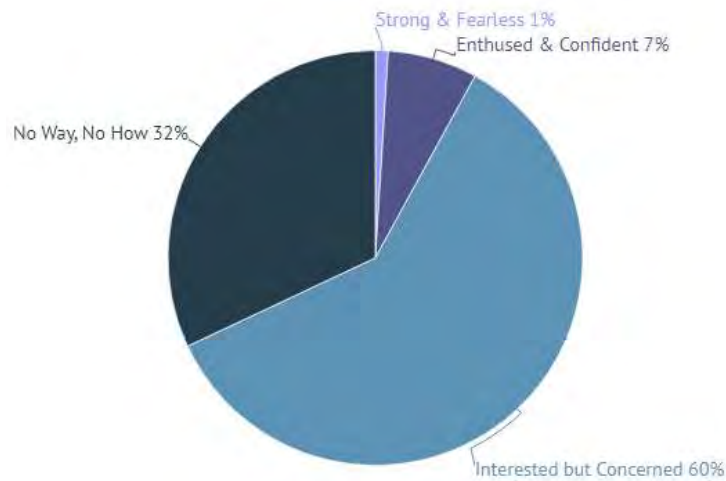
Not everyone who walks or bikes has the same ability or confidence riding. Age, experience, and bicycling ability dictate where and when individuals (or parents, in the case of children) feel comfortable to safely bicycle on roads.

Types of Cyclists

The American population can be divided into four classes of bicyclists (see [Figure 2](#)):

- 1 percent describe themselves as “fearless”.
 - These riders are confident in their abilities and will ride regardless of roadway condition, amount of traffic, or inclement weather.
- 6 percent call themselves “enthusiastic and confident”.
 - Riders are comfortable sharing the road with motor vehicles, but they prefer to ride on separate facilities like bike lanes. May or may not ride in inclement weather.
- 60 percent are “interested but concerned” about their vulnerability.
 - Very few of these people regularly ride a bicycle, but they like riding. They are concerned that their route is not safe to ride, so they don’t ride very often, and definitely do not ride when the weather is bad.
- 33 percent say “no way, no-how” to biking.
 - They are not interested in bicycling at all, not even for recreation.

Figure 2: Types of Cyclists



Source: Portland Office of Transportation

Age Differences

In general, young bicyclists are found in places where a park is within a mile from their home, and where development is clustered, like in a city's downtown. Some kids learn the basics of balance and control with their first bicycle by the age of four. By the time they turn 10 years old many children are allowed to ride to school if the route is safe, or to the store, or to visit friends. By the time kids reach their junior high years (7-9th grades), they often have good traffic safety skills. Bicycles are their primary means of independent mobility beyond walking.

Many high school students stop riding their bikes as infatuation with the car takes hold. But after high school, some people come back to bicycling, especially if they attend college. Beyond school, many people limit their bicycling to family outings, recreational trail riding, and within a few miles of their homes for low-impact exercise.

Some adults bicycle to work. The latest trend is that young adults are choosing where to live based upon how walkable or bike able their commute is. Other adults may use bicycles for touring long distances. Bicycle clubs which tend to cater to people in the 25 to 50 age group often sponsor rides through rural areas.

By retirement age, many people who have not ridden for years take up bicycling again as a way to keep fit. For some older adults, the bicycle or adult tricycle may be their only means of independent travel. In many cases, these bicyclists will ride close to home or on local trails.

The challenge to increasing bicycling among the general population is making biking appeal to the big “interested but concerned” contingent.

By building a bicycle network that addresses the needs for the “interested but concerned” group, the more confident bike riders will also be served.

Types of Pedestrians

Everyone is a pedestrian at some point in their trip, whether it is from home to care, or walking to the bus stop. *There are essentially two groups of pedestrians: 1) general pedestrians who walk, and 2) pedestrians with limitation that make walking difficult or impossible.* The general pedestrian is anyone who can walk along and across streets without being limited by physical, sensory, or cognitive impairments. Other pedestrians, such as the elderly, children, people with physical or mental disabilities, and the blind may have limitations that make walking more challenging.

Since there are people with different abilities, then understanding how they need to interact with pedestrian facilities is the first step for policy makers in creating accessible facilities. The needs of disabled people and other pedestrians should determine what kinds of accessible design everyone can use. WisDOT's Pedestrian Policy Plan 2020 was used in this section to identify the types of pedestrians and their limitations for navigating the built environment.

Children

Facilities designed to separate and protect children will be welcomed by everyone else. General limitations of children include:

- One-third less peripheral vision than adults, making it difficult to see turning vehicles or those down the road;
- Less cognitive ability and experience to judge speed and distance, making safe crossings more difficult;
- Lower auditory development makes it difficult to localize the direction of vehicle sounds;
- Overconfidence in their judgements may result in poor decisions on crossing timing;
- Inability to read or comprehend warning signs, traffic signals, and directional aids;
- Inexperience dealing with complex traffic situations results in poor decisions; and
- No sense of fear.

Nearly one-fourth of Wisconsinites are younger than 15 years of age. Children do not develop adequate sign, thinking, and hearing abilities necessary to cross streets safely until age 10 or later. – WisDOT, Ped. Policy Plan

Mobility Impairments

People with mobility impairments include those who use wheelchairs, crutches, canes, walkers, orthotics, and prosthetic limbs.

Characteristics common to mobility impaired individuals include:

- Space requirements to accommodate their assistive device (for example, manual wheelchairs have an average turning radius of 5 feet and require a minimum width of 3 feet of sidewalk); and
- Difficulty negotiating soft surfaces (e.g. grass, sand, or loose gravel).

Sensory Impairments

Sensory impairments include problems with depth perception, deafness, tunnel vision, blindness, or color blindness. Assistive technologies may include hearing aids, corrective lenses, white canes, or guide dogs. For visually impaired users, intersections are easiest to navigate when the line of travel from the edge of the sidewalk to the opposite curb is straight and unimpeded by obstacles rather than skewed as at some irregularly shaped intersections. Designing curb ramps to face the line of travel across a road, as shown in [Figure 3](#), will greatly assist visually impaired users. Driveways pose a challenge because the hearing impaired pedestrian is unable to hear the vehicle especially when shrubs or fences block sound and view.

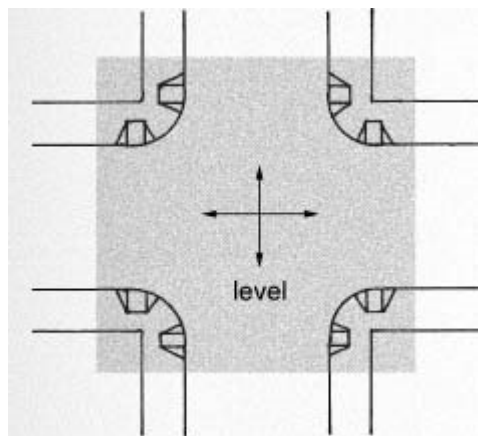
For visually impaired users, intersections are easiest to negotiate when the line of travel from the edge of the sidewalk to the opposite curb is straight and unimpeded by obstacles. –WisDOT, Ped. Policy Plan

Cognitive Impairments

People with cognitive impairments have difficulty perceiving, recognizing, understanding, interpreting, and responding to information. Cognitive disabilities can hinder a person’s ability to think, learn, and reason. Facility designers might consider that such a reduced capacity for sensory processing and problem solving may cause such people to experience more difficulties negotiation unfamiliar environments.

Figure 3: Curb ramp placement at intersection

The preferred design is to have a separate curb ramp aligned with each crossing direction to allow all pedestrians to cross at the same location. At most intersections, a pair of perpendicular curb ramps placed at 90 degree angles to one another is the optimal design for meeting these criteria.



The shaded area represents the portion of the intersection that should be level for pedestrian travel.

Source: FHWA, Designing Sidewalks and Trails for Access.

Overall, level sidewalks and well-designed ramps and crossings complement people with disabilities.
–WisDOT, Ped. Policy Plan

The Benefits of Walking and Bicycling

The potential benefits of biking are significant and help to justify expenditures required to develop a comprehensive, safe, and attractive bicycle network throughout Langlade County. The public recognizes the benefits of biking beyond its recreational values on a national, State, regional, and local level. These benefits include the following factors:

- **Transportation:** General transportation benefits of bicycling include a wider range of transportation choices, reduced congestion, decreased need for parking, and the implementation of safety improvements that benefit all roadway users. Biking is among the most efficient modes of transportation in regards to operation, development of facilities, and maintenance.
- **Health and Fitness:** Bicycling is among the best forms of exercise and can therefore effectively enhance the health of individuals and the communities.
- **Recreation:** Paths developed for bicycling provide recreation opportunities.
- **Economic:** Bicycling translates into tourism. WisDOT has targeted bike touring and trail riding as high potential tourism activities since the 1980s, and has recently added mountain biking to that list. The State annually distributes over 50,000 Wisconsin bike maps. Several studies of State trail-related expenditures have been conducted showing expenditures ranging from \$33 to \$49 per person per day.
- **Social:** Bicycling stimulates the social interaction of families and community. Trails can help provide a sense of place and a source of community pride.
- **Quality of Life:** The extent of bicycling in a community has been described as a gauge of how well it is advancing its citizens' quality of life. Streets that are busy with bicyclists are considered environments that work at a more human scale and foster a heightened sense of place. These benefits are difficult to quantify, but when asked to identify sites that they are most proud of, residents often name spots where bicycling is common, such as a popular bikeway or riverfront project.
- **Environmental:** Biking consumes no fossil fuels and does not contribute to noise or air pollution. Further, careful development of off-road facilities can protect and enhance natural resources.

Significant overlap exists between these benefits. One benefit can often build upon another. For example, quality of life is an increasingly important factor in attracting and retaining businesses in a community, and trails are important contributors to quality of life. By enhancing the County's quality of life through the development of multimodal corridors, economic benefits may also be achieved. Another example of potential economic gain for a community would result from the health and fitness benefits of trails. The health improvement due to increased outdoor exercise can help control medical costs over the long term.

Implementing this plan can bolster all of these benefits across Langlade County, and increase the number of miles of trail and routing throughout the County's municipalities.

Planning Process and Community Input

5-E Approach

Encouragement, Education, Enforcement, Engineering, and Evaluation are the "E's" that combine to provide a well-rounded and complete bicycle and pedestrian network and Plan. Each of the E's are briefly described below.

- **Encouragement**-Efforts should be made to encourage people to choose to travel by bike and to utilize the bike routes. The initial recommendation for encouragement includes development and distribution of a promotional brochure/route map. In the future, additional alternatives should be investigated and implemented as needed, including: activities center around National Bike Month, organized bicycle ride events, working with the news media, and alternative publicity.
- **Education**-A bicycle education program is developed to inform cyclists, motorists and the general public about safe cycling practices and sharing the road. Research and education on the various issues related to developing bike routes is important for public awareness and knowledge of planning elements and design considerations.
- **Enforcement**-Enforcement related activities are good ways to inform and educate the public about the importance of bicycling safety to a community. Enforcement works as education when enforcement agencies work with local media to alert the public of the dangers of certain behaviors of motorists and bicyclists and the importance of stopping infractions that most commonly lead to accidents. Enforcement options include:
 - Officer Training
 - Selective Enforcement (preceded by community relations)
 - Model Traffic Ordinance
 - Involving Local Law Enforcement in Educational Safety Programs
- **Engineering**-The selection of routes involves engineering considerations. Pathway routes included in the route plan must meet certain design criteria. The engineering of maintaining and improving routes in the plan is covered in the implementation sections of this report.

- **Evaluation**-Includes monitoring the outcomes and documenting the results of the implementation of the other E's. Data collection before and after infrastructure improvements are implemented, such as user surveys and bicycle and pedestrian counts, are critical to measuring the overall effectiveness of the network.

Public Participation

The Langlade County Forestry & Recreation Committee provided oversight and guidance to NCWRPC throughout the planning process, through four meetings and correspondence throughout 2018. NCWRPC staff also consulted with the County's Highway Committee and Commissioner on recommendations and pertinent issues pertaining to county highways. NCWRPC solicited comments and input regarding the plan from the public in the summer, spring and winter of 2018 through a survey and mapping exercise. This plan was also guided by the input of an Advisory Group of Langlade County officials; bicycle club members, community leaders and residents interested in biking and walking and were instrumental in the ultimate assembly of proposed routes for this plan.

Survey Results

A public survey was included in tandem with a Wikimapping exercise to gauge attitudes and experiences toward biking and walking amongst Langlade County Residents. 141 residents responded to the survey throughout the public engagement period, lasting from May through July.

The first set of questions gauged respondents' relationships with bicycling; they were asked what type of bicyclist they considered themselves to be. Majority of the individuals who responded to the survey identified themselves as enthusiastic and confident, or interested, but concerned. Most bicyclists are encouraged to ride for health and exercise or fun and recreation.

The next set of questions asked respondents how biking could be improved in Langlade County. When asked what infrastructure would improve biking in Langlade County, the top three answers included off-street trails, bike lanes on busy streets, and paved shoulders on rural roads.

There was a general consensus between bikers and pedestrians that they would like more programs or information regarding motorists sharing the road. They believe this would allow them to bike and walk more often. Pedestrians also believe that off-street paths and sidewalks on busy rural roads/highways would improve walking in Langlade County.

Appendix I of this plan displays the full compendium of survey results from the planning process.

Wikimapping Results

Members of the public throughout Langlade County were invited to contribute and plot bicycle and pedestrian routes and potential issues onto the open source tool *Wikimapping*, a tool for planners to easily gauge public opinion on an online, mapping format. *Wikimapping* helped inform this plan as to where and what type of improvements ought to be made regarding bicycle and pedestrian infrastructure.

Participants had two possible ways to contribute to the interactive exercise.

1. **Add a Route:** Participants had the option to draw five different kinds of routes relating to routes users enjoy, routes users think need improvement, or routes users want to see developed in the future. These routes are illustrated in Map 1
2. **Add a Point:** Participants were encouraged to plot points on the exercise indicating conflict areas, places where bicycle parking is needed, and destinations to which users can walk or take their bicycles.

Common “I want a path here” destinations include; Kempster Lake, Jack Lake, White Lake, Outer Lakes, Moose-Mueller, Riverview, Ice Age Trail and various shopping centers. Participants were also able to add a route that needs improvement. Common bike route improvements include, Hwy 55 North towards Lily, along the Railroad and Wolf River, and Hwy 64 heading west towards Merrill.

There were four conflict points which included three intersections located in the City of Antigo: the intersection of Clermont & Hwy 64/Century Ave, the intersection of 3rd & Hwy 45, the intersection of 10th & Hwy 45 and at Elcho Public School. Bike parking needed points were also placed in the City.

Participants were also asked to complete the aforementioned 10-minute, text-based bicycling and walking survey at the end of the mapping exercise. The survey asked 26 questions about cycling and pedestrian preferences, as previously illustrated.

Advisory Group Workshops & Public Meetings

Two workshops were held in Antigo to engage with Langlade County officials, stakeholders and interested residents and discuss issues and opportunities for bicycling and walking, as well as two separate public open houses. These events were held throughout the summer of 2018. Participants in these workshops and open houses included citizen advocates, Langlade County staff; representatives trail building and advocacy organizations, bicycle club members, county health departments, and many others.

The first workshop, held in June of 2018, included a tabletop mapping component, where participants gathered around a poster sized map of the area to discuss and mark specific opportunities or issues. These markups were then considered with the Wikimapping tool to consolidate the mapping input onto one map.

The second workshop was held in August and focused on reviewing and adjusting the goals and objectives of this plan, as well as planned on- and off-road routes.

Public open houses were held after each workshop, and each in the same location.

A summary of the input at each workshop and open house is provided below:

[Advisory Group Workshop & Public Open House #1 \(June 5th, 2018: Antigo, WI\)](#)

NCWRPC hosted the first workshop and public open house at the Peaceful Valley Park’s Heinzen Pavilion in the City of Antigo. About 23 people attended the advisory group workshop – members of the advisory group included Langlade County and City of Antigo staff and officials, various bicycle and

silent sports club members (LAMBA, Antigo Bike & Ski Club, Elcho Cross Country Ski Club, Ice Age Trail Alliance), economic development representatives, and other interested citizens of Langlade County.

The advisory group identified areas of conflict and opportunities in both bicycling and walking on two different table-top exercises.

A public open house was held immediately afterwards, where residents of Langlade County gave their comments, all of which are included in the appendix of this plan.

Issues

- *U.S. Highways – particularly USH 45 – are difficult to cross and present significant conflict areas throughout Antigo and Elcho*
- *Surfacing along the Wolf River State Trail is inhospitable to biking in its current state*
- *Few bike parking opportunities in Antigo*
- *Private parcels can complicate development of future off-road routes, which are the general preference of the advisory group.*
- *CTH K and Enterprise Road outside of Elcho are very frequently travelled routes by individuals and families with children – however, heavy traffic currently creates an unsafe condition for bicycling in general.*
- *Sidewalks in Elcho are in need of rehabilitation*
- *From a tourism perspective, out-of-state visitors vastly prefer off-road bike routes to on-road bike routes*
- *Advisory Group disagrees with some highway conditions categorized as “best condition” for bicycling by WisDOT*

Opportunities

- *Abandoned Rail line between Elcho and Antigo could provide crucial bicycle/pedestrian connection between the two municipalities.*
- *County Forest Fire Lanes can provide many crucial connections in eastern Langlade County*
- *Public lands in general are especially abundant in Langlade County, providing more achievable opportunities for continuous walking or pedestrian paths*
- *Connections outside of Langlade County, including Rhinelander, Mountain, Dells of the Eau Claire State Park in Marathon County, etc.*
- *Jack Lake Campground and Camp Lyle provide for convenient nodes to connect on- and off-road pathways*
- *Key connections and opportunities exist just outside Langlade County lines, such as a potential pass in neighboring Shawano County, and key destinations such as the Dells of the Eau Claire County Park, the City of Rhinelander, and Mountain.*
- *Scenic vistas on local roads provide some good and achievable opportunities for signed, on-road bike routes.*

[Advisory Group Workshop #2 August 20th, 2018: Antigo, WI](#)

NCWRPC hosted a second round of Advisory Group Workshops and Public Open Houses to review a first round of draft routes for County at the Antigo Public Library. The group generally approved of the

routes as constructed – however, they also made clear that some portions on county highways that are rated as “best condition” by WisDOT would absolutely need paved shoulders in order to functionally increase their bikeability. The group expressed approval and great interest in pursuing the off-road proposed path that follows the railroad grade between Elcho and Antigo.

Public comments generally concurred with the input of the Advisory Group, but emphasized that off-road paths would be the main driver of tourist attraction to biking rather than on-road routes.

Issues

- *Key stretches of CTHs labeled as “best condition” by WisDOT were considered unsafe by bikers, particularly CTH F*
- *From a tourism perspective, On-road bike routes will likely not be as enthusiastically received as off-road routes by visitors hoping to bike recreationally.*
- *Large stretches of fire lane throughout the County Forest lands in the eastern portion of the County are virtually undeveloped, which will pose logistical challenges.*
- *Even on “best condition” stretches of highway in the County, paved shoulders would be needed to create a welcoming environment for bicyclists, rather than simply signage.*

Opportunities

- *The Advisory Group concurred that there could be a great deal of value in developing a 12-13 mile, scenic off-road path anywhere in the County.*
- *A proposed off-road route between Elcho & Antigo along the Railroad grade was popularly received and reflected Countywide dialogue on this topic in the past*
- *Stretches of STH 64 were considered fairly hospitable for biking, making access easier for bicyclists and pedestrians traveling to Gartzke Flowage, Kettle Bowl, White Lake, and Wolf River.*

Other Input and Committee Review

The draft plan was sent to a number of key individuals in Langlade County for review and comment during its various stages in the summer and fall of 2018. The primary reviewers included staff for the County Highway and Forestry & Recreation Departments, and the City of Antigo Parks, Recreation & Cemeteries Department. Members of the Langlade Highway Committee also saw and reviewed iterations of the plan during its various stages. The Langlade County Forestry and Recreation Committee was the primary oversight body for this planning process.

Chapter 2: Background and Inventory

Knowing what currently exists provides a baseline for monitoring changes in facility use. An inventory of demographic data, roadway conditions, bicycling and walking facilities, and crash locations will build this baseline.

Demographic Analysis

Langlade County is located in north central Wisconsin and is bordered to the north by Oneida County and Forest County, to the east by Oconto County, to the south by Menominee County and Shawano County, and to the west by Marathon County and Lincoln County. The County is located approximately 90 miles northwest of Green Bay, roughly 20 miles northeast of Wausau, and roughly 60 miles south of the Wisconsin-Michigan border. The County is approximately 888 square miles in size, with an estimated population of 19,414 residents in 2016.

Langlade County contains one city (Antigo), and one village (White Lake). The City of Antigo is the largest municipality in Langlade County with an estimated population of 7,930 residents in 2016. According to projections from the Wisconsin Department of Administration (WDOA), Langlade County is expected to increase in population by 363 residents between 2010 and 2030, as shown in [Table 1](#), which displays population trends for Langlade County. Antigo is projected to decrease in population, while White Lake and the County's townships are expected to increase in population.

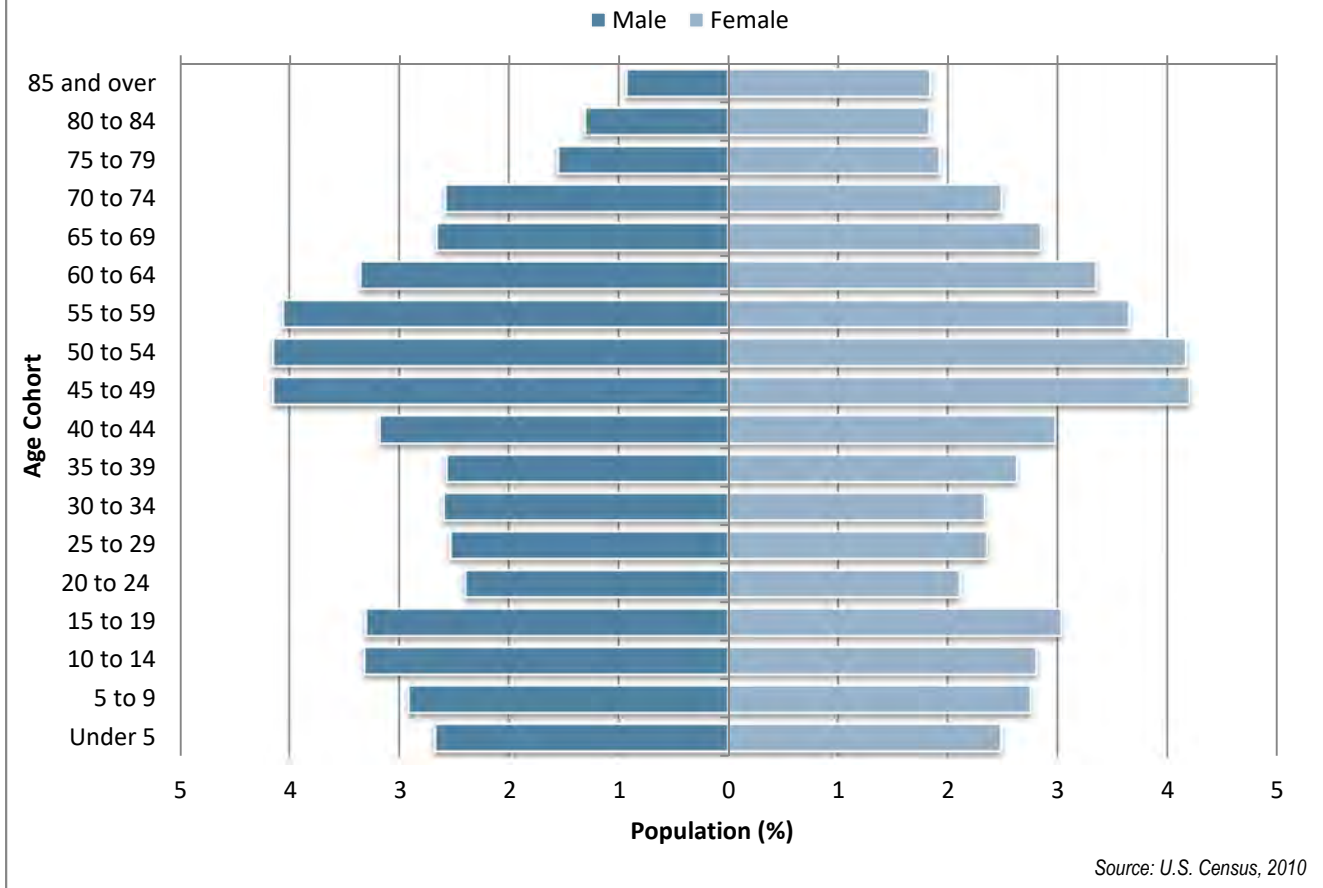
Table 1: Langlade County Population Trends, 2000-2030

	2000	2005	2010	2015	2020	2025	2030	% Change
C Antigo	8,560	8,221	8,234	8,001	7,995	8,020	7,980	-7%
V White Lake	329	328	363	333	380	395	410	25%
Towns	11,851	11,870	11,380	11,217	11,540	11,795	11,950	1%
Langlade County	20,740	20,419	19,977	19,551	19,915	20,210	20,340	-2%

Source: U.S. Census, American Community Survey, WDOA

Walking and biking are often the only means of transportation for individuals under 16 years of age. According to 2015 estimations from American Community Survey (ACS), roughly 17 percent of residents within Langlade County are 15 years old or younger. A survey conducted by the U.S Census has found that individuals most likely to walk or bike to work are in the 16 to 24 and the 55 and over age groups, with rates of walking or biking to work decreasing between 25 and 54 years of age. Approximately 42 percent of Langlade County residents are likely to walk or use bicycles for their commuting needs due to their young age or being in age groups considered more likely to bicycle or walk to work.

Figure 4: Langlade County Population Pyramid



Langlade County had a median age of 45.7 in 2010, Antigo had a median age of 40.6, and White Lake had a median age of 44.8. [Table 2](#) displays age characteristics for Langlade County and its incorporated municipalities. Approximately 38 percent of residents within Langlade County are between 25 and 54 years of age, while approximately 25 percent of residents within the County fall in age groups (16-24 and 55-65) considered as more likely to bike or walk to work. The population pyramid in [Figure 4](#) above shows the sex breakdown of each age group for Langlade County.

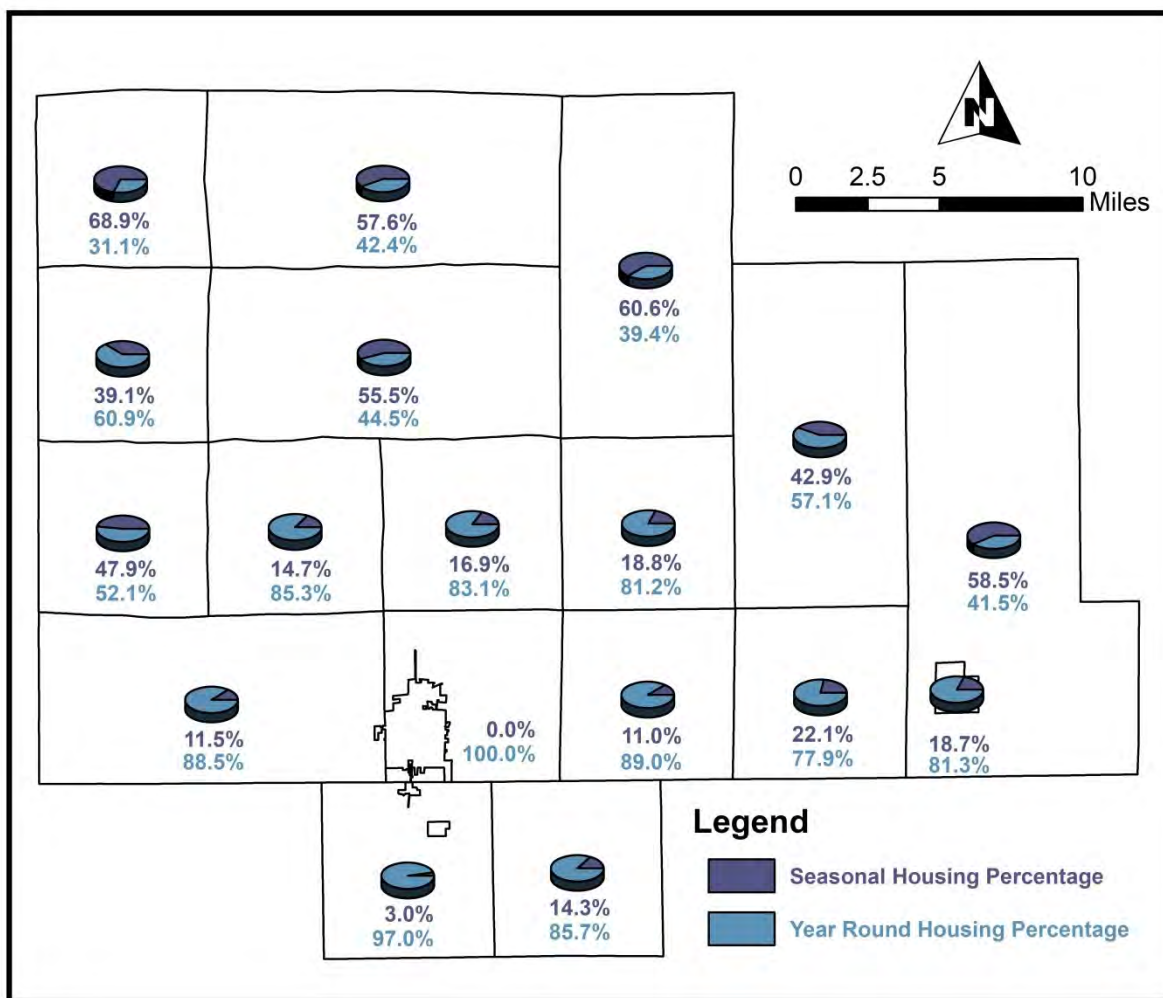
	Median Age	% Under 15*	% 25-54**	% 16-24, 55-64***
C Antigo	40.6	19%	37%	25%
Village of White Lake	44.8	20%	32%	26%
Langlade County	45.7	17%	38%	25%

*: Percent of Individuals 15 years old or younger.
 **: Percent of individuals between 25 and 54 years of age.
 ***: Percent of individuals in the 16-24 and 55-64 age groups.
 Source: U.S. Census 2010

Impact of Seasonal Housing

Bicycling as a recreational activity is common among seasonal residents, especially when scenic trails are available. Seasonal residents often travel to an area just to enjoy the outdoors and this can include bicycling from place to place or on bicycle trails. **Figure 5** shows the percentage of seasonal housing units to total housing units in each of the towns and municipalities in Langlade County. Seasonal housing rates vary from approximately 69 percent in the Town of Parrish to none in the Town of Antigo. Seasonal housing rates are highest in the northern portion of the County, while the southern portion of the County has relatively low seasonal home rates. The trend over the last 20 years has been for seasonal home owners to retire to their seasonal home, thus becoming permanent residents in their former “cottages”. New permanent and seasonal homes are being built as well. These trends are both projected to increase.

Figure 5: Year Round and Seasonal Housing, 2014



Review of Existing Plans, Policies and Regulations

This summary of existing plans, policies, and ordinances influencing bicycling and walking in Langlade County starts with regional plans and policies, and is then organized by municipality. Summaries include purpose, goals, recommendations, identification of bicycle and pedestrian facilities, and/or other key information provided in the plan.

The following plans and policies related to walking and bicycling in Langlade County were reviewed for this plan:

- North Central Wisconsin Regional Bicycle & Pedestrian Plan
- Wisconsin Bicycle Transportation Plan 2020
- State Trails Network Plan 2003
- Wisconsin State Statutes
- Langlade County Code of Ordinances
- Langlade County Comprehensive Plan 2009
- Langlade County Outdoor Recreation Plan 2017-2021
- Wolf River State Trail Master Plan-2005
- Ice Age National Scenic Trail-Corridor Plan and Environmental Assessment for Southern Langlade County, Wisconsin-2013
- City of Antigo Code of Ordinances
- City of Antigo Comprehensive Plan-2018
- City of Antigo Community Outdoor Recreation Plan-2012-2016
- City of Antigo Safe Routes to School Plan-2010-2015
- Village of White Lake Code of Ordinances
- Village of White Lake Comprehensive Plan-2017

North Central Wisconsin Regional Bicycle & Pedestrian Plan

The North Central Wisconsin Regional Bicycle and Pedestrian Plan analyzes bicycle and pedestrian transportation throughout the North Central Region. The purpose of this plan is to “recommend policies, programs, and facilities to improve the safety, viability, convenience, and attractiveness of bicycling and walking for transportation.” This plan also serves to “bridge the gap” between local community planning and State plans, as well as fill in gaps where improvements for bicycling and/or walking end in local community plans, to create a regional network of safe walking and bicycling.

The Federal Highway Administration defines the purpose of walking and bicycling networks in the following quote. “A complete network creates safe, comfortable, and accessible multimodal routes for people walking and bicycling. The network may be comprised of varying facilities that appeal to a range

of ages and abilities, such as shared use paths, sidewalks, and bike lanes. These facilities also provide equitable transportation for people of all income levels.”

During workshop participation in the City of Wausau, multiple participants indicated a desire for a bicycle connection between Wausau’s east side and the City of Antigo.

The Regional Bicycle and Pedestrian Plan contains the following four region-wide goals:

- **Mobility** – *The Trail System must enhance bicyclists’ ability to get around the Region including access to key destinations such as schools, parks, retail areas, and other public facilities.*
- **Functionality** – *New off-road routes, improved existing street routes, signage and marking, and route promotion must be combined to function as a system that is easy and desirable to use.*
- **Safety** – *Every bicyclist and pedestrian in the North Central Region deserves a system that is safe for travel. Improving bicyclist and pedestrian safety was a top priority of the 2004 North Central Wisconsin Regional Bicycle Facilities Plan.*
- **Connectivity** – *The Trail System must provide a seamless transportation system on multiple levels including: internally to all areas of a community; externally to outlying neighbors around the Region; and becoming a part of the bigger picture of a statewide trails network.*

Regional Corridors

Regional corridors are used to link communities with other communities. Bicycle corridors form a conceptual network representing where people want to go on an inter-community or regional basis. Implementing such connections is not always accomplished in the most direct ways, however. Traffic volumes and other safety factors, physical barriers, and the location of previously existing facilities all play a role in the ultimate determination of routes. This recommended network was identified from existing local plans, local input, suitability mapping, and incorporates inventoried existing facilities. Regional corridors within Langlade County are described below.

It is important to note that the Langlade County Bicycle and Pedestrian Plan take precedent over the North Central Wisconsin Regional Bike and Pedestrian Plan in case of conflict over recommended or suggested routes. See <http://www.ncwrpc.org/bikepedplan/regional-bike-ped-plan-2018/> for more information on regional bike and pedestrian corridors.

Langlade County contains the following regional bike and pedestrian corridors:

- **Antigo – Elcho:** 22-28 miles, *poor condition*
- **Antigo – White Lake:** 22-26 miles, *good condition*
- **Elcho – White Lake:** 39-40 miles, *moderate condition*

Regional Corridors linking Forest and Langlade Counties include the following:

- **Crandon – Elcho:** 22 miles, *moderate condition*

- Crandon – White Lake: 38-45 miles, good condition
- Wabeno – White Lake: 30 miles, moderate condition

Regional Corridors linking Langlade and Lincoln Counties include the following:

- Antigo – Merrill: 28-30 miles, moderate condition
- Elcho – Tomahawk: 31 miles, poor condition
- Elcho – Underdown Recreation Area: 26-34 miles, moderate condition

The following regional corridor links Langlade and Marathon Counties:

- Antigo – Dells of the Eau Claire County Park: 18 miles, good condition

The following regional corridors link Langlade and Oneida Counties:

- Elcho – Monico: 11 miles, poor condition
- Elcho – Rhinelander: 22-28 miles, moderate condition (portions with best and undesirable conditions)

The Plan identified proposed routes and trail connections to communities outside of the North Central Region. Langlade County has two proposed connections to communities outside of the North Central Region, traveling from the Village of White Lake to the City of Shawano in Shawano County, and from the City of Antigo to the Village of Wittenberg in Shawano County.

Wisconsin Bicycle Transportation Plan 2020

The Wisconsin Bicycle Transportation Plan was adopted in December 1998. The intention of this plan is to serve as a blueprint for improving conditions for bicycling, clarify the role that the Wisconsin Department of Transportation (WisDOT) plays in bicycling transportation, and to establish policies to further integrate bicycling into the current transportation system.

The following two points serve as the primary goals of the state bicycle plan:

- Increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010 (with additional increases achieved by 2020).
- Reduce crashes involving bicyclists and other motor vehicles by at least ten percent by the year 2010 (with additional increases achieved by 2020).

Objectives of this plan include planning and designing new and improved transportation facilities to accommodate and encourage use by bicyclists, expanding and improving a statewide network of safe and convenient routes for bicycle transportation, expanding the range of bicycle education activities, improving enforcement of laws to prevent dangerous and illegal behavior by motorists and bicyclists, and encouraging more bicycle trips by promoting the acceptance and usefulness of bicycling.

The state bicycle plan generalizes the benefits of bicycling into the following eight categories: health, transportation, safety, environmental, transportation choice, efficiency, economic, and quality of life. When weighing the health benefits of bicycling against the health risks (crash potential) of bicycling, the *National Bicycling and Walking Study* states that “Once people are drawn to greater use of these modes, their numbers may reinforce their greater safety on the roadway as they become more fully accepted as legitimate users of the transportation system,” meaning that increasing numbers of bicyclists could lower the likelihood of being involved in a bicycle crash, due to increased awareness and acceptance of bicyclists on the road.

The 1987 study *Safety Effects of Cross-Section Design for Two-Lane Roads* found that adding four-foot wide paved shoulders on rural two-lane highways reduces occurrences of bicycle-motor vehicle crashes by 29 percent, and the addition of 8-foot wide paved shoulders reduces these crashes by 49 percent.

State Trails Network Plan 2003

The State Trails Network Plan produced by the Wisconsin DNR, identifies a series of potential trail corridors that would link existing trails, public lands, natural features, and communities. The preservation of transportation corridors, especially old rail lines, is discussed as a very important strategy for creating recreational corridors. The following segments of the statewide trail network involve Langlade County.

Segment 19 – Langlade County to Michigan

This abandoned rail corridor links the State of Michigan with the Mountain Bay Trail near Eland in Marathon County. It passes through a few state wildlife areas and some county forests. This corridor also links to the proposed Three Lakes to Rhinelander and Crandon to Tomahawk abandoned rail corridors in Oneida County.²

Segment 56 – Argonne to Shawano (Wolf River State Trail)

The part of this segment from Crandon to White Lake was abandoned in 2001. Argonne is on the Dresser to Michigan corridor in the north, and Shawano links to the Mountain Bay Trail in the south of the corridor. The Crandon to Tomahawk corridor and the White Lake to Antigo corridor link to the Langlade County to Michigan corridor to form a loop. An old abandoned corridor east of White Lake in the future could link this corridor to the Nicolet State Trail or connect it to road routes. In Langlade County this segment follows the Wolf River for about seven miles and continues south through the Northwest portion of the Menominee Indian reservation, terminating at Shawano and its connection to the Mountain Bay Trail.

² **NCWRPC Note:** *The Three Eagle Trail (bicycling & walking) uses segment 19 from Three Lakes, north three miles toward Eagle River. Note that the completion of this trail is not likely per comments received at the February 8, 2007 public meeting.*

Segment 70 – Antigo to White Lake

This abandoned rail corridor links these two communities via an off-road connector. At Antigo it connects to the Langlade County to Michigan corridor and at White Lake it connects to the Crandon to White Lake rail segment about to be abandoned. The corridor runs through the Antigo flats to the Wolf River at White Lake.³

Wisconsin State Statutes

The Wisconsin State Statutes serve as general laws applicable throughout the state of Wisconsin. An overview of the statutes that relate to bicycling and walking is provided on the following page.

346.25: Crossing at Place other than Crosswalk

Under this statute, every pedestrian, bicyclist, or rider of any electric personal assistive mobility device crossing a roadway at any point other than within a marked or unmarked crosswalk shall yield the right-of-way to all vehicles upon the roadway.

346.28: Pedestrians to Walk on Left Side of Highway; drivers to yield on sidewalks

Under this statute, every pedestrian traveling along and upon a highway other than upon a sidewalk shall travel on and along the left side of the highway and upon meeting a vehicles shall, if practicable, move to the extreme outer limit of the traveled portion of the highway. Operators of vehicles shall yield the right-of-way to pedestrians, personal delivery devices, bicycles, and riders of electric personal assistive mobility devices on sidewalks as required by s. 346.47.

346.79: Special Rules Applicable to Bicycles

This statute refers to the special rules bicyclists must abide by whenever operating upon a highway, bicycle lane or bicycle

“A person operating a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto

- Except as provided, no bicycle may be used to carry or transport more persons at one time than the number for which it is designed.
- In addition to the operator, a bicycle otherwise designed to carry only the operator may be used to carry or transport a child seated in an auxiliary child’s seat or trailer designed for attachment to a bicycle if the seat or trailer is securely attached to the bicycle according to the directions of the manufacturer of the seat or trailer.”

“No person operating a bicycle shall carry any package, bundle, or article which prevents the operator from keeping at least one hand upon the handle bars”

“No person riding a bicycle shall attach himself or herself or his or her bicycle to any vehicle upon a roadway”

“No person may ride a moped or motor bicycle with the power unit in operation upon a bicycle way”

³ NCWRPC Note: *The right-of-way for this segment currently does not exist.*

346.80: Riding Bicycle or electric personal assistive mobility device on Roadway

This statute refers to the rules that bicyclists must adhere to when riding upon a roadway.

“In this section, ‘substandard width lane’ means a lane that is too narrow for a bicycle or electric personal assistive mobility device and a motor vehicle to travel safely side-by-side within the lane”

“Any person operating a bicycle or electric personal assistive mobility device upon a roadway at less than the normal speed of traffic at the time and place under the conditions then existing shall ride as close as practicable to the right-hand edge or curb of the unobstructed traveled roadway, including operators who are riding two or more abreast where permitted, except when:”

- “When overtaking and passing another vehicle proceeding in the same direction”
- “When preparing for a left turn or U-turn at an intersection or a left turn into a private road or driveway”
- “When reasonably necessary to avoid unsafe conditions, including fixed or moving objects, parked or moving vehicles, pedestrians, animals, surface hazards, or substandard width lanes that make it unsafe to ride along the right-hand edge or curb”

“Any person operating a bicycle or electric personal assistive mobility device upon a one-way highway having two or more lanes available for traffic may ride as near the left-hand edge or curb of the roadway as practicable”

“Any person operating a bicycle or electric personal assistive mobility device upon a roadway shall exercise due care when passing a standing or parked vehicle or a vehicle proceeding in the same direction and, when passing a standing or parked vehicle that is a school bus that is not displaying flashing red warning lights or a motor bus, shall allow a minimum of three feet between the bicycle or electric personal assistive mobility device and the vehicle”

“Persons riding bicycles or electric personal assistive mobility devices upon a roadway may ride two abreast if such operation does not impede the normal and reasonable movement of traffic. Bicycle or electric personal assistive mobility devices operators riding two abreast on a two-lane or more roadway shall ride within a single lane”

“Persons riding bicycles upon a roadway may not ride more than two abreast except upon any path, trail, lane or other way set aside for the exclusive use of bicycles and personal assistive mobility devices”

“No person may operate a bicycle, electric personal assistive mobility device, or moped upon a roadway where a sign is erected indicating that bicycle, electric personal assistive mobility device, or moped riding is prohibited.”

“Every rider of a bicycle or electric personal assistive mobility device shall, upon entering a highway, yield, and every personal delivery device operator shall ensure that the personal delivery device, upon entering on a highway, yield the right-of-way to motor vehicles.”

346.803: Riding Bicycle or electric personal assistive mobility device on Bicycle Way

This statute refers to the rules that bicyclists must adhere to when riding upon a bicycle way.

“Every person operating a bicycle or electric personal assistive mobility device upon a bicycle way shall:

- Exercise due care and give an audible signal when passing a bicycle or electric personal assistive mobility device rider or a pedestrian proceeding in the same direction.
- Obey each traffic signal or sign facing a roadway which runs parallel and adjacent to bicycle way.”

“Every person operating a bicycle or electric personal assistive mobility device upon a bicycle way open to two-way traffic shall ride on the right side of the bicycle way”

“Every operator of a bicycle or electric personal assistive mobility device entering a bicycle way shall yield the right-of-way to all bicycles and pedestrians in the bicycle way”

346.804: Riding Bicycle on a Sidewalk

When riding upon a sidewalk permitted for bicycle use by local authorities, this statute requires every person operating a bicycle upon a sidewalk shall yield the right-of-way to any pedestrian and shall exercise due care and give an audible signal when passing a bicycle or electric personal assistive mobility device rider or a pedestrian proceeding in the same direction.

347.489: Lamps & other Equipment on Bicycles and other vehicles and devices

This statute refers to bicycle equipment requires across the State of Wisconsin.

No person may operate a bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device upon a highway, sidewalk, bicycle lane, or bicycle way during hours of darkness unless the bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device is equipped with or, with respect to a bicycle or motor bicycle, the operator is wearing, a lamp emitting a white light visible from a distance of at least 500 feet to the front of the bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device. A bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device shall also be equipped with a red reflector that has a diameter of at least 2 inches of surface area or, with respect to an electric personal assistive mobility device, that is a strip of reflective tape that has at least 2 square inches of surface area, on the rear so mounted and maintained as to be visible from all distances from 50 to 500 feet to the rear when directly in front of lawful upper beams of headlamps on a motor vehicle. A lamp emitting a steady or flashing red light visible from a distance of 500 feet to the rear may be used in lieu of the red reflector.

No person may operate a bicycle, motor bicycle, or electric personal assistive mobility device upon a highway, bicycle lane, or bicycle way unless it is equipped with a braking system in good working condition, and can adequately control the movement of and to stop the bicycle, motor bicycle, or electric personal assistive mobility device whenever necessary.

No bicycle, motor bicycle, or electric personal assistive mobility device may be equipped with nor may any person riding upon a bicycle, motor bicycle, or electric personal assistive mobility device use any siren or compression whistle.

Langlade County Code of Ordinances

The Langlade County Code of Ordinances includes the following items that are relevant to bicycling and walking in the County.

County Forests (Chapter 16)

Section 16.25 states that “No person shall operate any unlicensed motor bicycle or motor vehicle, as defined in §340.01, Wis. Stats., in any park, wayside or special recreation area or operate a motorcycle without a valid operator’s permit for motorcycle operations.”

Zoning Ordinance (Chapter 17)

The Langlade County Zoning Ordinance covers all unincorporated areas of the county. The zoning ordinance states that sidewalks may be included anywhere on a lot as long as the sidewalk is not at a height above 2.5 ft. above the road elevation.

Subdivision and Platting (Chapter 18)

Under **Section 18.23**, pedestrian walkways are required to be at least ten feet wide, and may be required through the center of blocks more than 900 feet long where it is deemed essential to provide pedestrian access to schools, playgrounds, shopping centers, transportation, or other community facilities.

Langlade County Comprehensive Plan 2009

Transportation Element

The Bicycle and Pedestrian Facilities section of the Transportation Element notes that all roads, except for freeways, are available for bicycle and pedestrian travel. Currently, Antigo, White Lake, and the town center of Elcho are the only communities within Langlade County with existing sidewalks.

The following goal, objectives, and policies of the Transportation Element relate to bicycling and walking:

- **Goal 1:** *To provide an integrated, efficient and economical transportation system that affords mobility, convenience, and safety, and that meets the needs of all citizens, including transit-dependent and disabled citizens, while maintaining the rural character of the County.*
 - **Objective 1:** *Maintain the efficiency, safety, and functionality of the County’s existing transportation system, which links the urban center with outlying towns, adjacent communities, and the region.*
 - **Objective 2:** *Encourage a balanced transportation network that provides a choice in the type of mode (i.e. car, bus, bike, walking, etc.) easy transfer between modes and transportation opportunities for those without use of an automobile.*
 - **Policy 5:** *Consider future roadway, trails, and rail locations, extensions, or connections when reviewing development plans and proposals.*
 - **Policy 11:** *Encourage traditional neighborhood designs (TND) to support a range of transportation choices.*

Langlade County Outdoor Recreation Plan 2017-2021

The Langlade County Outdoor Recreation Plan was created to “promote, encourage, coordinate, and implement a comprehensive long-range plan to acquire, maintain, and develop for public use, those areas of the state best adapted to the development of a comprehensive system of state and local outdoor recreation facilities and services...” The plan includes a detailed inventory of all outdoor recreational facilities within the County, as well as an analysis of these facilities.

In terms of goals of the plan, walking and bicycling are addressed in Goal Three by Objectives three, four, and five.

Goal 3- Continue to improve and develop outdoor recreation opportunities throughout Langlade County.

- **Objective 3:** *Finish developing the Wolf River State Trail*
- **Objective 4:** *Upgrade existing trails of all types*
- **Objective 5:** *Become a bicycle friendly county*

ORP Survey

The Langlade County Forestry, Land, and Parks Department conducted a survey to allow for public input about outdoor recreation opportunities within the county. Key findings related to biking and walking from this survey found that walking and hiking was the second most popular recreational activity within the county, and that bicycling was the fifth most popular recreational activity. The need for an increase of bicycle trails within the county was one of two major themes found from public comments, with a total of 79 comments stating a need for more bicycle trails.

Existing Recreation Facilities

The following recreational facilities provide trails for walking and/or bicycling:

- Wolf River State Trail
- Ice Age National Scenic Trail
- Langlade County Forest
- Jack Lake Area Mountain Bike Trail
- Chequamegon-Nicolet National Forest
- Camp Susan 4-H Camp
- Moose Lake Park
- Kettlebowl Downhill Ski Area
- City of Antigo – City Wide Bike Route
- Springbrook Trail
- Single Track Mountain Bike Trail
- Wolf River Corridor
- High Lake
- Post Lake Dam
- Veterans Memorial Park
- Gatzke Flowage Ski/Bike Trails
- Hunter Walking Trails
- Moccasin Lake Road Ski Trail
- Parrish Highlands ATV Trails
- Augustyn Springs ATV Trails
- Game Lake Nature Trails
- Townline Lake
- Northern Natural Area
- White Lake School Forest
- Peter’s Marsh Wildlife Area
- Dog Sled Trails
- Crocker Hills Horse Trail
- Antigo Bicycling Trails
- Silver Birch Trail
- Jones Spring Area

Recommendations

Recommendations in the Langlade County Outdoor Recreation Plan related to walking and/or bicycling include creating a bicycle facilities plan to highlight which locally approved roads and highways could become bicycle routes, finishing the proposed segment of the Ice Age National Scenic Trail, and creating a new bicycle trail about 60 miles in length. The new bicycle trail would mainly follow fire lanes within County Forest lands, and would run from the Town of Parrish to Summit Lake, from Summit Lake to Jack Lake, from Jack Lake to the Kettlebowl area, and from the Kettlebowl area to White Lake. Other recommendations include the development of Mills Recreation Area in the Town of Ackley to provide a hiking/biking trail, develop a walking trail along Lawrence Lake, and further develop the hiking trail at Camp Susan.

Wolf River State Trail Master Plan-2005

In 2005, Langlade County and the Wisconsin Department of Natural Resources prepared a master plan to develop the segment of the Wolf River State Trail located within the county. The trail spans a total of 24 miles within the county, starting at the Menominee/ Langlade County line in the southeastern part of Langlade County and runs north to the Langlade/Forest County line. The trail then continues to run north in Forest County to the City of Crandon.

ATVs are permitted north of Lily year-round. Between Lily and White Lake, ATVs are currently only permitted during the winter. Once connections with local ATV trails can be made, the segment from 0.25 miles north of Highway 64 to White Lake can be used as a year-round ATV trail system connector. If riding an ATV in the winter one must stay on the Wolf River State Trail, snowmobile trails leading off the corridor are not open to ATVs.

Ice Age National Scenic Trail-Corridor Plan and Environmental Assessment for Southern Langlade County, Wisconsin-2013

In 2013, the National Park Service, Ice Age Trail Alliance, Wisconsin Department of Natural Resources, and North Central Wisconsin Regional Planning Commission developed the *Ice Age National Scenic Trail - Corridor Plan and Environmental Assessment for Southern Langlade County, Wisconsin*. The Ice Age National Scenic Trail is one of eleven National Scenic Trails within the country, and is approximately 1,000 miles in length, spanning 30 different counties. The trail is mainly intended for pedestrian use, but does allow for bicycling in portions of the trail that share a segment with a state multi-use trail. Currently, Langlade County contains 54 miles of the statewide trail, and is expected to contain between 70 and 75 miles of trail with the completion of this plan. The purpose of this plan is to create a corridor/path for a future segment of trail that would connect the current endpoint of the trail located in the Town of Polar to the proposed endpoint of the trail at the Town of Rolling/Marathon County border line. Implementation of the Plan is a work in progress. More information about the Langlade County portion of the trail can be found at (<https://www.iceagetrail.org/volunteer/chapters/langlade-county/>).

City of Antigo Code of Ordinances

The City of Antigo has several plans and policies in place directly relating to bicycling and/or walking in the City. The City also has numerous facilities that provide opportunities for walking and bicycling. Below is an overview of the bicycle and walking policies the City has in place.

The City of Antigo Code of Ordinances contains the following items that are relevant to bicycling and walking within Antigo.

Sidewalks

Sidewalks are covered by Chapter 34 of the Code of Ordinances. For property owners within the city, sidewalks are required under Section 34-40 if they are contiguous to any primary streets, including

state and federal highways, or any principle route to school. The Official Street Map of the city depicts primary roads and principle routes to school, and can be found in Section 34-38.

Section 34-40 assigns the various construction and repair costs for sidewalks, and also determines who (property owner, the city, or taxpayers) is responsible for payment, and how much of a payment they are responsible for. Sidewalk specifications are also covered by Section 34-40. Sidewalks within the city shall have a standard width of 5 ft. with special sidewalk-widths being subject to a variety of factors such as street-width, proximity to public buildings, or passages to a curb. Standard thickness for sidewalks within the city is 6 inches deep.

Section 34-46 requires ice and snow to be removed within 48 hours of a snowfall by the adjacent landowner. Failure to comply will result in a fee charged from the city as a special tax.

Traffic & Vehicles

Bicycles are covered by Chapter 38 of the Code of Ordinances. Section 38.6 of the City of Antigo Code of Ordinances requires all pedestrians to obey all traffic control devices on any highway within the city, unless otherwise instructed by a law enforcement officer. This section also prohibits pedestrians from walking along a road if a sidewalk is provided, unless the sidewalk is unsafe, obstructed, or closed.

Section 38.8 allows for school crossing guards to stop traffic to allow children to safely cross the street.

Section 38-304 grants all bicyclists the same rights and responsibilities of a motorized vehicle driver.

Section 38-306 requires the following from bicyclists:

- 1. Every person operating a bicycle upon a two-way traffic road should ride as near as possible to the right edge of the unobstructed roadway.*
- 2. Every person riding a bicycle shall ride in single file when in groups*
- 3. No bicycle shall carry more persons than it is designed to handle*
- 4. No person shall carry an object that prevents safe operation of the bicycle*
- 5. No bicyclist shall remove both hands from the handlebars or feet from the pedals or practice acrobatics or fancy riding on any street*
- 6. Whenever a usable path for bicycles has been provided near a roadway, bicyclists shall use such path instead of the roadway*
- 7. No person may ride a bicycle or moped upon a roadway or path with a sign indicating that bicycles are prohibited*

Section 38-306 also prohibits bicyclists from parking their bike in front of or adjacent to commercial businesses, and requires them to park on the sidewalk parallel to the street, as close as possible to the curb, and prohibits hazardous placement of bicycles. Bicyclists are required to be equipped with adequate brakes, keep their brakes in good working condition, and clearly display a valid license sticker on their bicycle. Bicyclists are prohibited from clinging or attaching to other moving vehicles, towing toy vehicles or other bikes, and from traveling at a speed greater than is reasonable or in excess of the

posted speed limit. Bicyclists are also prohibited from riding their bikes with an audio device directly attached to an ear that would prevent them from hearing any traffic signals or warnings.

Under section 38-306 of the city's code of ordinances, bicyclists are allowed to safely ride their bike on any sidewalk within the city except for the following:

1. *Clermont Street between Fourth and Sixth Avenues*
2. *Edison Street between Fourth and Sixth Avenues*
3. *Superior Street between Fourth and Sixth Avenues*
4. *Fifth Avenue between Field and Lincoln Streets*

Under Section 38-307, all residents of the city must register their bicycles if they intend on riding their bicycle on any roadway, alley, or public path within city limits. Nonresidents who ride frequently within city limits are also required to register their bicycle. Bicyclists have up to 10 days after purchase to register their bike.

City of Antigo Comprehensive Plan-2018

Transportation Element

Bicycling and walking each have a section in the Transportation Element of the City of Antigo Comprehensive Plan. The *Bicycle* section notes that Antigo is a bicycle friendly community, with a City Bike Route that connects community facilities, businesses, schools, and parks through the use of both paths and on-street routes. The *Pedestrian* section notes that improvements could be made for pedestrian comfort and safety in the commercial district located in the northern area of the city limits.

The following goals of the Transportation Element relate to bicycling and walking.

- **Goal 1:** *Improve the safety and efficiency of all modes of transportation*
 - **Objective C:** *Incorporate design elements into the reconstruction of downtown streets, to increase safety and visibility and to further the economic development of downtown by creating a sense of place.*
 - **Objective D:** *Within the downtown, prioritize walkability over traffic movement to encourage more foot traffic.*
- **Goal 2:** *Create an environment that is safe and conducive to walking and bicycling throughout the entire city.*
 - *Increase connectivity within the City through the installation of sidewalks and trails in existing and new developments.*
 - *Continue to develop the City's sidewalk policy plan.*
 - *Provide walking paths through subdivisions to main destination sites such as schools, playgrounds, etc.*
 - *Develop a comprehensive system of trails that connects points of interest within the City but also to points and trail systems outside the City.*
 - *Develop and install signage to mark local bicycle routes.*
 - *Bike lanes/infrastructure*

City of Antigo Community Outdoor Recreation Plan 2012-2016

The City of Antigo Community Outdoor Recreation Plan identifies parks and other facilities within the city with walking and/or bicycle trails in the City of Antigo Amenity Matrix. Northern Natural Area and Springbrook Trail are the only two facilities highlighted in the matrix that have walking and/or bicycle trails. The plan notes that the Springbrook Trail has experienced overwhelming public support since completion of the first segment of the trail in 2010. The plan also notes that expansion to the existing trail system is already being built into future park plans. One goal of the Antigo City Parks Plan is to connect the City to the Ice Age National Scenic Trail. Installation of sidewalks and bike lanes along Tenth Avenue was mentioned in a public meeting as something the City should look into to increase safety and access to school.

City of Antigo Safe Routes to School Plan 2010-2015

The primary purpose of Safe Routes to School Plans nationwide is to increase the safety and regularity of children walking or bicycling to and from school. One of the primary reasons Safe Routes to School is a nationwide effort is to increase walking and bicycling among children as part of their daily routine to help combat childhood obesity.

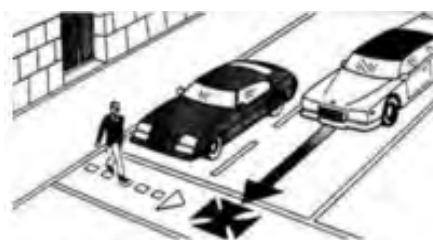
Bicycle Facilities

The City of Antigo Safe Routes to School Plan identifies all existing bicycle facilities located within the City. The Bicycle Facilities section of the plan notes that bicycling is available on all roads except for freeways within the City, and that there are no restrictions for bicycling on sidewalks. The only existing bike lane that is highlighted in the Bicycle Facilities section is located next to the high school in the southwest side of Antigo on 10th Avenue, and spans three blocks. The bike lane is only on one side (north side) of the road. This section also highlights a planned multi-use trail that will allow both bicycling and walking, and will run from J.C Park in the southern part of the City to Charlotte Court in the northern part of the City. The Wisconsin Department of Transportation (WisDOT) has identified State Highway (STH) 45, STH 52, and County Highway F as poorly suited for bicycle travel due to a lack of on-street or off-street bicycling accommodations and high volumes of traffic along these highways. There were no city roads that had bicycle suitability ratings of good or bad.

Pedestrian Facilities

Pedestrian Facilities are also identified by the safe routes to school plan. This section notes that the City is continuing to add sidewalk curb ramps wherever sidewalks exist throughout the

Figure 6: Crosswalk Visibility



This image illustrates a multiple-threat collision.

NOTE: Do not allow parking within 10-20 feet of crosswalk to provide visibility.

City. The intersection of 5th Avenue and Superior St (USH 45) contains a pedestrian friendly stop line, to help prevent cars from stopping in the crosswalk. The Safe Routes to School Map identifies where existing sidewalks and priority streets are located.

Safe Routes to School Plan Recommendations

The Community-Wide recommendations follow the five E's for the whole community, meaning the city must take into account the following: Education, Encouragement, Enforcement, Engineering, and Evaluation. The following Community-Wide recommendations for bicyclists and pedestrians are taken from the Community-Wide Recommendations Section of the City Safe Routes to School Plan (SRTS).

- CW 1a. Complete installation of sidewalks along safe routes to school for North, East, Middle, and West schools within the City of Antigo.
- CW 1b. Paint stop line 10-feet from crosswalk lines at all safe routes to school intersections, and do not allow parking within 10-feet of intersection. See Figure 6. Move the stop signs back to this new stop line too.
- CW 1c. Create a list of high traffic or high crash intersections along safe routes to schools. Analyze each intersection to make sure stop lines are set back 10-feet, crosswalks are visible, and pedestrian actuated signals are working properly.
- CW 1d. Re-program pedestrian signals at USH 45 & 5th Ave to automatically change, and have them change 3 seconds before the traffic lights allow vehicles to proceed. Remove all buttons.
- CW 1e. Continue to install curb ramps where sidewalks

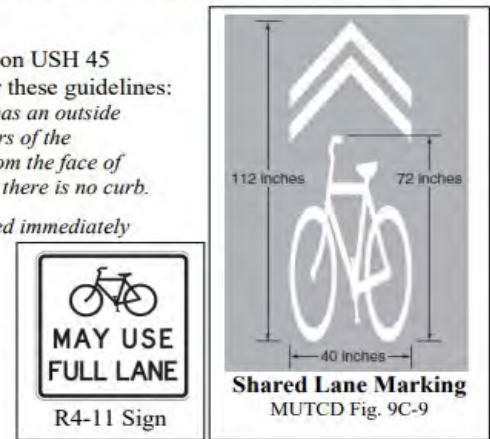
Figure 7: USH 45 South and North Road Diet Concept
City of Antigo Safe Routes to School Plan

Problem: If a road diet is created on US Highway 45 from 10th Ave to 6th Ave, then motorists and bicyclists need to know how to merge after the bike lane ends. In the graphic below, "BEFORE" lane widths are equal to current USH 45 lane widths from 10th Avenue south to County Highway Y.

Northbound Solution: Heading northbound on USH 45 at 6th avenue, paint Shared Lane Markings per these guidelines: *If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.*

If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.

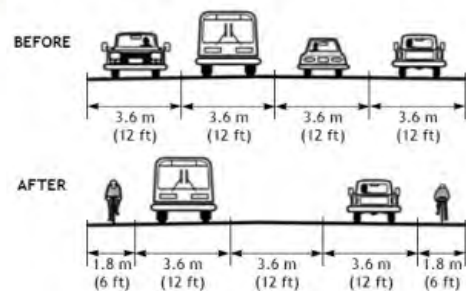
Install a May Use Full Lane (R4-11) sign wherever a Shared Lane Marking is painted.



Southbound Solution: Heading southbound on USH 45 at 10th avenue, narrow the travel lanes to add bicycle lanes in both directions and add a central two-way-left-turn-lane. Modify the "AFTER" lane widths for USH 45 by reducing the center travel lanes from 11-ft to 10-ft, and widening the curb side lane from 11-ft to 12-ft to accommodate truck traffic.

Here are the street and location criteria to identify potential candidates for road diets:

- Moderate volumes (8,000–15,000 ADT).
- Roads with safety issues.
- Popular or essential bicycle routes/links.
- Commercial reinvestment area
- Economic enterprise zones.
- Historic streets.
- Scenic roads.
- Entertainment districts.
- Main streets.



Source Oregon Bicycle and Pedestrian Plan

exist to benefit all non-motorized users.

- CW If. Upgrade Superior St/USH 45 crossing to increase pedestrian visibility at:
 - Graham Ave
 - 7th Ave
 - 8th Ave
 - 10th Ave
- CW Ig. Paint Shared Line Markings (Figure 7) on 5th Avenue, if there is not enough room for an 8-foot parking lane, a 6-foot bike lane, and a 10-foot travel lane.
- CW Ih. Paint bicycle lanes on USH 45 between 5th Ave and 10th Avenue. See Figure 7 for “road diet” line patterns.
- CW Ii. Paint safe routes to school crosswalks in the “Ladder” style to add visibility to each crossing.
- CW Ij. Re-stripe 10th Avenue to provide a bicycle lane on both sides, and plow all the snow off of 10th.

Village of White Lake Code of Ordinances

The Village of White Lake has several plans and policies in place directly relating to bicycling and/or walking in the Village. The Village also has numerous facilities that provide opportunities for walking and bicycling. Below is an overview of the bicycle and walking policies the Village has in place.

The Village of White Lake Code of Ordinances contains the following items that are relevant to walking and bicycling within White Lake.

Streets, Sidewalks, Rights-of-Way & Other Public Places

Chapter 26 of the Code of Ordinances covers streets, sidewalks, Rights-of-Way, and Other Public Places. The ordinances establish that no person may construct a sidewalk within the Village without a construction permit. It is the responsibility of the property owner to repair, construct, and maintain sidewalks along any street, alley, or highway in the Village and to pay the entire cost.

Section 26-33 covers sidewalk construction and repair costs. All expenses for the laying, removal, and repairing of sidewalks for each parcel of land will be kept in an accurate account, to be used to charge the landowner a special tax to pay for the construction or repair.

Section 26-34 requires that residential sidewalks be four feet in width and no less than four inches deep, with a minimum thickness of six inches within driveway approaches. Sidewalks in front of commercial or industrial establishments must be at least eight feet in width and four inches thick, with a minimum thickness of six inches within driveway approaches.

Zoning Ordinance

Pedestrians are only mentioned in Section 32-60 of the Zoning Ordinance. Streets within the Village will require designs and locations to take into account the public convenience and safety including facilities for pedestrian traffic.

Village of White Lake Comprehensive Plan 2017

Transportation Element

The Bicycle and Walking section of the Transportation Element describes conditions and opportunities for walking and bicycling within the Village. Data in a heat map provided by the ride-tracking GPS Service, “Strava”, indicates that there is significant bicycle usage within the Village, especially on the following roadways: Church Street, Buettner Road, County Road M, County Road P, Lake Street, Lakeside Street, Stamper Road, and Grudgeville Road.

Segments of the Wolf River State Trail are located within the Village. The segment of the Wolf River State Trail located within the Village is rated by WisDOT as in good condition in the portion west of the CTH M – STH 64 junction and in moderate condition east of the CTH M – STH 64 junction.

The Bicycle and Walking section notes that the Village of White Lake has sidewalks on some streets throughout the village, but the sidewalk network is disconnected and in need of maintenance. Estimates from the 2008-2012 American Community Survey show that 13 percent of all workers within the Village rely on walking as their primary mode of transportation, which is very high compared to other rural areas in the state.

Goal One of the Transportation Element is to “Provide an integrated, efficient, and economical transportation system that affords mobility, convenience, and safety that meets the needs of all citizens.” The following objectives of Goal One relate to bicycling and walking.

- **Objective 1:** *Support and maintain a safe and efficient Village road system.*
- **Objective 2:** *Promote the development of multi-use trails, trail linkages, wide shoulders, or sidewalks as part of new development proposals, where appropriate.*
- **Objective 3:** *Evaluate and accommodate the needs and safety of bicyclists and pedestrians.*

Existing Facilities Inventory

In the transportation world, bicycling and walking have received much attention over the past 20 years. Langlade County has taken steps to bring together the municipalities and school districts to do planning for these modes. As part of that process it is important to take stock of what currently exists in the County, assess conditions facing people who are bicycling or walking or who want to bike or walk more often, and what the infrastructure is like to make bicycling, walking, and hiking attractive options in the County. Visual representation of the facilities listed below can be found in Map 2.

Table 3: Existing Bicycle and Pedestrian Facilities in Langlade County

City of Antigo

The City of Antigo has an extensive network of bicycle routes that connect to destinations throughout the community. Through the support of sponsors and governmental coordination, Antigo has established a system of signed bicycle routes to bolster cyclist safety and encourage cycling as form of transportation and a method of bolstering tourism.

The Springbrook Trail, a scenic 2.3 mile boardwalk for cyclists and pedestrians running along Springbrook Creek, is a major staple to the Antigo Community, connecting the city to wilderness and park areas. The City is looking for funds to extend the bicycle and pedestrian trail network. A TAP application from the City did not receive funds; however, it is a good candidate project for a future grant cycle if the City decides to apply again. The City also hosts a single track mountain bike trail at N1985 Dump Road.

Per Antigo's Comprehensive Plan, the City is continuing to install signage to mark its local bike routes, and hopes to expand its trails to connect destinations throughout the City within the next decade. The City may also work with neighboring townships to connect destinations within those communities to the City.

Village of White Lake

The Village contains sidewalks sporadically throughout the community, but has identified a lack of connectivity between these facilities as an issue in its Comprehensive Plan. The Village currently serves as the southern terminus for the Wolf River State Trail. However, the Trail will expand to the south of the Village in the future.

Town of Elcho

Elcho has sidewalks in the "downtown" area along USH 45, primarily near the high school. Given the proximity of the school to a major highway, this area would greatly benefit from improved intersection and pedestrian facilities.

Town of Polar

The Town of Polar hosts the Gartzke Flowage Hiking, Mountain Bike, Cross Country Skiing and Snowshoeing Trails. The 6.5 miles of trails are open to walking and biking in the spring and summer seasons.

Town of Upham

The Town of Upham is home to Veterans Memorial County Park, which hosts the Jack Lake Mountain Bike Trail System. Groomed for hiking and recreational biking, the 8.3 single and double track trails host a family and beginner-to-intermediate experience for recreational bikers and hikers. Jack Lake was among the most frequently cited destination nodes in the County by public input, the Advisor Group, and the Forestry & Recreation Committee.

Town of Wolf River

The Town of Wolf River contains much of the Wolf River State Trail utilized by all forms of off-road transportation between the Town of Langlade and Village of White Lake. Future construction of the trail will travel through the southern portion of the township to meet the Menomonee County line.

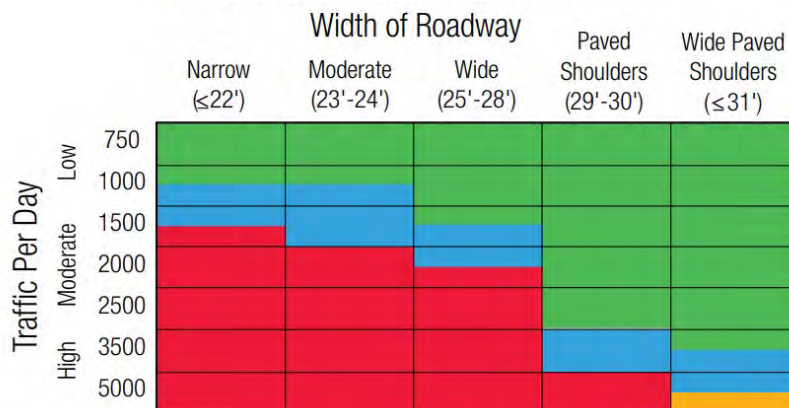
The Town also hosts the Nicolet Roche Mountain Bike Trail, a picturesque mountain bike trail located in the Chequamegon-Nicolet National Forest designed for more advanced bikers.

Wolf River State Trail

The Wolf River State Trail is a multi-user state trail running south to north through eastern Langlade County, connecting Crandon to the Village of White Lake. It crosses through White Lake, and the Towns of Wolf River and Langlade. The surface of the 33 mile trail is comprised of crushed stone and ballast rock. Future completion will extend the trail four miles south to the Langlade-Menomonee County line.

The Langlade County portion of the Trail can be and is used by pedestrians and cyclists – however, the trail tread is undeveloped to an extent where biking may be inhospitable. The Trail is also shared with all-terrain vehicles (ATVs).

Figure 8: Generalized bicycling conditions for rural roadways



The table illustrates, in a generalized fashion, how state and county highways were classified by their conditions for bicycling. Traffic and width of roadways are the two primary variables affecting bicycling conditions. Green – Best conditions; Blue – Moderate conditions; Yellow – Higher Volumes, Wider Paved Shoulders; Red – Undesirable Conditions

Local Roadway Suitability Evaluation

WisDOT has developed a road evaluation method based on the needs of rural bicyclists as part of their Rural Bicycle Planning Guide in 2006. The method is quantifiable and cyclists, stakeholders, and other agencies can practice the method which contains the following steps:

1. *Identify Annual Daily Traffic, or ADT*
2. *Determining how much of a road segment has a solid yellow line-roads with more solid yellow lines are less suitable for cycling because of limited sightlines. The more curves or hills along a stretch of roadway, the more solid yellow lines that stretch of roadway will have.*
3. *Identifying percentage of ADT that is truck traffic (if unknown, the guide suggests assuming ten percent of ADT).*
4. *Determine Pavement width.*

The guide then provides intuitive reference table to determine bicycling conditions for rural roads. The tables are separated based on common road widths. A summary table of varying rural bicycling conditions is included on the previous page in [Figure 8](#).

The WisDOT Bicycle Suitability Map provides a visual catalog of roads (mostly State and county highways) for counties in the Region and State by their suitability for bicycling based on the current conditions and space available along the roads. WisDOT and the Wisconsin Bicycle Federation (Bike Fed) reevaluated the State's roadways in 2015, as shown in Map 3. Bicycle suitability for roads is categorized in the following ways:

1. Best Condition
2. Biking Prohibited
3. High Volume, Undesirable
4. Higher Volume, Wider Paved Shoulders
5. Moderate Condition
6. Town Roads Unpaved

While these categorizations do not constitute a plan or strategy, they do provide a detailed and relatively user-friendly inventory of current bicycling conditions throughout the County while taking into account road types, conditions and general desirability. The Suitability Map is used to evaluate bicycle corridors throughout the County. It is strongly suggested for communities when considering improvements to a roadway, that the bicycle suitability rating be reassessed with the roadway's latest traffic and truck count data.

The basic premise of the road suitability methodology is to make adjustments to the traffic volume (ADT) and pavement width (in feet) for the roadway being evaluated based on the other factors listed such as percent yellow line or percent truck traffic. However, data used in the evaluation is not as readily available for rural town roads as it is for county and state highways. Although traffic count studies are not available, general observation indicates that traffic volumes are sufficiently low, usually below 500, on the town roads. Based on the traffic count maps, there is no reason to assume that local roads, which feed higher volume county roads are individually significant contributors of traffic volume,

with the possible exception of certain roads surrounding an urban area. Therefore, adjustments to the ADTs on town roads will not likely increase working ADT levels over the acceptable threshold even with narrow widths.

In and around a built-up or "urban" area, main arterials and collector streets must be evaluated carefully when being considered as designated bike routes. On urban roads, slightly higher traffic volumes are suitable for bicyclists because speeds are generally lower than rural roads. In areas where traffic is dangerously fast, many communities are turning more to traffic calming techniques. Neighborhood streets generally need not be individually evaluated because traffic volumes on these streets are typically low enough that they are well suited to bicycling activities without any physical improvements.

Traffic Counts

Map 4, Traffic counts, makes it easy to see the average daily traffic counts in Langlade County. These counts come from counts taken within the County by WisDOT in 2009, 2012, or 2015. If a segment did not have a 2015 count then the 2012 count was used. Counts that showed less than 500 Annual Average Daily Traffic (AADT), usually makes them the "best conditions" for bicycling if a road is paved, otherwise a gravel road could be a hazard to a bicyclist if the surface is not graded and from a passing vehicle's dust.

Generally, the wider the road, the more vehicle and bicycle traffic it can accommodate, because fewer *triple pass occurrences* would restrict traffic speed. It is the law in Wisconsin that a motor vehicle must provide at least 3 feet between it and a bicycle when passing. Buses are wider than cars, and buses are about 8.5 feet wide; so a car (less than 8.5 feet wide) + 3 feet + a bike + an on-coming care can fit on a road that is 24 feet wide without any of the three vehicles leaving the pavement. The car passing the

Triple Pass Occurrence-A triple pass occurrence is when a bicycle, and oncoming motor vehicle, and an overtaking motor vehicle arrive at the same lateral section at the same time.

bike would probably cross the centerline slightly to make room for the bike, while still maintaining room for the on-coming vehicle.

Crash Analysis

Safety is often cited as the primary reason people do not bike or walk more. Creating a safer environment for these activities is an important focus that requires an understanding of safety issues and proven actions that can be taken to improve safety. Crashes involving motor vehicles that result in injuries or fatalities to bicyclists and pedestrians have been recorded at the state and federal levels for many years.

Over the past few decades, traffic safety experts have been moving away from the term "accident" in favor of the term "crash" to describe a collision. An accident is defined as an unforeseen and unplanned

event or circumstance. WisDOT made this change in 1990 because traffic crashes are not accidents, but avoidable events caused by a single variable or chain of variables.

Crash data are reported universally for Wisconsin on Form MV400. However, it is important to highlight some shortcomings:

1. Some studies indicate that as few as ten percent of all bicycle crashes are reported;
2. Some roads with a higher frequency of bicycle crashes may have higher bicycle use;
3. Very likely that there will be no detectable pattern of bicycle crashes because of the small number reported in rural areas and small cities.

There are numerous roads within Langlade County where multiple reported bicycle crashes have occurred between 2000 and 2016. **Table 4** displays roads within Langlade County where there were multiple reported bicycle crashes. The City of Antigo contains the most roads with multiple crashes with seven, while the Towns of Ainsworth and Elcho each contain roads with multiple crashes as well. All other municipalities in the County only have roads with single occurrences of reported bicycle crashes.

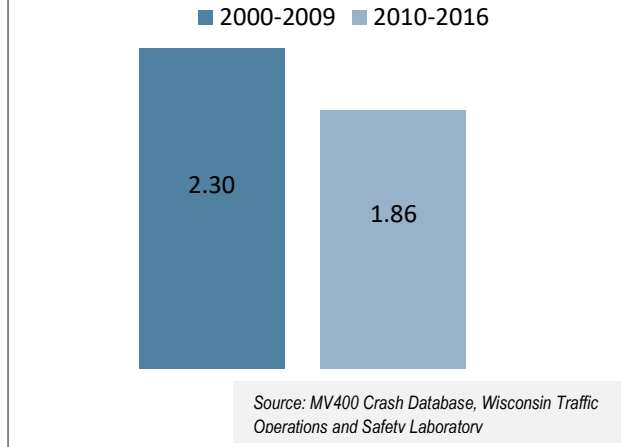
Table 4: Langlade County Roads with Multiple Bicycle Crashes	
C Antigo	
Road	
	Superior St (Hwy 45).
	Clermont Ave.
	4th Ave.
	5th Ave.
	6th Ave.
	7th Ave.
	Dorr St.
T Ainsworth	
Road	
	County Hwy A
	Augustyne Springs Rd.
T Elcho	
Road	
	County Hwy K
<i>Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory.</i>	

Langlade County also contains a high number of roads where multiple pedestrian crashes occurred from 2000 to 2016. **Table 5** displays roads within Langlade County where there were multiple reported pedestrian crashes. Three municipalities within the County contain at least one road with multiple occurrences of reported pedestrian crashes, with two of these municipalities being the Towns of Elcho and Rolling. The City of Antigo contains the most roads with multiple reported pedestrian crashes with 13.

Table 5: Langlade County Roads with Multiple Pedestrian Crashes	
C Antigo	
Road	
	Superior St (Hwy 45).
	Clermont Ave.
	2nd Ave.
	4th Ave.
	5th Ave.
	6th Ave.
	7th Ave.
	10th Ave.
	Neva Rd (Hwy 45).
	Sunset Dr.
	Edison St.
	Elm St.
	Hudson St.
T Elcho	
Road	
	Hwy 45
T Rolling	
Road	
	Hwy 45
<i>Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory.</i>	

Langlade County had 36 reported bicycle crashes from 2000 to 2016. The County averaged 2.12 bicycle crashes per year from 2000 to 2016. The amount of bicycle crashes per year has been declining, as Langlade County averaged 2.30 bicycle crashes from 2000-2009 and 1.86 bicycle crashes from 2010-2016, as shown in **Figure 9**. When including all drivers, pedestrians, and bicyclists involved in a reported crash, 47 percent of bicycle crashes involved an individual 16 years old or younger, 78 percent of reported bicycle crashes involved an individual between 17 and 64 years old, and 36 percent of reported bicycle crashes involved an individual 65 years old or older. Of the 36 total bicycle crashes in Langlade County, 33 resulted in an injury, one resulted in a fatality, and two resulted in property damage exceeding \$500.

Figure 9: Average Bicycle Crashes Per Year, 2000-2016



Bicycle crashes occurred at a much higher frequency in the City of Antigo than in the rural towns of Langlade County between 2000 and 2016. The City of Antigo had 27 bicycle crashes during this time, while the rural towns accounted for nine bicycle crashes. Village of White Lake did not have any reported bicycle crashes during this time, as shown in [Table 6](#).

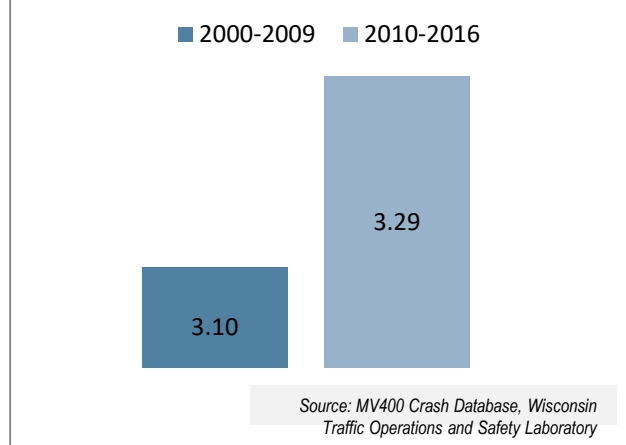
Table 6: Bicycle Crash Data, 2000-2016

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Antigo	2	4	0	2	1	1	3	1	4	1	2	3	1	1	0	0	1	27
Towns	2	0	1	0	1	0	0	0	0	0	1	1	0	0	0	2	1	9
Langlade County	4	4	1	2	2	1	3	1	4	1	3	4	1	1	0	2	2	36

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Langlade County had a total of 54 reported pedestrian crashes from 2000 to 2016. The county averaged 3.18 pedestrian crashes reported per year during this time. Pedestrian crashes have been slightly increasing over time, as Langlade County averaged 3.10 pedestrian crashes from 2000-2009 and 3.29 pedestrian crashes from 2010-2016, as shown in [Figure 10](#). When including all drivers, pedestrians, and bicyclists involved in a reported crash, 28 percent of pedestrian crashes involved an individual 16 years old or younger, 89 percent of reported pedestrian crashes involved an individual between 17 and 64 years old, and 17 percent of reported pedestrian crashes involved an individual 65 years old or older. Age information was withheld for at least one individual in seven crashes. Of the 54 total pedestrian crashes in the county, 48 resulted in an injury, five resulted in fatality, and one resulted in property damage exceeding \$500.

Figure 10: Average Pedestrian Crashes Per Year, 2000-2016



In Langlade County, incorporated municipalities combined for 40 reported pedestrian crashes while rural townships combined for 14 reported pedestrian crashes. The City of Antigo had a total of 39 reported pedestrian crashes between 2000 and 2016, while the Village of White Lake had one reported pedestrian crash, as shown in [Table 7](#).

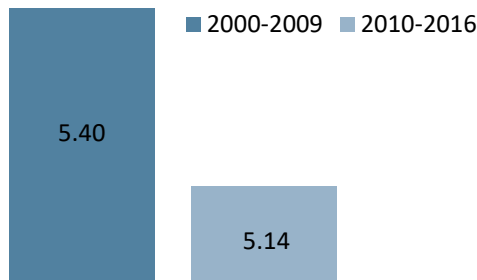
Table 7: Pedestrian Crash Data, 2000-2016

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Antigo	4	1	2	5	4	1	0	0	1	3	4	4	1	0	4	4	1	39
White Lake	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Towns	1	0	1	1	1	1	1	2	0	1	1	2	0	0	1	0	1	14
Langlade County	5	1	3	6	5	2	1	2	2	4	5	6	1	0	5	4	2	54

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Over the course of a 17 year period (2000-2016), Langlade County had a total of 90 crashes that involved either a bicyclist or a pedestrian, averaging 5.29 crashes involving either a bicyclist or pedestrian per year. The average number of crashes per year has slightly decreased over time, as the county averaged 5.40 crashes between 2000 and 2009, and 5.14 crashes between 2010 and 2016, as shown in [Figure II](#). When including all drivers, pedestrians and bicyclists involved in a reported crash, 35.5 percent of all crashes involved an individual 16 years old or younger, 84.4 percent involved an individual between 17 and 64 years of age, and 24.4 percent involved an individual age 65 or older. Age information was not released for seven individuals. Of the 90 crashes in Langlade County involving either a bicyclist or pedestrian, 81 crashes resulted in an injury, six crashes resulted in fatality, and three crashes resulted in property damage exceeding \$500. For fatality locations see Maps 5 and 5a.

Figure 11: Average Pedestrian & Bicycle Crashes Per Year, 2000-2016



Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Of the 90 reported bicycle and pedestrian crashes in Langlade County from 2000 to 2016, 67 crashes occurred in an urban municipality, while 23 occurred in a rural town. With 66 total reported crashes, the City of Antigo alone accounted for 73 percent of all reported crashes in Langlade County. A two-year stretch between 2010 and 2011 accounted for 18 total crashes, an amount that comes out to 20 percent of the County’s total. [Table 8](#) displays a breakdown of bicycle and pedestrian crash data by municipality, see also Maps 5 and 5a.

Table 8: Bike & Pedestrian Crashes, 2000-2016

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Antigo	6	5	2	7	5	2	3	1	5	4	6	7	2	1	4	4	2	66
White Lake	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Towns	3	0	2	1	2	1	1	2	0	1	2	3	0	0	1	2	2	23
Langlade County	9	5	4	8	7	3	4	3	6	5	8	10	2	1	5	6	4	90

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Chapter 3: Plan Vision, Goals, and Objectives

The objective of this plan was to document the activities and facilities needed to enhance bicycle & pedestrian facilities throughout Langlade County. To guide this process, a number of goals were identified that should be considered as the public and private sectors carry on activities that might affect the trails. It is encouraged that these goals be reviewed and consulted when issues that affect the County bicycle and pedestrian network arise; and attempt to resolve these matters in a way that the public's use of these systems are enhanced.

The following goals and objectives regarding Langlade County's bicycle and pedestrian network are an essential part of this plan and should be considered by local, County, State, and Federal agencies when undertaking activities related to this network. These goals and objectives were crafted using input from the Advisory Group on what the body hoped the plan would address. Furthermore, the goals and objectives were further tailored to reflect the priorities of the County while speaking to primary concerns expressed throughout public input.

Goal 1: Ensure key Langlade County routes are bike-friendly and scenic enough for users to travel & enjoy.

Goal 2: Increase the numbers of Langlade County residents and visitors who walk or ride bicycles for recreational and transportation purposes.

Goal 3: Create new (and bolster existing) infrastructure to foster multimodal transportation, and meet demand for convenient and enjoyable bicycle and pedestrian facilities throughout the County.

Goal 4: Provide convenient connections between community destinations throughout the County and City of Antigo for bicyclists and pedestrians.

Goal 5: Provide for long- and short-term action steps to foster a countywide bicycle network.

- *Objective I: Develop a system of bicycle routes throughout the county that connects to destinations both within and surrounding Langlade County.*
- *Objective II: Foster and support the development of additional pedestrian and bicycle facilities to the City of Antigo's existing network.*
- *Objective III: Create a recreation and tourist-based draw to pedestrian and bicycle opportunities*
- *Objective IV: Increase both the safety and the perception of safety of both pedestrian and bicycle infrastructure in urban and rural settings.*
- *Objective V: Whenever possible, pursue off-road opportunities for multimodal travel.*
- *Objective VI: Utilize the scenic nature of public lands, which are particularly abundant*
- *Objective VII: Develop a regimen of increasing bicycle capacity in the County that is also sensitive to public costs.*
- *Objective VIII: Incorporate bicycle and pedestrian planning into other county planning processes, such as capital improvements plans.*
- *Objective IX: Support community activities and events that encourage and celebrate walking and biking, such as bike rodeos.*
- *Objective X: Establish a permanent forum for evaluating bicycling and walking infrastructure across Langlade County – either the County's Forestry & Recreation Committee, or establishing a new committee altogether.*

Chapter 4: Bicycle and Pedestrian Corridor Recommendations

Routing Criteria

NCWRPC, with guidance and input from the Langlade County Forestry & Recreation Committee, Highway Committee & the Advisory Group used the following set of criteria to establish routes:

- Establish Off-Road Routes when possible
- Fulfill corridors and regional connections established in the *North Central Wisconsin Regional Bicycle & Pedestrian Plan 2018*
- Be relatively conservative in major changes to County Highways
- Bolster current routes where Langlade County residents and visitors are already walking and biking
- Establish connections identified through public participation efforts
- Consider the other following factors in developing routes
 - Safety, particularly for families and youth bikers
 - Recreation & Economic Appeal
 - Opportunities for improved wayfinding
 - Consider compatibility of uses (i.e., cars, pedestrians, bicycles, ATVs, etc.)

Facility Types and Design Guidance

This plan makes facilities and policy recommendations intended to improve cycling conditions in Langlade County. The following facility treatments that may be appropriate for communities in Langlade County are provided by WisDOT, the Federal Highway Administration's *Small Town and Rural Multimodal Networks Guide*, the National Association of City Transportation Officials (NACTO)'s *Urban Bikeway Design Guide*, and the North Central Wisconsin Regional Bicycle & Pedestrian Plan's recommendations and guidance for facility improvements. Each treatment is described in detail, with benefits and drawbacks and design considerations described.

Mixed Traffic Facilities

These facilities are most appropriate for accommodating multimodal transportation and motorized vehicles in the same road space. In general, these facility types are most appropriate for low speed, low volume traffic and tend to require generally lower levels of investment.

Yield Roadways

Definition: *Bidirectional motor roadway that utilizes a road diet to slow traffic and create a comfortable space for pedestrian and bicyclists on the road.*

Appropriate Setting: *Low speed, residential areas*

Benefits: *Affordable to construct and maintain. Meshes well with traditional neighborhood quality. Design can easily support on-street parking and minimize storm water runoff.*

Other Considerations: *Road dieting and visuals (like trees) can narrow corridors to lower speeds*

Design Guidelines

- *Width should be between 12 and 20 feet.*
- *When roadway functions as two-lane, single-lane street, pull-out areas should be provided every 200-300 feet with parking openings 16-20 feet wide to accommodate emergency vehicles*



Yield Roadway in Ennis, MT

Source: *FHA Small Town & Rural Multimodal Networks 2016*

Bicycle Boulevards

Definition: *A route through a neighborhood (or to a local destination) on a low stress roadway shared with motor vehicles.*

Appropriate Setting: *Low stress roadways in incorporated or otherwise dense areas. A route to an in-town destination.*

Benefits: *Perfect for small cities and villages (i.e., Antigo & White Lake). Ideal routing measure to in-town destinations or creating continuous paths in communities for alternative transportation.*

Limitations: *May require more pavement to accommodate pavement foot traffic. Not most appropriate for rural settings.*

Design Guidelines

- *Requires pedestrian crossing treatments and traffic calming in order to be fully successful.*
- *Should not cross major roadway if at all possible*
- *Shared roadway between bicycle and motor vehicle should be between 12 and 22 feet*
- *Parking lane should be seven feet in length*
- *Shared Arrow ('Sharrows') markings and route wayfinding are necessary for a successful bicycle boulevard.*



Bike Boulevard in Nampa, ID

Source: National Association of City Transportation Officials

Advisory Shoulders

Definition: Bidirectional motor roadway that visually delineates a designated, non-exclusive space for bicyclists on roads that are otherwise too narrow for bike lanes with hashed lane markings

Appropriate Setting: Rural roads with low traffic volumes, and on some collector routes.

Benefits: “Road Diet” style feature that clearly communicates where users should operate. Affordable, and requires little community investment.

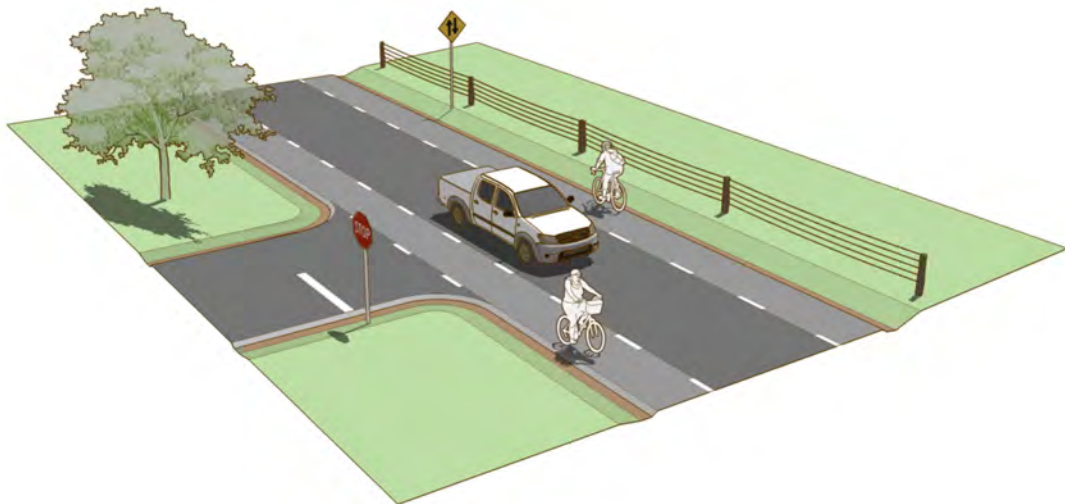
Limitations: May require more pavement to accommodate pavement foot traffic. May require community acclimation.

Design Guidelines

- Advisory Shoulder should be six feet wide, and absolutely no less than four feet wide in circumstances with no curb or gutter
- Center two-way travel lane should be between ten and 18 feet, most preferably between 13.5 and 16 feet.

Advisory Shoulder

Source: Small Town and Rural Design Guide: Facilities for Walking and Biking



Visually Separated Facilities

These facilities are most appropriate for designating specific spaces for multimodal transportation in the same road space as vehicular traffic. These facility types are generally suited to higher traffic-volume roads.

Pedestrian Lanes

Definition: Bidirectional motor roadway that visually delineates an exclusive, designated space for pedestrians.⁴

Appropriate Setting: Local and collector roads in small cities and villages (i.e., Antigo & White Lake)

Benefits: Ideal treatment for providing interim, temporary connectivity in lieu of sidewalks

Limitations: Not a recommended treatment for rural roads. Challenging to remove snow and to sweep. Risky for visually impaired pedestrians. May be perceived as a space for bicycles.

Design Guidelines

- Pedestrian Lane should be between five and eight feet in width
- Special care should be made that the surface of a pedestrian lane be slip resistant and durable
- Appropriate markings and signage highly recommended to clarify intended and exclusive use of lane for pedestrians
- Wisconsin state statute requires pedestrians to walk towards traffic; therefore pedestrian lanes are only a viable option, if provided along each side of the roadway. Pedestrians shouldn't be encouraged to walk with traffic unless there is a physical separation from the travel lanes.

Bike Lanes

Definition: An exclusively designated lane for bicyclists on a roadway.

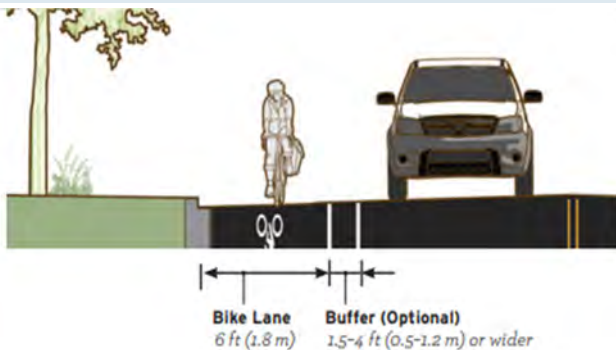
Appropriate Setting: Highly versatile to many settings, but most appropriate on roadways with moderate traffic going moderate speeds

Benefits: Highly versatile to road types and traffic levels. Sends very clear visual cue to drivers. Ideal connector of local bike routes to larger corridors. Widely recognized facility type

Limitations: May provide stress to bicyclists in high traffic situations. Special care needs to be given when bicycle lanes encounter intersections.

Design Guidelines

- Width
 - Preferred width: 5 to 7 feet, absolute minimum of four feet (45 mph or less) or five feet (greater than 45 mph).
 - Bike lanes greater than seven feet wide should be accompanied with a buffer zone to discourage motor vehicle use of bike lane for parking or driving.
- Buffers should be between 1.5 and four feet in width
- It is essential that bike lanes be marked with consistently solid lines.
- Pavement marking are essential, and signage optional but encouraged.



⁴ In Wisconsin, a pedestrian lane must be marked on both sides of the roadway, with pedestrians walking toward vehicular traffic.

Paved Shoulders and Urban Shoulders

- **Definition:** A clearly designated space reserved for bicyclists or pedestrians along a roadway when sidewalks or other facility treatments are for whatever reason unattainable. White edge lines provide visual separation between travel lanes and paved shoulders. Urban shoulders are provided along roadways with curbs.

Appropriate Setting: Collector and arterial roads and highways with moderate to high traffic and truck volumes. Additionally appropriate for longer travels on rural routes. In urban settings, can be used as an alternative to bike lanes. Unlike bike lanes, allowed in areas with minimal, occasional parking.

Benefits: Provides achievable facility to host routes when sidewalks, shared use paths, bike lanes, and other facility types are not possible. Especially useful in accommodating multimodal transportation with higher speeds

Limitations: Requires wider roadways

Design Guidelines

- Widths
 - Minimum width: three to five feet (depending on ADT, bicycle use, % trucks, & % double yellow lines)
 - Desirable width, collector Routes: 3 to 5 feet
 - Desirable width, arterial routes: five to eight feet for rural; five to seven for urban
- Optional but recommended buffer should be between 1.5 to four feet
- Other proven safety measures in the buffer include striping and rumble strips

Climbing Bike Lanes

Definition: A specially designed set of bike lanes on uphill roads or roads too narrow to accommodate bidirectional bicycle lanes

Appropriate Setting: Narrow or hilly road segments

Benefits: Provides for bidirectional bike traffic in special circumstances while minimally interfering with vehicular traffic

Limitations: Facility treatment for very specific circumstances

Design Guidelines

- One dedicated bike lane travels in the uphill direction
- Downhill lane is shared by cars and cyclists
- “Sharrow” markings can be used on downhill lane

Physically Separated Facilities

These facilities operate separately, and at times completely independently of roadways. These facility types are exclusively for multimodal transportation, and interact only indirectly or occasionally with motor vehicles.

Shared Use Paths

Definition: A bidirectional, off-road facility separated from the roadway, that offers low-stress and exclusive experiences for all forms of active transportation.

Appropriate Setting: Outside of built up areas; connector between communities, neighborhoods, etc.

Benefits: Completely independent of motor vehicle transportation network; displays rural character; low-stress; attractive for tourism and economic development.

Design Guidelines

- Width of path itself should be between ten and twelve feet, depending on volume of user traffic.
- Gravel shoulders should be two feet in width.
- Asphalt is most common surface material, although gravel and concrete are also acceptable.

Limitations: Sometimes requires more public resources, community investment; requires major real estate if within new right-of-way, intersections with roadways require special attention.

Sidepaths

Definition: A bidirectional, off-road facility exclusively reserved for multimodal transportation that still runs parallel to the roadway.

Appropriate Setting: Alongside collector and arterial roads and highways; can be suitable for rural and built-up areas alike; should only be placed along roadways with limited number of driveway/roadway access points.

Benefits: Extremely versatile; maintains rural and small town character; a widely preferred facility to a paved shoulder for long and short connections.

Limitations: Sometimes requires more public resources, community investment; intersections with roadways require special attention.

Design Guidelines

- Width of path itself should be between eight and twelve feet, depending on volume of user traffic.
- A minimum of a two foot clearance should be present to signposts or related features.
- Asphalt is most common surface material, although gravel and concrete are also acceptable.
- Sidepaths should be at least five feet removed from the roadway unless a physical barrier is present.

Sidewalks

Definition: A separated facility dedicated to pedestrians that almost always run parallel to roadways

Appropriate Setting: Cities, villages, other built up areas (Antigo, White Lake, Elcho, etc.)

Benefits: Applicable and appropriate to all but the very lowest speed roadways; widely recognized facility type; versatile connector to a wide variety of destinations

Limitations: Can be costly; may be difficult in especially dense areas lacking space

Design Guidelines

- Width of sidewalk should be five to eight feet (depending on location). Six feet is necessary for sidewalks at curb with no terrace area.
- Sidewalks require a frontage zone (space between buildings and sidewalk) and terrace area (space between sidewalk and roadway)
- Frontage zone should be between one and two feet
- Terrace area should be between four and six feet
- See DOT Table 9 on the following page.



Sidewalks separated from the roadway are the preferred accommodation for pedestrians. Sidewalks are a central staple to any bicycle and pedestrian plan, and they provide many benefits including safety, mobility, and healthier communities. Roadways without sidewalks are more than twice as likely to have pedestrian crashes as sites with sidewalks on both sides of the street. Providing walkways for pedestrians dramatically increases how well pedestrians perceive their needs are being met along roadways. The wider the separation between the pedestrian and the roadway is, the more comfortable the pedestrian facility. (U.S. Department of Transportation Federal Highway Administration).

When should sidewalks be installed on both sides of the road?

- New and existing Urban & suburban streets
- New and existing residential, commercial, and industrial arterials
- New residential collectors
- Existing residential collector routes with multifamily buildings

When should sidewalks be installed on one side of the road?

- Existing residential collectors
- Existing residential local roads with more than four units per acre
- New Residential local roads with one to four units an acre

When should shoulders be installed?

- New Local Residential Roads with less than one unit an acre
- Existing suburban and urban streets

Table 9: WisDOT Guidelines for Sidewalk Placement in Urban / Built-Up Areas

Land-Use / Dwelling Unit / Functional Classification	New Urban & Suburban Streets	Existing Urban & Suburban Streets
Commercial & Industrial (All Streets)	Both Sides	Both sides. Every effort should be made to add sidewalks where they do not exist and to complete missing links
Residential (Arterials)	Both Sides	Both Sides
Residential (Collectors)	Both Sides	Multifamily: Both sides Single family: Prefer both sides, require at least one side
Residential (Local Road) More than 4 units/acre	Both sides	Prefer both sides; Require at least one side
Residential (Local Road) 1 – 4 units/acre	Prefer both sides; At least one side required	One side preferred, at least 4 feet
Residential (Local Road) Fewer than 1 unit/acre	One side preferred; Shoulder on both sides	At least 4 feet shoulder on both sides required

Other Facility Improvement Guidelines

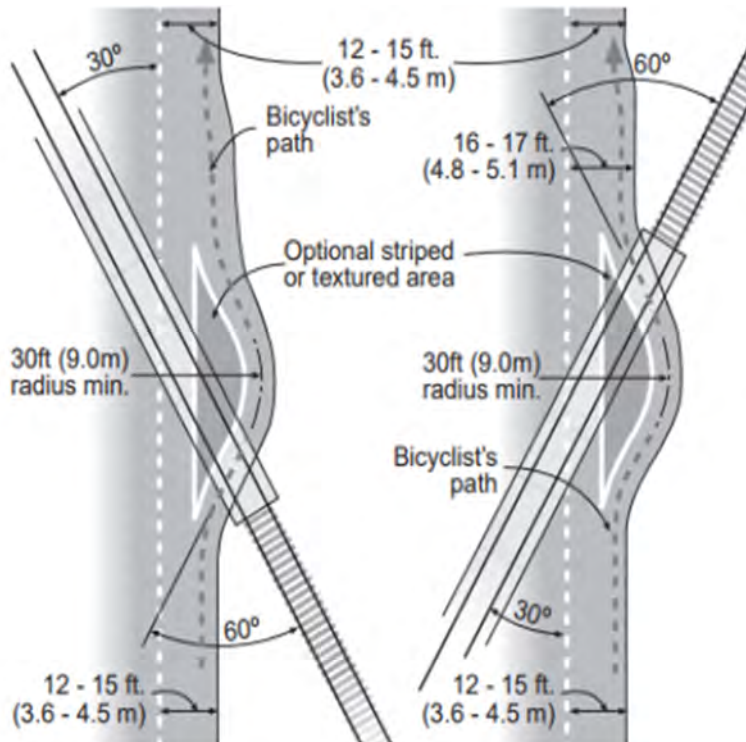
Railroad Crossings

Railroad Crossings should be both straight and run perpendicular to rail tracks. There have been many bicycle crashes that have resulted from improper crossing angles and the smoothness of the crossing itself. The following issues and appropriate treatments for barriers posed by railroad crossings are as follows:

Crossing angles are acutely hazardous when crossing the tracks at 30° or less. Crossing angles between 31° and 60° also would benefit from remedial action. Adjusting the bike lane, or “flairing” the roadway, can mitigate this problem, as illustrated in [Figure 12](#).

Gaps between the roadway and the rail track itself are the primary catalyst of bicycle accidents involving railroad crossings. Fixing gaps on the outside of the rail can be performed easily with rubber or polymer filler. However, the gap on the inside of the rails (Gauge flangeway) must remain open to keep train wheels on the tracks. While this gap cannot be completely reconciled, the risk can be greatly mitigated by using rubber or concrete installations to smoothen the pathway across the track. At the very least, signage should warn bicyclists of the potential risks of an upcoming railroad crossing. Lack of Smoothness can also cause bicycle crashes at railroad crossings regardless of gaps or crossing angles.

Figure 12: Railroad crossing angles



Source: WisDOT, Wisconsin Bicycle Facility Design Handbook, 2004

Bridges

Bridges without proper accommodations for active transportation can be significant barriers for bicyclists and pedestrians hoping to reach point A to point B, either forcing detours or making routes altogether impossible. Federal policy from the United States Department of Transportation highly encourages the accommodation of bicycle and pedestrian needs on bridges during bridge construction and rehabilitation. Title 23 United States Code §217 states the following:

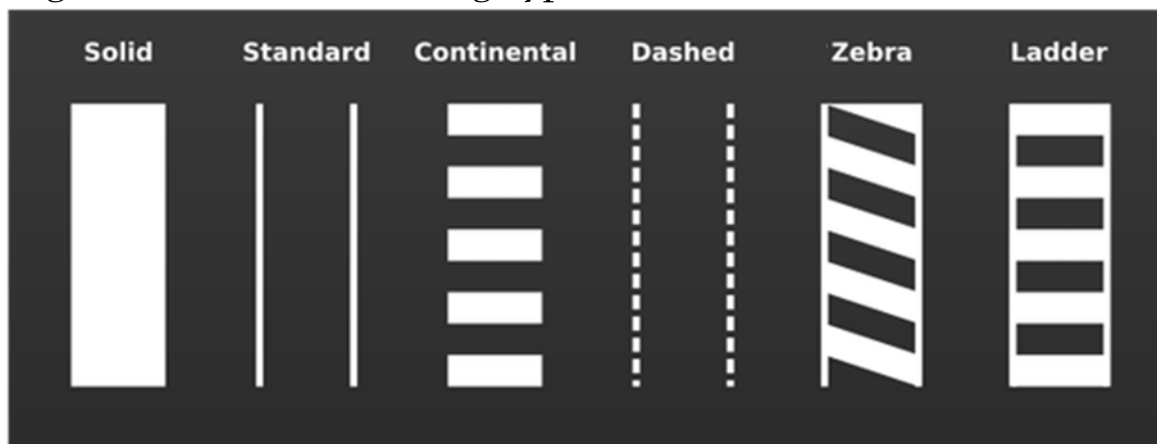
“In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycle are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations.” (United States Department of Transportation)

Providing bicycle and pedestrian accommodation on bridges leads to two direct benefits: 1) connectivity – bridges are often pinch-points in the road network, so well-designed, interconnected bicycle and pedestrian facilities allow all users to safely and conveniently get where they want to go, and 2) safety – implementation of bicycle and pedestrian facilities on bridges often improves the safety of these modes, decreasing the likelihood of collisions or conflicts with other road users. In addition to the direct benefits of safety and connectivity, an infrastructure improvement often leads to increases in bicycling and walking, called induced demand. As a result of this induced demand, communitywide indirect benefits may occur, including: health, sustainability and social equity. Further, accommodating bicycle and pedestrian modes of transportation in bridge replacement or rehabilitation has been proven to result in cost savings versus separate, standalone bicycle and pedestrian facilities.⁵

Paint

Painting clear bicycle lanes as well as shared-lane arrows (“sharrows”) on roads provides clear routes for both cyclists and motorists. Additionally, there are multiple designs for painting a high visibility crosswalk that bring increased visibility and awareness of proper pedestrian pathways. These relatively cost-effective methods can bring a sense of clarity and safety to both drivers and bicyclists utilizing the roads. These crosswalk markings can be found in [Figure 13](#) below.

Figure 13: Crosswalk Marking Types



Source: US FHWA

Signage & Wayfinding

A bicycle wayfinding system consists of comprehensive signing and/or pavement markings to guide bicyclists to their destinations along preferred bicycle routes. Signs are typically placed at decision points along bicycle routes – typically at the intersection of two or more bikeways and at other key locations leading to and along bicycle routes. Signage can indicate distance and/or time estimates for destinations. Wayfinding signage particularly benefits infrequent bicyclists by reducing the barrier to entry of figuring out a route. It also serves to remind motorists that they are likely to encounter bicycle traffic. See Appendix 2 for additional wayfinding resources.

⁵ Jesse Cohn and Elliot Sperling, *Improving Pedestrian and Bicycle Connectivity during Rehabilitation of Existing Bridges*, Fehr & Peers (Pedestrian & Bicycle Information Center: White Paper Series, November 2016). http://www.pedbikeinfo.org/cms/downloads/PBIC_WhitePaper_Bridges.pdf.

Facility Cost Estimates

The Pedestrian & Bicycle Information Center, in conjunction with FHWA and the Robert Wood Johnson Foundation, released *Costs for Pedestrian and Bicycle Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public* in 2013. The report gathers nearly 1,800 observations of infrastructure costs from bids from departments of transportation across the country.

To estimate potential costs for similar facilities in Langlade County, NCWRPC calculated an average (adjusted for inflation) of similar bids per facility type. These averages are then adjusted for the cost of living in north central Wisconsin compared to the nation through the Cost of Living Index (COLI) compiled by the council for Community and Economic Research, a nationally recognized measure used by economists, business and researchers to compare prices in relativity to cost of living for urban areas across America.

The most recent COLI measure for Wausau – the nearest urbanized area – shows that costs are 96.5% of the national average in Wausau. All averages are multiplied by .965 to establish an estimate for facility treatments in Langlade County.

These estimates are intended to provide a “ballpark” estimate for County officials and stakeholders when considering future projects. These estimates should not be used as an assumed price equivalent to that provided in a bid by a company.

Bike & Ped Facility Cost Estimates, 2018

Facility Type	2012 Natl. Average*	Est. Average for Central Wisconsin (2018)**	Unit
“Sharrow” marking	\$180	\$190	1 Sharrow
Bench	\$1,550	\$1,636	1 Bench
Bicycle Lane	\$133,170	\$140,530	1 Mile
Bicycle Rack	\$660	\$697	1 Bike Rack
Boardwalk	\$2,219,470	\$2,342,129	1 Mile
Bollard	\$730	\$770	1 Bollard
Bridge (Pre-fab Steel)	\$206,290	\$217,690	1 Bridge
Bridge (Wooden)	\$124,670	\$131,560	1 Bridge
Curb & Gutter	\$21	\$22	1 Linear Foot
Diverter	\$26,040	\$27,479	1 Diverter

Diverter (Semi-/Partial)	\$15,060	\$15,893	1 Diverter
Fencing	\$130	\$137	1 Linear Foot
Flashing Beacon	\$10,010	\$10,563	1 Flashing Beacon
Gateway Sign	\$340	\$359	1 Sign
Median	\$7.26	\$7.66	1 Square Foot
Multi-Use Trail (Paved)	\$481,140	\$507,730	1 Mile
Multi-Use Trail (Unpaved)	\$121,390	\$128,099	1 Mile
Paved Shoulder (Asphalt)	\$5.56	\$5.86	Per Square Foot
Pedestrian Crossing (Striped)	\$360	\$380	1 Crossing
Pedestrian Railing	\$100	\$105	1 Linear Foot
Raised Crosswalk	\$8,170	\$8,621	1 Raised Crosswalk
Roundabout/Traffic Circle	\$85,370	\$90,088	1 Roundabout/Traffic Circle
Sidewalk (Concrete)	\$32	\$34	1 Linear Foot
Signed Bicycle Route	\$25,070	\$26,455	1 Mile
Signed Bicycle Route with Improvements	\$239,440	\$252,673	1 Mile
Speed Bump	\$1,550	\$1,636	1 Speed Bump
Speed Hump	\$2,640	\$2,786	1 Speed Hump
Speed Table	\$2,400	\$2,532	1 Speed Table
Stop/Yield Sign	\$300	\$317	1 Sign
Street Trees	\$430	\$454	Per Tree
Streetlight	\$4,880	\$5,149	1 Streetlight
Striped Crosswalk	\$7.38	\$7.79	Per Square Foot
Wheelchair Ramp	\$740	\$781	1 Ramp

Source: University of North Carolina Highway Safety Research Center, 2013 (NCWRPC estimates, 2018)

*2012 Dollars, per source paper**National Averages are adjusted to match the Cost of Living Index (COLI) for the Wausau Urban Area during the 2010 Census, which assumes overall costs to be 96.5% of the national average.

Corridor Recommendations

The following corridors were identified as potential candidates for a Langlade County Walking and Biking Trail System utilizing the established routing criteria and the facility types and design guidance. The County envisions a club (bike club, group or other organization) driven system like the way ATV and snowmobile trails currently function. Projects within a proposed corridor would be considered on a case by case basis as clubs or other organizations take responsibility for sponsoring the funding, signage and maintenance.

The corridor network for the County is illustrated in Map 6. Route numbers correlate to the map for ease of reference. The proposed corridors are outlined in the following tables with discussion on a variety of factors including:

- Route Justification
- Existing or proposed segments
- On or off road segments
- Surface type and what uses for year-round use
- Key connections
- Suitability for bicycles and pedestrians
- Potential Accommodations & Improvements
- Time Frame
 - Short-term: 1-5 years
 - Mid-term: 6-10 years
 - Long-term: 10+ year

1. Corridor between Elcho and Antigo (and alternatives)

Description & Justification: Both public input and suggestions from the Advisory Group emphasized the potential for a scenic, off-road path between Antigo and Elcho along old rail-bed that runs mostly uninterrupted through western Langlade County between the two communities. Besides providing for a crucial connection between the two communities identified both in this planning process and in the RBPP 2018, an off-road path provides a prime attraction for visitors of Langlade County to ride their bicycles in a low-stress and scenic environment. While some of this rail bed is under public ownership, most is held by private entities, meaning a combination of path rerouting and negotiating with individual landowners for easements would be required to make this path a reality. There is also the possibility of extending the path along the rail bed to make a connection with Monico in Oneida County.

Alternative On-road Routing as indicated may be necessary to accommodate routing between the two communities while the off-road trail is being planned and constructed. Therefore, the County Highways indicated as alternative routes, while all have a good suitability according to WisDOT, could benefit from painted sharrows and signage to alert cars to accommodate bike traffic.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed (with potential portion of existing route)	Off Road (with potential portions of on-road options)	Compacted Gravel	Antigo – Elcho Elcho – Monico	Moderate*	Land acquisition via cooperation with private landowners and municipalities. Bridge crossings may be necessary to account for creeks	Long-Term

Responsible Parties: Langlade County Forestry & Recreation; Langlade County Highway; City of Antigo; Towns of Antigo, Neva, Upham & Elcho; Private land owners

*This represents NCWRPC staff analysis and not an official rating from WisDOT

2. Corridor between Antigo & White Lake

Description & Justification: Both public input and suggestions from the Advisory Group emphasized the potential for an improved and direct connection between the two incorporated municipalities of Langlade County, a corridor also identified in the RBPP 2018. The corridor is identified as in overall “good” condition, meaning major facilities improvements are not recommended here in the immediate future. However, as public and Advisory Group input both indicate that many consider the current corridors to be insufficient, signage and pavement markings are highly recommended – especially if this corridor is to be palatable to visitors.

This corridor also provides a connection of the Gartzke Flowage, a popular Langlade County destination, to the proposed bike network.

Existing or Proposed?	On or Off Road?	Surface Types and Season (<i>if applicable</i>)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing	On-Road	Pavement, year-round	Antigo – White Lake Antigo – Gartzke Flowage White Lake – Gartzke Flowage	Good	Wayfinding signage on County and local roads Encourage DOT to install rumble strips on STH 64 paved shoulder to provide barrier between car and cyclist. - DOT typically only places rumble strips where there are run-off-the-road safety issues. - Existing paved shoulders along STH 64 between Polar and White Lake are 3 feet wide. For 3 feet wide shoulders, the rumble strips would have to be placed on the edge lines, which would cause more vehicle noise than the standard placement of 6 inches from the edge lines. Encourage WisDOT to install wider paved shoulders per DOT guidelines upon the next round of general construction for the highway. Signage should clearly indicate turnoff for Gartzke	Mid-term

Responsible Parties: WisDOT; City of Antigo; White Lake; Towns of Wolf River, Polar & Antigo

3. Corridor between White Lake & Kettlebowl

Description & Justification: The Kettlebowl Ski Area is a popular destination in Langlade County that was indicated as a key biking destination. Similarly, the Langlade County Outdoor Recreation Plan identified a County priority to “Create a Trail using fire lanes on County Forest Lands from Parrish to Summit Lake to Jack Lake to the Kettlebowl Area to White Lake.” While fire lanes are already developed, much of this route is reported to be undeveloped gravel single track, suggesting rehabilitation would be necessary, preferably compacted gravel.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	Off-road/Fire Lane	Compacted Gravel (all but Winter)	White Lake – Kettlebowl Area	Poor*	Resurfacing of fire lanes to accommodate bicycle traffic, and establishment of bicycle-only connectors between fire lanes when appropriate. Some areas of this trail represent virtually undeveloped single track, and will need rehabilitation to accommodate bicycle traffic. Wayfinding signage	Mid-term

Responsible Parties: Langlade County Forestry & Recreation; Village of White Lake; Towns of Wolf River, Evergreen & Langlade

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

4. Corridor between Kettlebowl & Jack Lake

Description & Justification: The Kettlebowl Ski Area and Jack Lake are popular destinations in Langlade County that were indicated as key biking destinations. Similarly, the Langlade County Outdoor Recreation Plan identified a County priority to “Create a Trail using fire lanes on County Forest Lands from Parrish to Summit Lake to Jack Lake to the Kettlebowl Area to White Lake.” Portions of this corridor are undeveloped single/double track gravel that would need to be compacted to be rideable for bicycles.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	Off-road/Fire Lane	Compacted Gravel (all but Winter)	Kettlebowl & Jack Lake	Moderate*	Wayfinding signage is a priority along this corridor. Rehabilitation of portions of the trail with compacted gravel for a smooth overall, off-road-style surface.	Mid-term

Responsible Parties: Langlade County Forestry & Recreation; Towns of Langlade, Price, Ainsworth & Upham

*This represents NCWRPC staff analysis and not an official rating from WisDOT

5. Corridor between Jack Lake & Camp Lyle

Description & Justification: Camp Lyle and Jack Lake are popular destinations in Langlade County that were indicated as key biking destinations. Similarly, the Langlade County Outdoor Recreation Plan identified a County priority to “Create a Trail using fire lanes on County Forest Lands from Parrish to Summit Lake to Jack Lake to the Kettlebowl Area to White Lake.” Portions of this corridor are undeveloped single/double track gravel that would need to be compacted to be rideable for bicycles. While traffic volumes along this corridor are not high, wayfinding signage is still recommended due to the scenic nature of the route, and the demonstrated popularity of the two destinations.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing	On-road/Fire Lane	Compacted Gravel	Jack Lake & Camp Lyle	Moderate*	Install wayfinding signage Compact gravel on fire lane routes	Short-Term

Responsible Parties: Langlade County Forestry & Recreation; Langlade County Highway, Towns of Upham & Elcho

*This represents NCWRPC staff analysis and not an official rating from WisDOT

6. Corridor between Camp Lyle & Elcho

Description & Justification: Camp Lyle is a popular destination in Langlade County that was indicated as a key biking destinations. Similarly, the Langlade County Outdoor Recreation Plan identified a County priority to “Create a Trail using fire lanes on County Forest Lands from Parrish to Summit Lake to Jack Lake to the Kettlebowl Area to White Lake.” This corridor also serves as part of a greater network of trails and roads between Elcho and White Lake, a corridor identified in the RBPP. CTH K is rated as in poor condition for bicycling along this stretch, and is also a destination where many bicyclists would like to ride. As such, this stretch of road is a prime candidate for paved shoulder installation upon future construction of the highway. Signage should also be installed as part of the greater combination of scenic corridors that lead to the County Forest.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	Pavement, Year Round	Camp Lyle – Elcho	Poor**	Install paved shoulders along CTH K segment to increase the suitability to good or at least moderate. Three-foot paved shoulders may be enough to increase the highway to good.	Mid-Term

Responsible Parties: Langlade County Highway; Langlade County Forestry & Recreation; Town of Elcho

***This represents NCWRPC staff analysis and not an official rating from WisDOT. However, CTH K is rated as poor by WisDOT.*

7. Corridor between Antigo & Jack Lake

Description & Justification: Due to the current popularity of this stretch of CTH J and the Jack Lake Campground among bicyclists, paved shoulders connecting the fire lanes in the County forest to the potential future Antigo-Elcho trail would be well utilized in the future. However, this rehabilitation would be most appropriate to connect existing rehabilitated corridors connecting Jack Lake and Camp Lyle, and Antigo and Elcho.

In the short-term, signage promoting access to the Campground would be an achievable and useful implementation goal.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	N/A	Antigo & Jack Lake Elcho & Jack Lake	Moderate*	Paved shoulders, contingent on connecting rehabilitated fire lanes and Antigo-Elcho corridor. Paved shoulders	Long-term (paved shoulders) Short-Term (signage)

					along CTH J to increase the suitability to good if feasible	
					Wayfinding signage	

Responsible Parties: Langlade County Forestry & Recreation; Langlade County Highway; Town of Upham

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

8. White Lake Loop

Description & Justification: The advisory group recommended this scenic loop south of White Lake to be a signed, on-road, recreational bike route, while some in the public comments received indicate that this route is already used by bikers. Due to a manageable level of traffic volumes, using intensive signage to make this a designated bike route would be sufficient

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	N/A	White Lake Other key corridors	Good*	Develop a sign system for a "White Lake Loop" Route	Short-term

Responsible Parties: Langlade County Forestry & Recreation; Langlade County Highway; Village of White Lake; Towns of Wolf River, Evergreen & Langlade

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

9. Western Langlade Loop

Description & Justification: This loop utilizing CTHs J, H, & STH 64 are rated as good condition for bicycling by WisDOT, presumably due to low traffic volumes. They are also identified as existing routes in the 2018 RBPP. Warning signage alerting motor vehicles of bicycles is an appropriate short-term strategy.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road**	N/A	Antigo – Merrill Elcho – Underdown Recreation Area	Good*	Reevaluation in 10 years Warning signage for drivers	Long-term (reevaluation) Short-term (signage)

Responsible Parties: Langlade County Highway; Langlade County Forestry & Recreation; Towns of Upham, Elcho, Summit, Peck & Vilas

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

***Partially off-road if the Antigo-Elcho off-road trail becomes reality, see Corridor 1 above*

10. Rolling Loop

Description & Justification: Stretches of this proposed route are already utilized by bicyclists, particularly those participating in the community’s “Women’s Rides” around the City. The route provides a scenic experience through the Towns of Rolling and Norwood. Members of the advisory group and public input indicate that this route is relatively hospitable for bicyclists, and that these would be appropriate for a designated, signed, on-road, recreational bicycle route. Agreement and cooperation of the Towns is needed for official designation.

If agreeable, Towns could consider applying pavement markings such as sharrows and lane marking where appropriate to boost safety on these routes for bicyclists.

Additionally, this would also serve to fulfill a connection between Counties as illustrated in the *Shawano County Bicycle & Pedestrian Master Plan* written in 2013.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing/Proposed	On-road	N/A	Antigo – Wittenberg	Good*	Wayfinding signage designating route Lane markings (Sharrows, etc.)	Short-Term (signage) Mid-term (lane-markings)

Responsible Parties: Langlade County Highway; Shawano County; City of Antigo; Towns of Norwood & Rolling

*This represents NCWRPC staff analysis and not an official rating from WisDOT

11. Corridor between Elcho & Tomahawk

Description & Justification: The corridor from Elcho to Tomahawk follows Moccasin Lake Road and utilizes the Lily Mill Fire Lane before travelling on CTH Q and STH 17. This corridor also provides access to the popular Moccasin Lake Cross Country Ski Trail and other off road pedestrian and bicycle routes already utilized for recreation purposes. Moccasin Lake Road itself is widely traveled by Elcho area bicyclists, as it provides the most direct route both to Moccasin Lake and towards Rhinelander. Depending on the resources available to Elcho, a paved shoulder along this route or an off-road sidepath or compacted gravel road could be merited to serve this particular corridor. Signage should promote directions to Moccasin Lake as these trails are an already existing destination for recreational bicyclists. Signage should also point toward Rhinelander and Tomahawk.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing/Proposed	On-road/Fire lane	Compacted gravel on fire lane	Elcho – Tomahawk Elcho - Rhinelander Elcho –	Poor* (Note: WisDOT suitability ratings for STH 17 &	Determine feasibility of improvements to Moccasin Lake Road to increase the bicycle suitability	Short-term

			Moccasin Lake Cross Country Ski Trail and associated off-road paths	CTH Q are good	conditions Implementation of most feasible strategy Promotional signage for Moccasin Lake trails	Mid-term Short-term
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Responsible Parties: WisDOT; Langlade County Forestry & Recreation; Langlade County Highway; Towns of Elcho & Parrish; Oneida County; Lincoln County

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

12. Corridor between Elcho & Monico

Description & Justification: This corridor utilizes the aforementioned corridor between Elcho and Camp Robert S. Lyle Scout Reservation, and then continues north on Clear Lake Road and CTH Z north toward Oneida County. This route merits signage and sharrows to accommodate the corridor elaborated in the RBPP.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	n/a	Elcho – Monico Camp Lyle – Monico	Poor*	Sharrows or signage	Mid-term

Responsible Parties: Wisconsin DNR; Langlade County Forestry & Recreation; Langlade County Highway; Town of Elcho; Oneida County

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

13. Corridor between Elcho & Crandon

Description & Justification: From Camp Lyle the corridor continues on CTHs U and A with some potential off-road, to avoid CTH TT which is rated poor suitability for bikes by WisDOT, until reaching the Wolf River State Trail, which continues north into Forest County. While CTH A is identified as a stretch of road by the Advisory Group that would greatly benefit from a paved shoulder, given cost considerations, the County Highway department should be given leeway to determine a timeframe for these improvements. Part of off-road segment requires working with State. If State is receptive, there may be possibility to extend off-road further through Wolf River State Fishery Area, rather than utilizing parts of CTHs T and U. Also note: other potential alternative routings may be explored in the development of this corridor route. Detailed in the next table, this portion of the Wolf River State Trail needs to be rehabilitated with more compacted gravel in order to more appropriately sustain bicycle traffic.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On/off-road	Compacted	Camp Lyle –	Moderate*	Off-road segment	Mid/Long-

		gravel (Wolf River State Trail)	Crandon Elcho - Crandon		to avoid TT – transition from on-road to off-road segments needs to be worked out. Possible paved shoulders on A to address concerns of local bicyclists. Rehabilitate Wolf River State Trail to accommodate bicyclists	term Mid-term
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Responsible Parties: Langlade County Highway; WisDOT; Wisconsin DNR; Towns of Elcho, Ainsworth & Langlade

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

14. Corridor between White Lake & Crandon

Description & Justification: The corridor between White Lake and Crandon is theoretically already completed by the off-road Wolf River State Trail. However, the surfacing of the trail is inhospitable to bicyclists at points, creating obstacles for an otherwise extremely popular off-road trail between the two communities. Priority should be given to this corridor, as resurfacing of the state trail will require coordination with various off-road users (ATV groups, bike groups, etc.) and coordination with the Wisconsin DNR.

A less ideal but viable alternative is to work with WisDOT in expanding paved shoulders along STHs 64, 52 and 55.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing	Off-road	Compacted Gravel	White Lake - Crandon	Moderate*	Establish a detailed plan to resurface the Wolf River State Trail to better accommodate cyclists Implement resurfacing of the Wolf River State Trail	Short-term Long-term

Responsible Parties: Wisconsin DNR; WisDOT; Village of White Lake; Towns of Wolf River & Langlade; Forest County

**This represents NCWRPC staff analysis and not an official rating from WisDOT*

15. Corridor between White Lake & Shawano/Mountain

Description & Justification: CTHs M and WW are not extensively travelled, but long term coordination with governments and groups within Shawano and Oconto Counties would be needed to implement a trans-county scenic route from White Lake and Shawano and Mountain. A plan of action should be formulated between these communities before specific implementation strategies are devised.

Additionally, wayfinding signage between White Lake and Nicolet Roche is an achievable strategy in the short-term that would connect popular destinations.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	N/A	White Lake – Shawano	Good	Wayfinding, promotional signage between White Lake and Nicolet Roche	Short-Term
			White Lake – Mountain			
			White Lake – Nicolet Roche			Mid-term
			White Lake – Boulder Lake (Oconto Co.)			

Responsible Parties: Langlade County Highway; Village of White Lake; Town of Wolf River; Shawano & Oconto Counties

16. Corridor between Antigo & Dells of the Eau Claire County Park

Description & Justification: The Dells of the Eau Claire County Park in Marathon County was cited as a popular destination in public participation for the 2018 RBPP, and revealed a specific request to see a connection between Antigo and the park – thus, this was designated as a corridor in the RBPP. The route would follow CTH X into Marathon County, relying primarily on heavy signage to facilitate this travel. Cooperation with Marathon County is highly recommended in order to implement this corridor.

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Proposed	On-road	N/A	Antigo – Marathon County	Good	Wayfinding signs for bicycles and motor vehicles	Short-Term

Responsible Parties: WisDOT; Langlade County Highway Department; City of Antigo; Town of Ackley, Rolling & Antigo; Marathon County

17. Bogus-Forest-Bass Lake Loop

Description & Justification: A recreational loop utilizing local roads in the Town of Upham along Bogus Road, Bass Lake Road, and Forest Road was identified by the Advisory Group as a particularly scenic route for seasoned bicyclists where wayfinding signage would be very much appreciated by the Community. This would be one of the more easily implemented recommendations within this plan

Existing or Proposed?	On or Off Road?	Surface Types and Season (if applicable)	Key Connections	Current Suitability	Accommodations or Improvements	Time Frame
Existing	On-road	Pavement, Year Round	N/A	Moderate	Wayfinding signs for bicycles and motor vehicles	Short-Term

Responsible Parties: Town of Upham

Other Infrastructure and Non-infrastructure Recommendations

A primary goal of the Langlade County Bicycle & Pedestrian Plan is to create an interconnected, usable, and safe bicycling network for Langlade County residents and visitors. Survey results for the plan demonstrate that both the lack of safety and the lack of perception of safe conditions, are a major barrier to more bicycling and walking throughout the County.

Recommendation 1: Rehabilitate sidewalks and improve lighting in central Elcho around CTH K and USH 45

- **Description:** *While central Elcho does have sidewalks in proximity to the High School that connects to the residential grid, these sidewalks are often noted as in great need of rehabilitation. Conducting intensive maintenance on these sidewalks, and installing new sidewalks between existing sidewalks, would be achievable measures to create a more interconnected downtown Elcho.*

Elcho residents have also indicated that poor lighting is a significant issue for crossing USH 45 in central Elcho as well. Installing street lighting would greatly increase both safety and the perception of safety for Elcho pedestrians during the evening and night hours.

- **Responsible parties:** *Town of Elcho*
- **Timeline:** *Short-Term*

Recommendation 2: Recommended areas for signaled crossings in Antigo and Elcho

Recommendation 2a: Install enhanced pedestrian traffic crossings in the City of Antigo at key locations along USH 45 and STH 64

- **Description:** *The following intersections in the City of Antigo along USH 45 would benefit from additional installations to foster pedestrian and bicycle traffic. As these intersections very often involve federal and state highways, WisDOT would be an important player in any decision involving improving an intersection*
 - **USH 45 & 4th Avenue:** *Identified as a key area for intersection improvement in the City’s Bike Route system.*
 - **USH 45 & 10th Avenue:** *While the intersection already has a painted crosswalk, both traffic volumes and advisory group input indicate that a more controlled intersection – such as a flashing beacon crosswalk – would be very beneficial in fostering a safe pedestrian and bicycle network.*
 - **Pioneer Road and STH 64:** *This intersection was identified by the Advisory Group as a travelled intersection by cyclists and pedestrians where a controlled signal would greatly increase both safety and the perception of safety*
 - **USH 45 & STH 64:** *This intersection would need a controlled crosswalk upon extension of the sidewalk network to the north side*
- **Timeline:** *Mid-Term*
- **Responsible Parties:** *City of Antigo, Town of Antigo, WisDOT*

Recommendation 2b: Work in conjunction with WisDOT to install traffic crossings at the intersection of USH 45 and Owano Street, and USH 45 & Elcho Street.

- **Description:** *As Elcho is a township, WisDOT holds complete jurisdiction over the portion of USH 45 that crosses through the township. As such, Elcho would need to obtain a permit from WisDOT to install a major pedestrian crossing of this kind. Both of these suggested crossings correspond with frequent pedestrian traffic to and from Elcho High School. These crossings would significantly enhance the safety of Elcho children and families throughout the year, especially given the school’s proximity to a major highway.*
- **Responsible Parties:** *Town of Elcho, WisDOT, Elcho School District*
- **Timeline:** *Short-Term*

Recommendation 3: Actively support efforts to acquire property or donated land to complete connections of the Ice Age Trail in Langlade County

- **Description:** *The Ice Age Trail Alliance – Langlade County chapter has long been active in acquiring property through easements and other measures to create a contiguous path throughout the county, connecting the trail to other segments to its north and south.*

Langlade County should continue to support the Ice Age Trail Alliance’s efforts to create a contiguous trail through County lands. Moreover, the County should also facilitate dialogue, when appropriate, between private property owners and the Ice Age Trail Alliance. In the immediate future, key areas of concentration should include a connection on the Knights Templar Club property in the Town of Upham, and property in the Town of Parrish to the immediate west of Pine road and due north of the Prairie River Fishery Area. Longer range goals include the eventual off-road connection with Marathon County.

- **Responsible parties:** Ice Age Trail Alliance; Langlade County Forestry & Recreation; Private Property Owners, Wisconsin DNR, Town of Upham, Town of Parrish
- **Timeline:** Long-Term

Recommendation 4: Develop a formalized Bicycle Map for Langlade County residents and visitors alike

- **Description:** As this plan is implemented and routes become known and travelled by Langlade County residents, having a formal resource to guide visitors and seasonal residents of the county toward new routes both on-road and off-road would be especially effective. This map should be developed in consultation with municipalities and silent sports groups throughout the County and be made available on the local government web pages for viewing and downloading. The City of Antigo's current bicycle route map would be a good "starting point" for such a resource.
- **Responsible parties:** Langlade County Economic Development Corporation; North Central Wisconsin Regional Planning Commission; Langlade County Forestry & Recreation Department; Langlade County municipalities
- **Timeline:** Mid-Term

Recommendation 5: Install and/or encourage bike racks at key locations in the City of Antigo, and at major destinations throughout the County.

- **Description:** Having a designated facility to store a bike while at a location can encourage bicycle ridership. Members of the public and the advisory group indicated that having available bike parking – particularly in downtown Antigo – would be an appreciated resource. Bike racks can be made possible both through public investment or by community sponsorship, much like the case with the City's signed bike route system. While locations such as the Antigo Palace Twin Theater and the Fairgrounds were listed as key candidates for bike racks, other natural destinations throughout the city along bike routes should also be considered.
- **Responsible parties:** City of Antigo, Antigo Community, Langlade County, Antigo/Langlade Chamber of Commerce
- **Timeline:** Short-term

Recommendation 6: Provide a safe pedestrian network connecting residential areas within Antigo to the North Side shopping district

- **Description:** Currently, Antigo sidewalks extend to State Hwy 52 and 64. There is no pedestrian connection on the east side of Hwy 45. Extending the sidewalk network up to shops along Century Avenue would significantly enhance the overall connectivity throughout the City. Key sidewalk extensions should connect the existing network from North Avenue to Century Avenue, along USH 45 and along Clermont Avenue.
 - Additionally, opportunities exist to extend the pedestrian network from the Langlade County Fairgrounds up to the Century Avenue commercial district.
- **Responsible parties:** City of Antigo, WisDOT
- **Timeline:** Mid-Term

Recommendation 7: Increase connectivity of the White Lake pedestrian network

- **Description:** *While sidewalks exist within the Village of White Lake, they are – as noted in their comprehensive plan - relatively unconnected. However, extending the sidewalk network two blocks along Bissell Street or along another street in downtown White Lake would create a consistent network of sidewalks that connects to the Wolf River State Trail.*
- **Responsible parties:** *Village of White Lake*
- **Timeline:** *Short-Term*

Recommendation 8: Increase signage along school routes in Antigo

- **Description:** *5th and 7th Avenues in the City of Antigo are along the city bike route system, and are also primary multimodal corridors in regards to the Middle School and West Elementary School. Additional signage and/or speed enforcement to accommodate children and families bike on this route could increase the overall safety of the network.*
- **Responsible parties:** *City of Antigo, Antigo School District*
- **Timeline:** *Short-Term*

Recommendation 9: Explore possibility and feasibility of extending the Springbrook Trail south along the Creek.

- **Description:** *While more immediate off-road opportunities exist within the scope of this plan, there is great transportation and recreational potential in expanding the Springbrook trail along the creek heading south through the County. This possibility was raised in the abstract in the public engagement process, and was very popularly received. As the City and County evaluate long-term plans for pedestrian and bicycle transportation, studying the feasibility of such a trail should be a priority in the long-term.*
- **Responsible parties:** *City of Antigo, Langlade County*
- **Timeline:** *Long-Term*

Recommendation 10: Develop signage for Langlade County Bike routes akin to, but distinctly different, from the City of Antigo's Bike Route Signs

- **Description:** *The routes in this plan should be clearly signed to accommodate wayfinding needs for cyclists commuting throughout the County. The Antigo signed bike route system provides a good template on establishing a network-wide signage system. However, these signs should be distinct from the existing City routes – especially within the City Limits. Priority should be given to more distinctly recreational routes, most particularly the following: 1) the Bogus Road loop in Upham, 2) the loop in the Town of Rolling and the Town of Norwood, 3) the White Lake Loop, and 4) the County Forest corridor connecting Elcho to White Lake.*
- **Responsible parties:** *Langlade County, City of Antigo, Langlade County townships, Langlade County businesses and community, Langlade County Economic Development Corporation, Antigo/Langlade Chamber of Commerce*
- **Timeline:** *Mid-Term*

Recommendation 11: Provide educational events for children such as bicycle rodeos to promote bicycle ridership and bicycle safety

- **Description:** *School Districts, police departments and bicycle clubs across Wisconsin have had success in hosting “bicycle rodeos” for children – fun and informative clinics on proper bicycle ridership and bicycle safety measures. These events are a proven way to bring communities together on the important topic of bicycle safety for future generations and families.*
- **Responsible parties:** *Antigo Police Department, area bicycle clubs, Langlade County Sheriff, Antigo School District, Elcho School District, White Lake School District*
- **Timeline:** *Mid-term*

Recommendation 12: Provide biking education and safety guidance on the Langlade County website, and consider having other municipalities host similar information on their webpages

- **Description:** *Agencies such as WisDOT’s Bureau of Transportation Safety and advocacy groups such as the Wisconsin Bicycle Federation have made bicycle and pedestrian safety and legal guidance accessible to readers of all skill levels. Making these resources available in public venues of information – particularly websites and public libraries – would be an effective and affordable method of distributing vital information to interested bikers.*
- **Responsible parties:** *Antigo Public Library, Langlade County Municipalities, Langlade County*
- **Timeline:** *Short-term*

Recommendation 13: Enforce speed limits in areas with particularly high bicycle and pedestrian traffic

- **Description:** *Speeding creates more dangerous conditions on roads overall, but also poses exponentially more dangerous conditions for individuals and families walking or riding their bicycles along pedestrian shoulders, intersection, roadways without separated facilities, or county highways. Enforcement of posted speed limits by law enforcement around schools and key portions of the county with high rates of crashes involving bicyclists and pedestrians would create a safer environment for bicyclists, pedestrians, and motorists alike.*
- **Responsible parties:** *Langlade County Sheriff, Antigo Police Department*
- **Timeline:** *Short-term*

Recommendation 14: Enforce snow and ice removal ordinances for sidewalks, and maintain timely snow clearance for travelled routes

- **Description:** *The survey indicated that more comprehensive snow plowing services would be an encouraging factor for more Langlade County residents to ride their bicycle. Sustaining and improving these services on target County Highways would create a more hospitable year-round climate for bicycling. Sidewalk ordinances in those communities where applicable should also be diligently enforced in the wintertime, as an icy sidewalk is dangerous for pedestrians.*
- **Responsible parties:** *Langlade County Highway, City of Antigo, Village of White Lake, Town of Elcho*
- **Timeline:** *Short-term*

Recommendation 15: Sustain dialogue with the Langlade County Highway Department and regularly evaluate where paved shoulders may be appropriate in new construction

- **Description:** Road maintenance is an expensive endeavor for the county, and installing paved shoulders on county highways could add additional costs to the responsibility of the County Highway Department. However, studies and past projects have shown that constructing paved shoulders on county highways in conjunction with previously scheduled construction in County Plans. Constant coordination between municipalities and stakeholders and other county departments with the Highway Department could maximize the miles of bicycle facilities along county roads while minimizing the potential costs undertaken by the County and by Langlade County taxpayers.
- **Responsible parties:** Langlade County Highway, City of Antigo, Langlade County Forestry & Recreation, Langlade County municipalities
- **Timeline:** Long-term

Recommendation 16: Begin active planning and dialogue to establish an off-road trail between Elcho and Antigo

- **Description:** Any completion of the Antigo-Elcho off-road corridor would be an achievable, multi-year project that would require extensive planning in advance of construction. Langlade County should develop conceptual corridors and engage in dialogue with any potential private landowners whose properties may lie in the path of an eventual trail. Planning a successful trail would also require coordination and dialogue with the Wisconsin DNR and WisDOT.
- **Responsible parties:** Langlade County Forestry & Recreation, Town of Elcho, Town of Upham, Town of Neva, Town of Antigo, City of Antigo, private land-owners, WisDOT, Wisconsin DNR.
- **Timeline:** Short-Term

Recommendation 17: Implement the Safe Routes to School Plans in Antigo, Elcho and White Lake

- **Description:** Safe Routes to School (SRTS) programs are an opportunity to make walking and bicycling to school safer for children in grades K-8, and to increase the number of families who encourage their children to walk and bike. Antigo has already developed a SRTS plan; Elcho and White Lake have initiated the SRTS planning process, and are aiming to have them completed by 2020.
- **Responsible parties:** City of Antigo, Village of White Lake, Town of Elcho, Antigo School District, Elcho School District, White Lake School District
- **Timeline:** Short-Term



Chapter 5: Plan Implementation and Conclusion

In order to keep the Langlade County Bicycle and Pedestrian Plan relevant and timely to the needs of the County, County staff, committees and other stakeholders should periodically review the plan to evaluate whether the county is meeting the goals and objectives stated in the plan.

It is important to note that implementation, as with many public works projects, is heavily contingent on acquisition of right-of-way and accessibility of funding sources. Funding assistance for major projects would most likely come from WisDOT or the Wisconsin Department of Natural Resources (Wisconsin DNR). Relevant programs to fund the recommendations illustrated in this plan are listed below.

Funding Sources

Transportation Alternatives Program (TAP)

TAP is a legislative program authorized by Congress through the Fixing America's Surface Transportation (FAST) Act signed into law in 2015. Safe Routes to School Programs, Bicycle & Pedestrian Facilities programs, and transportation enhancements are all TAP-eligible projects, including this plan. WisDOT facilitates TAP program and funding management

During the last TAP cycle, WisDOT eliminated the \$300,000 minimum amount for infrastructure projects; however, the DOT still suggest infrastructure projects in the \$300,000 to \$1 million range. \$50,000 is still the minimum amount for non-infrastructure projects.

Recreation Trails Program (RTP)

The Wisconsin DNR administers this federal program to provide reimbursement for motorized and non-motorized trail development and maintenance. Governments are eligible for up to 50 percent reimbursement for trail development through this program. Funding is allocated through the following ratio of uses: 30 percent non-motorized, 30 percent motorized, and 40 percent diversified.⁶ Applications are due May 1st each year, and counties, local governments, state agencies and school districts can all apply for this funding source.

Land & Water Conservation Fund (LWCF) Grants – the State Side

Administered by the State and Local Assistance Programs Division of the National Parks Service, the LWCF Grants program provides local and state governments matching grants to acquire and develop public outdoor recreation areas, which could include some pedestrian and bicycle trails and facilities. Historically, grants have funded either the acquisition of park and recreation lands, or “combination” projects to both acquire land and kick off recreation development for a project.

⁶ '40 percent diversified' means that 40 percent of funds will go to a) diverse non-motorized uses; b) diverse motorized uses; and c) diverse project hosting both motorized and non-motorized uses.

Doppelt Family Trail Development Fund

Launched in 2015, the Rails-to-Trails Conservancy's Trail Development Fund distributes about \$85,000 a year to qualifying projects to bolster the conversion of old rail lines to bicycle paths. The RTC Conservancy's Trail Development Fund has filled the funding gap for many rails-to-trails projects across the country.

Community Development Block Grant – Public Facilities (CDBG-PF) Program

Administered by the Wisconsin Department of Administration (DOA) – Division of Energy, Housing, and Community Resources, the CDBG-PF Program provides funding for communities to support facility or infrastructure projects for communities. Eligible projects must meet one of three national objectives as set by the U.S. Department of Housing and Urban Development (HUD). Pedestrian or bicycle improvements could qualify under some circumstances.

- *Benefiting low- and moderate-income persons*
- *Preventing or eliminating slums or blight*
- *Meeting other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community and other financial resources are not available to meet such needs.*

The Wisconsin DOA has yet to determine the deadline for the 2019 Grant cycle.

Highway Safety Improvement Program (HSIP)

While HSIP does not pertain to bicycle and pedestrian transportation, this WisDOT program can help improve safety measures on problematic stretches of highway where crashes have occurred in the past, thereby creating a more safe and hospitable transportation network. HSIP improvements generally require a ten percent match of state or local funds. The program generally funds low-cost options that can be implemented quickly.

Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants

The U.S. Department of Transportation's BUILD (formerly TIGER) Transportation Grants make \$1.5 Billion of federal dollars available for surface transportation projects that would make a significant local or regional impact and speak effectively to the following criteria: Safety; State of Good Repair; Environmental Protection; Economic Competitiveness; Quality of Life; Innovation; Partnership; Non-Federal Revenue for Transportation Infrastructure Investment. Other criteria include demonstrated project readiness and project costs and benefits. Geographic diversity amongst recipients is also a consideration, and it should be noted that criteria have been adjusted from TIGER to BUILD to bolster the chances of rural applicants.

Conclusion

The Langlade County Bicycle and Pedestrian Plan is intended to address a long-term period, and plan for a bicycle/pedestrian network in the county for the next twenty years. However, planning for the future does not end upon the adoption of this plan. Circumstances and user needs change frequently, and thus this plan should be closely monitored and analyzed annually to ensure that it continues to enact the goals listed herein. Additionally, as communities do with their comprehensive plans, the County should consider a formal update of the plan in ten years to update goals, objectives and recommendations to ensure planning and implementation of bicycle and pedestrian planning in Langlade County remains timely and cutting-edge.

Appendix 1: Survey Tabulation

Survey Results

Question 1: In a usual week from May through October when the weather is good enough, how do you get to work?

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Work at home. No commute.	53.33%	76.67%	73.33%	66.67%	70.00%	76.67%	63.33%
Not a work day	94.59%	31.08%	25.68%	28.38%	27.03%	33.78%	91.89%
Flex Time / compressed day off	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Drove alone	17.98%	84.27%	85.39%	91.01%	91.01%	82.02%	20.22%
Carpooled or Vanpooled	0.00%	50.00%	50.00%	50.00%	66.67%	66.67%	0.00%
Bus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bicycled	6.67%	86.67%	80.00%	73.33%	73.33%	66.67%	20.00%
Walked	0.00%	81.82%	100.00%	90.91%	72.73%	72.73%	18.18%
Taxi	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Question 2: In a usual week from November through April when the weather is good enough, how do you get to work?

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Work at home. No commute.	56.67%	73.33%	76.67%	66.67%	70.00%	76.67%	60.00%
Not a work day	92.75%	33.33%	28.99%	30.43%	28.99%	36.23%	92.75%
Flex Time / compressed day off	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Drove alone	18.68%	91.21%	90.11%	92.31%	93.41%	81.32%	20.88%
Carpooled or Vanpooled	0.00%	42.86%	71.43%	71.43%	85.71%	71.43%	14.29%
Bus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bicycled	0.00%	50.00%	75.00%	50.00%	50.00%	50.00%	0.00%
Walked	0.00%	83.33%	83.33%	91.67%	66.67%	91.67%	16.67%
Taxi	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Question 3: What type of bicyclist are you?

	Percent	Responses
No way, no how.	5.00%	7
Interested but concerned.	39.29%	55
Enthusiastic and confident.	47.86%	67
Strong and fearless.	7.86%	11

Question 4: In winter (November through April), how often do you bicycle for the following purposes?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	92.68%	0.00%	0.81%	4.88%	1.63%
Shopping or errands	92.56%	0.00%	0.83%	4.13%	2.48%
Recreation or exercise	75.00%	0.78%	5.47%	10.16%	8.59%
Social or entertainment	84.43%	0.00%	4.10%	4.10%	7.38%

Question 5: In summer (May through October), how often do you bicycle for the following purposes?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	71.55%	1.72%	12.07%	4.31%	10.34%
Shopping or errands	61.54%	1.71%	14.53%	12.82%	9.40%
Recreation or exercise	6.06%	10.61%	49.24%	20.45%	13.64%
Social or entertainment	25.83%	2.50%	41.67%	17.50%	12.50%

Question 6: What distance do you bicycle one-way for the following trips?

	Not at All	Less than 1-mile (about 5 minutes)	Up to 2 miles (About 15 minutes)	Up to 5 miles (About 30 minutes)	Up to 8 miles (About 45 minutes)	Beyond 8 miles (More than 45 minutes)
Work or school commute	73.11%	8.40%	10.08%	3.36%	0.00%	5.04%
Shopping or errands	65.29%	3.31%	14.05%	14.05%	1.65%	1.65%
Recreation or exercise	5.38%	1.54%	8.46%	20.00%	18.46%	46.15%
Social or entertainment	24.17%	0.83%	12.50%	19.17%	13.33%	30.00%

Question 7: What distance would you bicycle one-way for the following trips if something changed? “Something” could be a road improvement, or a personal / equipment improvement.

	Not at All	Less than 1-mile (about 5 minutes)	Up to 2 miles (About 15 minutes)	Up to 5 miles (About 30 minutes)	Up to 8 miles (About 45 minutes)	Beyond 8 miles (More than 45 minutes)
Work or school commute	67.24%	4.31%	8.62%	7.76%	2.59%	9.48%
Shopping or errands	47.37%	2.63%	9.65%	18.42%	6.14%	15.79%
Recreation or exercise	16.15%	0.77%	1.54%	13.85%	12.31%	55.38%
Social or entertainment	28.00%	0.00%	4.80%	13.60%	15.20%	38.40%

Question 8: How far is your one-way work or school commute now?

	Percent	Responses
Less than 1 mile	41.54%	54
Up to 2 miles	10.00%	13
Up to 5 miles	12.31%	16
Up to 8 miles	4.62%	6
Beyond 8 miles	31.54%	41

Question 9: What encourages you most to ride a bicycle? (Pick your top reason.)

	Percent	Responses
No other transportation choice	1.54%	2
Cost savings on commuting	2.31%	3
Convenience	1.54%	2
Health/Exercise	63.85%	83
Environmental Impact	2.31%	3
Fun/Recreation	28.46%	37

Question 10: How often do you wear a helmet?

	Percent	Responses
Never	20.00%	26
Not often	16.92%	22
Most of the time	16.15%	21
Every time I ride	46.92%	61

Comments

- I don't have one
- Helmets look gay
- Helmet is uncomfortable, hot.
- Not going long distance, don't feel like I need one.
- Not comfortable and hot
- I should, it's not always convenient
- I wasn't brought up to wear one. I should and my kids wear them.
- Don't have one
- Hot
- I don't ride very often, if at all, these days.
- I was struck by a vehicle and my helmet saved my life.
- Don't have one
- Too hot at times
- Don't own one
- I know I should, but usually I just jump on and go.
- Feels better without a helmet on.
- Safety.
- I have very thick hair and wear a ponytail when cycling; the helmet just doesn't fit right, even the ones made for ponytails.
- never did
- I do not if I'm biking casually on a trail that is not along a road. However, I always wear one mountain biking or when riding along a road.
- Uncomfortable, Distraction, and expense
- Not on stationary bike indoors

- Even though I should.. I just never have.
- Hat had at work – not my favorite

Question II: Which of the following prevents you from bicycling more in summer? (Choose all that apply.)

	Percent	Responses
Not physically able to do more	10.83%	13
I don't want to sweat before work/school	19.17%	23
Some part of my trip is not safe to bike for traffic reasons	55.00%	66
Some part of my trip is not safe to bike due to personal safety	15.00%	18
Road or path surfaces are poor for biking	32.50%	39
Not enough time to travel by bike	30.00%	36
Too many physical barriers	18.33%	22

Question I2: What infrastructure would improve biking in Langlade County for you? (Choose all that apply.)

	Percent	Responses
Nothing more regarding road improvements	4.00%	5
Paved shoulders on rural roads	64.00%	80
Bike racks at my destination	20.80%	26
Intersection bike accommodations	39.20%	49
Bike lanes on busy streets	66.40%	83
Off-street trails	74.40%	93
Other (please specify)	15.20%	19

Comments

- Similar to off-street Trails, trails along the Wolf River, Trails connecting one Lake to another, and trails connecting two different supper clubs in the Northwoods.
- Like other communities, ours should explore the possibilities of developing an off street bike/walking trail that link recreational areas to each other. This trail should be at least 10 miles in length with the determination to add further miles in the near future.
- Installation of bike route signs on all paved town roads. We already have many of them signed for ATV routes. Many town roads especially in the outer reaches of the County away from Antigo are black topped and are peaceful, less traveled roads except for an occasion vehicle or farm equipment. The scenery on many of these roads is very relaxing, refreshing through farming and wooded areas. Addition of bike route signs will assist the normal people traveling these roads by vehicle to become aware there could be bicyclists. Encouraging bicyclists to always wear a green reflective vest or clothing is important for added visibility. Vehicle drivers will share the road when they become aware of bicyclists using the road who may be visitors to Langlade County, weekend residents or residents. I've in the last week encountered both bicyclists and recumbent bicyclists when I was riding my bicycle.
- Town roads with bicycle route signs same as any with ATV routes. Encourage wearing of green vests for all bicyclists.

- Designated rural routes with signage.
- Better way to get across Superior Street at 10th Avenue. During summer it is extremely hard to cross at noon.
- More town-town trails, look into expanding mountain biking infrastructure based on preexisting ATV infrastructure (some property owners may be more willing to allow bike trails than they were for ATV/Snowmobile trails)
- Could we expand the current ATV infrastructure to include mountain biking (or be more mindful of it) and expand town-town networks
- Improve the Wolf River bike trail between Lily and Langlade.
- Maintaining the existing Wolf River Bike Trail. It is not in good condition and ATVs ruin the surface for biking. Compacting the trail would help a lot.
- Free
- To get northwest out of town is difficult to do without riding Hwy 45
- Preferably off street trails.
- Bike tours with people
- Paved off street trails. MN has them all over.
- I do think that if Langlade County makes improvements for bikes, it will take a bit of public awareness for drivers to be on the lookout for bikes and to know that bikes have the same rights as cars. Maybe temporary signs would help just to begin with.
- I would love to see more designated bike paths in Langlade County! Maybe they could even be linked to trail systems in other counties?
- Connections to existing trails, as many off-street routes as possible and safer crossing options across busy 4 lane hwy.
- Non bikers on roadways need to respect bikers

Question 13: Which of the following programs or information would help you bike more often? (Choose all that apply.)

	Percent	Responses
Nothing more regarding programming or information	11.57%	14
Various biking in traffic education for myself	3.31%	4
Bike education for my children, so we can ride more often together	9.92%	12
Having a guaranteed ride home if I needed a car unexpectedly	13.22%	16
Bike To Work/School events	16.53%	20
Some way of constant encouragement	18.18%	22
Motorists sharing the road better	66.12%	80
Signed bicycle routes	55.37%	67
Bike maps	35.54%	43
Other (please specify)	10.74%	13

Comments

- Various-sized Loop trails. Maybe they could measure 10 Mile Loop 15 Mile Loop 20 mile Loop 25 mile Loop Etc
- A designated off road biking trail to Jack Lake or various municipalities.
- Advertisement of various town road biking routes available to residents looking for new locations to ride, for weekend residents or visitors coming to the area. Langlade County Econ Dev and the Chamber are always

looking for ways to promote Langlade County. Enhancing our bike route maps and encouraging even bike rides. The Chamber's Fall ride has been a great way for people to ride and meet others but also see areas that they probably would not have tried. Mapping new bike routes will be in my estimation a great way to promote Langlade County.

- So many of our town roads are paved, place bike route signs on them all because it helps make the other users of the road aware that there may be bicyclists present.
- More and better bike lanes in cities and on highways
- Paved bike paths off of the highway. County roads are not safe for biking
- Bike route parallel too but not on county road A and/or Hwy 45 and like roads
- financial incentives for biking, i.e. tax break, free annual maintenance checkups, free helmets, law enforcement knowledge of bicycle laws
- I already feel comfortable on a bike, though I am extremely cautious when bike commuting to work in Antigo. Motorists are not looking out for me so I need to look out for myself. Educational campaigns geared towards "Sharing the Road" could be useful?
- More off-street routes.
- I believe her name was Michelle Koss? Was killed on her bike by an older fellow. 1. How many older folks do we have in this area? Lots. Do we want to risk our lives like her? 2. We have an extreme drug problem in Antigo. Do I want to risk my life in a drug/car vs me on a bike accident? No. 3. I live off of Hillside dr. Speeds of vehicles on this rd well exceed 60 mph. Do I want to ride next to such extreme speeds? No 4. I'd love to ride more, but I want the odds to be in my favor for returning home under my own power. Instead, I believe the odds that I would earn a one way trip to Bradleys and someone else would have to care for my animals...forever.
- Dogs kept on leashes

Question 14: If you want to continue with the walking questions, then pick: "Yes"

	Percent	Responses
Yes	73.11%	87
No	26.89%	32

Question 15: If you want to continue with the walking questions, then pick: "Yes"

	Percent	Responses
Yes	72.73%	8
No	27.27%	3

Question 16: What is the main type of walking facility you use for the following purposes?

	I don't walk for this purpose	Sidewalk	City/Village street without sidewalk	Rural Road With Shoulder	Rural Road Without Shoulder	Shared-Use Trail
Work or school commute	72.41%	19.54%	2.30%	1.15%	4.60%	0.00%
Shopping or errands	62.07%	27.59%	5.75%	0.00%	4.60%	0.00%
Recreation or exercise	3.30%	23.08%	8.79%	10.99%	20.88%	32.97%
Social or entertainment	12.36%	22.47%	8.99%	6.74%	19.10%	30.34%

Question 17: In winter (November through April), how often do you walk for the following reasons?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	84.52%	4.76%	2.38%	5.95%	2.38%
Shopping or errands	73.81%	2.38%	10.71%	7.14%	5.95%
Recreation or exercise	18.68%	13.19%	31.87%	26.37%	9.89%
Social or entertainment	37.65%	4.71%	21.18%	23.53%	12.94%

Question 18: In summer (May through October), how often do you walk for the following reasons?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	77.38%	5.95%	9.52%	5.95%	1.19%
Shopping or errands	60.00%	3.53%	16.47%	17.65%	2.35%
Recreation or exercise	4.35%	26.09%	59.78%	8.70%	1.09%
Social or entertainment	14.12%	10.59%	44.71%	25.88%	4.71%

Question 19: What distance do you walk one-way for the following trips?

	Not at All	A few blocks (About 5 minutes)	Up to 1 mile (About 15 minutes)	Up to 1.5 miles (About 30 minutes)	Up to 2 miles (About 45 minutes)	Beyond 2 miles
Work or school commute	77.91%	10.47%	3.49%	6.98%	1.16%	0.00%
Shopping or errands	60.47%	11.63%	13.95%	10.47%	2.33%	1.16%
Recreation or exercise	2.17%	2.17%	5.43%	13.04%	29.35%	47.83%
Social or entertainment	13.64%	3.41%	9.09%	15.91%	22.73%	35.23%

Question 20: What encourages you to walk most?

	Percent	Responses
No other transportation choice	1.09%	1
Cost savings on commuting	2.17%	2
Convenience	1.09%	1
Health/Exercise	77.17%	71
Environmental Impact	1.09%	1
Fun/Recreation	17.39%	16

Question 21: Which of the following prevents you from walking more in summer? (Choose all that apply.)

	Percent	Responses
Not physically able to do more	8.70%	8
I don't want to sweat before work/school	13.04%	12

Some part of my trip is not safe to walk	45.65%	42
Some part of my trip is not safe	25.00%	23
Not enough time to walk	47.83%	44
Too many physical barriers	14.13%	13

A: Busy rural roads/highways without paved shoulders.

B: Crossing intersections without traffic signals/signs

C: Sidewalks not cleared in winter.

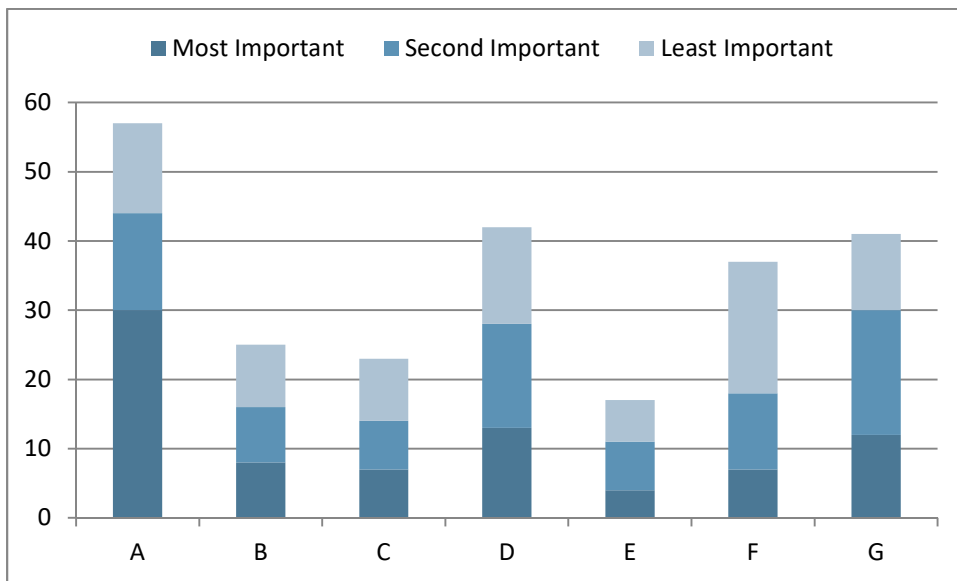
D: Sidewalks don't exist, or gaps in sidewalk.

E: Sidewalk in disrepair/obstructed (e.g. tripping hazards, trees/brushes, parked cars/garbage cans on sidewalk, too narrow, etc.)

F: Motorists don't yield to pedestrians in crosswalks

G: Few off-street trails in my part of Langlade County.

Question 22: What makes walking in Langlade County difficult? (Please choose your 3 most important reasons from above list.)



Question 23: What infrastructure would improve walking in Langlade County for you?

	Percent	Responses
Nothing	4.40%	4
Paved shoulders on busy rural roads/highways	47.25%	43
Off-street path/sidewalk on busy rural roads/highways	65.93%	60
In cities: Sidewalks on both sides of busy streets, and at least one side of busy neighborhood streets	40.66%	37
In cities: Sidewalks on both sides of most streets	27.47%	25
Sidewalks repaired or cleared of obstructions	29.67%	27

Sidewalks cleared of snow	40.66%	37
Curb ramps at every crosswalk	10.99%	10
Audible pedestrian signals to cross busy streets	15.38%	14
Easier way to cross road at traffic light or stop/yield sign controlled intersection	26.37%	24
More or improved lighting	36.26%	33
Motorist education about pedestrians' rights while in crosswalk	38.46%	35
Other (please specify)	14.29%	13

Comments

- Work on adding more walking trails. Kettlebowl Ski area has cross country ski trails and that area could be opened to some walking trails. What will be needed is adequate signing for the safety of all individuals. A number of people already use this area but they are familiar with the area and don't need signs. But newcomers or visitors to the area need appropriate signage when a trail is developed. Langlade County Econ Dev and the Chamber would be happy to promote these new off road walking or hiking trails to our residents, weekend residents or visitors.
- Encourage thru education, the use of Green reflective vests while riding especially on rural roads, highways or busy streets. Visibility is key to safety on streets and to make the motorist aware sooner rather than later that a bicyclist is ahead on road or street.
- Cleared shoulders on the roads would be good. Wide enough for me and my dog to get off the road.
- Lack of bathroom facilities at the boardwalk in Antigo
- Stop giving our hiking trails to atvs (yes I have atvs, but we already have many atv miles).
- Designated off road bike/walking trails.
- crosswalks / controlled intersections that give enough time to cross 4+ lanes of Hwy 45
- Not just paths, but connecting those paths in a way that connects relevant places (Hospital, downtown, schools) with each other.
- do not allow ATVs on rural roads that have no shoulders.
- lighting at for night walking. street lights on side roads are few and far between
- law enforcement should set the example and yield right of way to pedestrians. Issue citations to vehicles that fail to yield or overtake those that do yield.
- Speaking from an Antigo perspective, trying to cross Hwy 45 in the center of town is wildly frustrating as a pedestrian or biker. 4 lanes, constant traffic, only one stop light (at 5th Ave. intersection). Difficult to safely cross this street without running. It would be nice to find ways to slow down traffic (roundabouts?), have increased signage (such as the blinking pedestrian crosswalks by the hospital), or alternative routes across this busy road (bridges, tunnels?). These ideas may translate to other wide, busy roads within the county as well.
- Build a sidewalk on Aurora Street between 6th and 9th Aves

Question 24: Which of the following programs or information would help you walk more often? (Choose all that apply.)

	Percent	Responses
Nothing more regarding programming or information	19.78%	18
Various walking/crosswalk education for myself	0.00%	0
Anti-slip shoes/boots for winter	2.20%	2
Having a guaranteed ride home if I need a car unexpectedly	10.99%	10

Walk to Work/School events	13.19%	12
Some way of constant encouragement	23.08%	21
Motorists sharing the road better	46.15%	42
Signed (Sidewalk stenciled) routes	30.77%	28
Walking route maps	37.36%	34
Other (please specify)	10.99%	10

Comments

- Development and promotion of new walking trails that are signed for safety purposes to those unfamiliar with the area.
- Development and advertise the Wolf River State Trail for walking, hiking and bicycle use. Summer ATV use is restricted due to the Upper Wolf River Fisheries area. Currently the trail is not maintained for bikes. There are new ways for the trails to be maintained and the surface hardened for bike use. Langlade County should research what other counties have done to upgrade their former railroad bed trails. The trail has historical significance from the early years of Langlade County.. Add periodic stops with historical information, info booths for the people using the trail both Langlade County and visitors to Langlade County. Make it a destination. Langlade County Econ Dev and the Chamber I am sure would come on board. They are always looking for ways to encourage visitors to our County.
- Bathrooms at boardwalk in Antigo
- More support for silent sports coming from our county officials
- Sidewalks
- Designated off road bike/walking trails.
- Trails that don't allow motorized vehicles.
- Walking routes would be useful! Especially if they show where to find sidewalks, quieter streets to use, and the safest intersection to cross a busy road. At night, it might be nice to know where the well lit routes are.

Question 25: Would you like to make any additional comments?

Comments

- I believe by adding biking and walking trails would bring a abundance of tourist to the area. For example, Boulder Junction bike trails are paved and they are both fun to ride on and bring a ton of tourism to the area. When the city of Antigo added the walking trail by the lake it gave people a place to walk that is safe and beautiful. I would like to see additional bike trails (paved or gravel).
- Langlade County has a trail that is not being adequately maintained—the Wolf River State Trail. A portion of this trail is open only to walkers, hikers, bicyclists or horseback riding in the summer. The trail needs to be upgraded. Look for grants to assist. The trail base is not adequate for many bicycles because it is not a hardened enough surface. Other counties could be contacted to see what they have done to maintain their trails for these same purposes. There is a new hardening application process, etc. that is being used. I hope Langlade County will look into. The Wolf River State Trail has a lot of historical background from the early days of our County and during the years that it was a railroad track. Putting historical informational booths or signs at various sites along the trail to peak the interest of the persons using the trail would assist people to learn more about our County and its history.
- We have a number of areas in eastern Langlade County that can be updated. Walks along the Wolf River. Walks by the Evergreen River. Walks in the Crocker Hills. Ice Age trail is walked by many. Develop walking trails from

Kettlebowl Ski area. There are cross country si trails that could be developed into spring, summer and fall destinations. There are already people who have found this area but for most people the trail needs to be developed and well signed for the majority of people. Signing in a large wooded area that Kettlebowl is located in would be necessary for safe walking and exercise on the trails.

- When you give the option for “Other” you should have a check box, so the comment it recorded.
- Off-road paved bike paths are needed in Langlade County!
- I actually haven’t biked much out in the country where we live since Michelle Koss died doing so. I’m kind of freaked out about the traffic and safety issues.
- The boardwalk needs some place to use the bathroom besides the park. I have to walk between Langlade Rd and North Elementary because I have to have frequent benches to sit on and the other areas of the boardwalk the benches are too far apart. There is no place to use the bathroom and the wood chip trails are too squishy for me to walk down them into the woods.
- The city boardwalk is wonderful! I would love to see that extended out to business on the north end of town along with more loops to vary the route. Maybe an exercise circuit with stations for upper body workouts somewhere along the way? Thanks for asking!
- I have watched kids trying to cross Hwy 45 and it isn’t safe. Need more flashing light crosswalks along the highway like are outside the library.
- I’m disappointed in the county’s lack of support for silent sports.
- Great survey..... I would love to see Antigo become more bike and Walker friendly, perhaps even becoming a blue zone community like Dodge co..... If you are looking for committee members , I would be more than happy if time allows, my email is cluerssen72@gmail.com and my name is Chad
- I feel an off road bike and walking path would be a great asset in northern Langlade County. There is limited safe places to walk or bike currently especially with young children.
- In counties north of us there are amazing bike and walking trails. It would be wonderful to have something like that here. It would be great to connect with that system. Chicago Northwestern rail line could help that happen.
- I’m in the northern section of Langlade County and would like to see more off-road walking trails in the Elcho/Post Lake/Summit Lake area
- The City of Antigo is not listed on the Municipality list and that’s where I live.
- Questions were difficult to answer as I am retired and the questions asking why I don’t walk or bike more did not give an option that was my answer. My answer is that I don’t want to do more as I am happy with what I am doing.
- Langlade County is in need of hard surface biking trails that are not accessible to motorized vehicles.
- Now you are worried about bicyclists and pedestrians when Langlade Co. townships have opened all municipal roads to ATV travel? They are not very good at sharing the road.
- My interest is primarily rural. I’m glad to see this survey. Although I do see people biking and walking on rural roads in my area, I do feel uncomfortable because of the speed of traffic and no paved shoulders or very narrow shoulder. I would absolutely love to see that improved. Also, maybe a program could be available for people to buy extremely reasonable bright colored clothing that is appropriate for biking or walking.
- More sidewalks on 45 and in place’s they are needed
- I believe that the location question should read City of Antigo, there is no city of Adams in Langlade County
- I live in Antigo so I am most familiar with the walking/biking conditions within the city. The Springbrook trail is a wonderful resource and I would love to see the paved path extended. When I bike around town and into the surrounding areas I try to be extremely cautious however. Motorists in this area are often not used to watching for cyclists and and many of the roads have no shoulder at all. Would definitely love to see more (and safer!)

biking/walking opportunities within the county. I'm going to use these methods of transportation regardless (mostly for environmental and health reasons), but I would appreciate having better access and safer routes.

- I love walking and biking, but more off-street routes would make commuting and recreational biking safer. When biking or walking with children I avoid certain routes, because there is not a safe way to travel with small inexperienced bikers.
- No
- I think safety in rural sections of Langlade County is lacking for biking/pedestrians. There is a lack of visibility to motorists. We travel very busy highways and don't have a lot of options to move over, and have a lack of options to travel between trail systems in existence already.

Question 26: What is your age?

	Percent	Responses
Younger than 25	4.03%	5
25 to 34	17.74%	22
35 to 44	23.39%	29
45 to 54	10.48%	13
55 to 64	21.77%	27
More than 64	22.58%	28

Question 27: What is your gender?

	Percent	Responses
Male	37.70%	46
Female	62.30%	76

Question 28: Do you live in or own a summer home in Langlade County?

	Percent	Responses
Yes	79.84%	99
No	20.16%	25

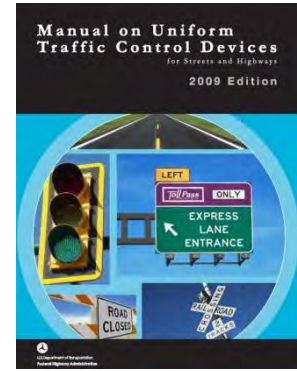
Question 29: What municipality is your Langlade County home or summer home located in?

	Percent	Responses
City of Antigo	10.75%	10
Village of White Lake	3.23%	3
Town of Ackley	0.00%	0
Town of Ainsworth	0.00%	0
Town of Antigo	30.11%	28
Town of Elcho	15.05%	14
Town of Evergreen	0.00%	0
Town of Langlade	5.38%	5
Town of Neva	3.23%	3
Town of Norwood	2.15%	2

Town of Parrish	0.00%	0
Town of Peck	2.15%	2
Town of Polar	6.45%	6
Town of Price	0.00%	0
Town of Rolling	9.68%	9
Town of Summit	0.00%	0
Town of Upham	5.38%	5
Town of Vilas	0.00%	0
Town of Wolf River	6.45%	6

Appendix 2: Wayfinding

The *Manual for Uniform Traffic Control Devices* (MUTCD) is the required manual to use when determining what sign is needed along a road or on private property that is open to the public. Other guides also exist such as NATCO's *Urban Bikeway Design Guide*, and WisDOT's *Wisconsin Bicycle Facility Design Manual*.

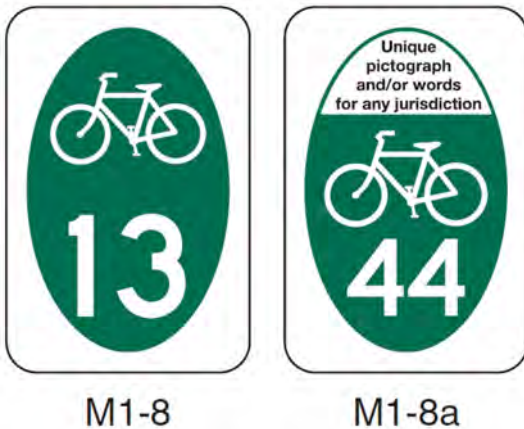
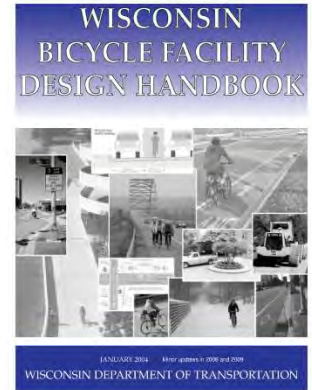
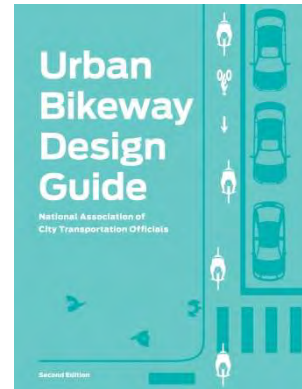


Bike Route Signs

Recommendations:

- Determine if a logo will be used or not (M1-8a is the logo sign). Signs going into other counties may not want to have logos on them (similar to County Highways that are named the same in adjacent counties).
- Determine what numbers will be used for each route.
- Coordinate ordering and sign installation per MUTCD requirements with the Langlade County Highway Department.

Sources:



Wayfinding Throwback

- 1911, a centerline is painted on a Michigan road.
- 1914, the first electric traffic signal is installed in Cleveland.
- 1915, the first STOP sign appears in Detroit.
- 1918, Wisconsin is the first state to erect official route signs as part of its maintenance functions.
- 1920, the first 3-color traffic signal is installed in Detroit.

Possible Bike Loop Route Signs

Recommendations:

- Determine if a Bike Loop Route is temporary (less than 2 years) or long term (2 years or longer). If it is a temporary route, then consider not signing it.
- For long term loop routes, consider using “D1-3b” signs to show each route turn before an intersection (see Figure 9B-6). No need to install “D11-1c” signs, unless you want the rider to verify that they are on the correct route – particularly useful if the intersection is in a busier place (like in a city or village).
- Coordinate ordering and sign installation per MUTCD requirements, and any volunteer assistance, with the Langlade County Highway Department.

Note: Bicycles are allowed on most streets, so don't use “Begin” or “End” signs above a bike route sign. Motorists may interpret their use as bicycles are only allowed on bike routes.



D11-1



M5-1

M6-2

M6-1



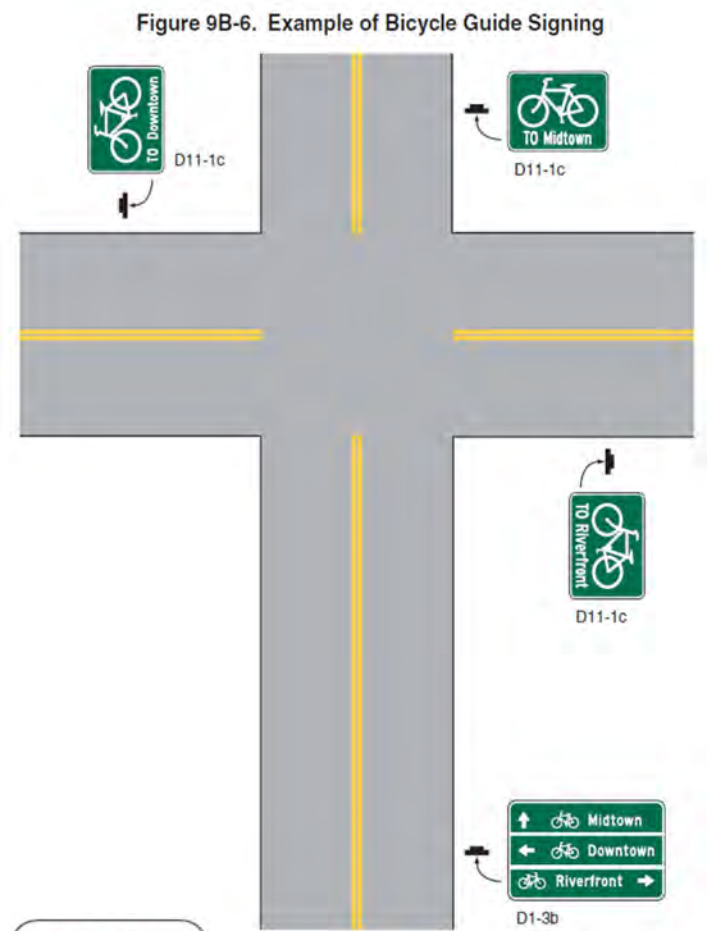
R4-11



W11-1*



W16-1P*



M1-8

This “M1-8” sign may be used instead of the “D11-1” sign if route numbers are used.



D1-3

This “D1-3” sign may be used for park wayfinding.

See MUCTD for guidance.

In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1P) plaque may be used in conjunction with the W11-1 sign.

Place this sign assembly (below) on:

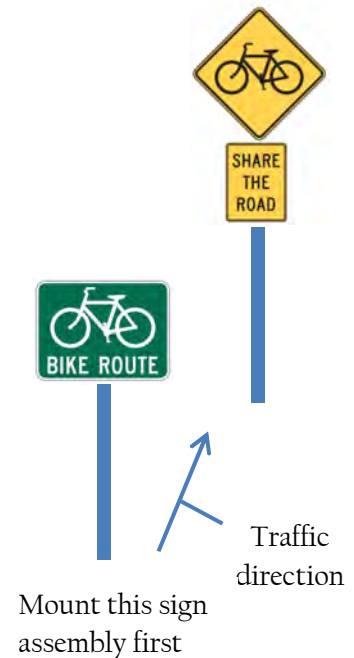
- Roads that enter Antigo. Consult WisDOT for state highways, or the Highway Commissioner for county highways.

Place this sign assembly (below) in line with painted sharrows on:

- Roads where on-street parking is used.
- Business districts.

After the last block where a *Bike Route* sign is installed, place the *Share The Road* assembly at the start of the next block/road intersection.

If bike route ends at a 4-way intersection, then 3 *Share The Road* assemblies should be used – similar to how county highways are signed.



Section 2A.04 Excessive Use of Signs (From MUTCD 2009)

Guidance:

- *Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness. If used, route signs and directional guide signs should be used frequently because their use promotes efficient operations by keeping road users informed of their location.*

NCWRPC Note: Since the green bike route signs (D11-1, and m series) below are guide signs, then frequent use is justified per the above guidance (2A.04). Frequent use is defined below in the NACTO text.

- “...every 2 to 3 blocks along bicycle facilities, unless another type of sign is used (e.g., within 150 ft of a turn or decision sign). Should be placed soon after turns to confirm destination(s). Pavement markings can also act as confirmation that a bicyclist is on a preferred route.”
(From NACTO Urban Bikeway Design Guide)

Rural Roads

On quiet country roads, little improvement is necessary to create excellent bicycling routes (fig. 2-9). Examples include town roads and many county trunk highways. State trunk highways and some county trunk highways, however, tend to have more traffic and a higher percentage of trucks. As a result, they are often improved with the addition of paved shoulders (sec. 2.6).



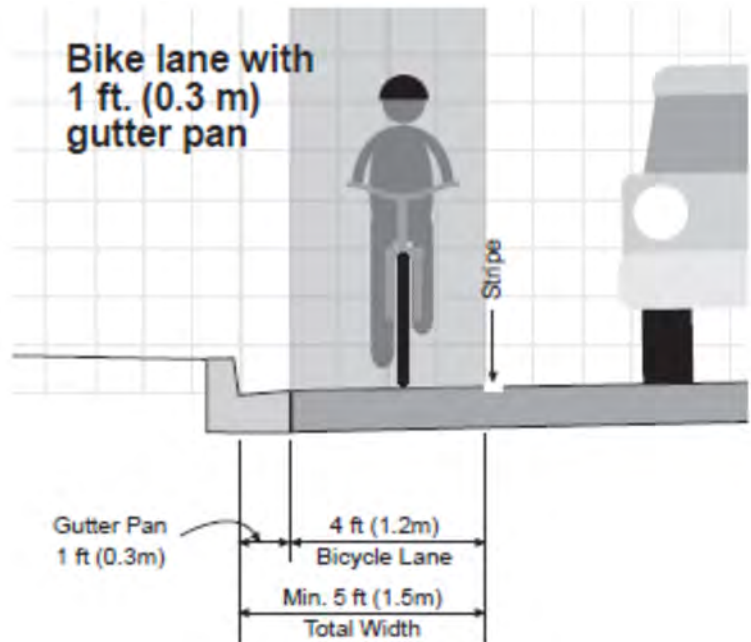
Figure 2-9: Many low-volume country roads need few improvements in order to serve bicyclists well.

No improvements beyond a bike route sign are needed on asphalt paved or seal coated rural roads with traffic volumes less than 500 AADT (annual average daily traffic).

Dust should be controlled on gravel rural roads that are signed as bicycle routes.

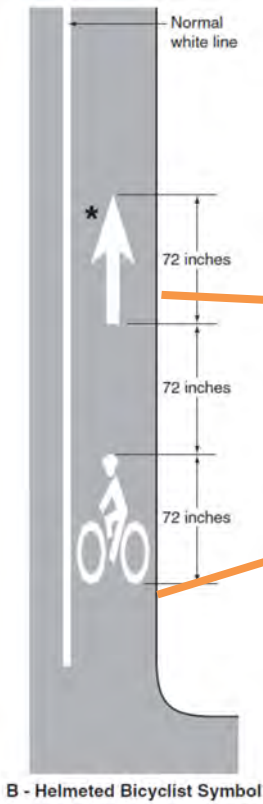
Asphalt Road with curb

On a curbed asphalt street without parking, the standard clear width of a bicycle lane is 4 feet, as measured from the inside of the stripe to the joint line with the gutter pan. Depending on whether a 1 foot or 2 foot gutter pan is used, the total width from curb fact to the inside of the bike lane stripe would either be 5 or 6 feet total.



Road with parking and curb

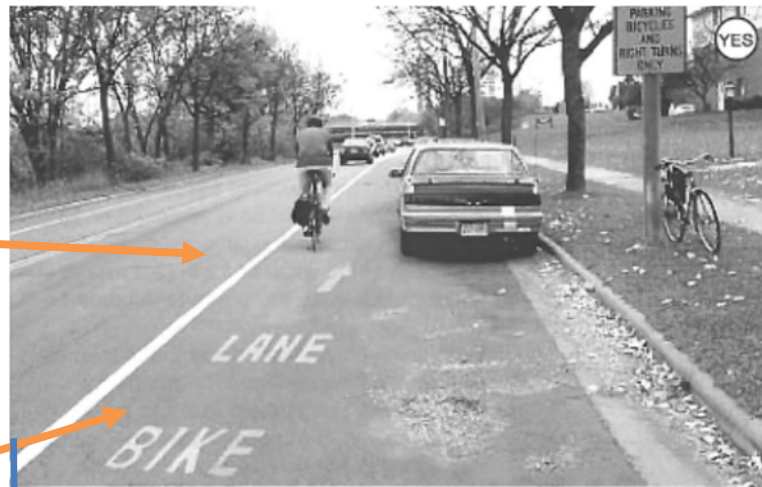
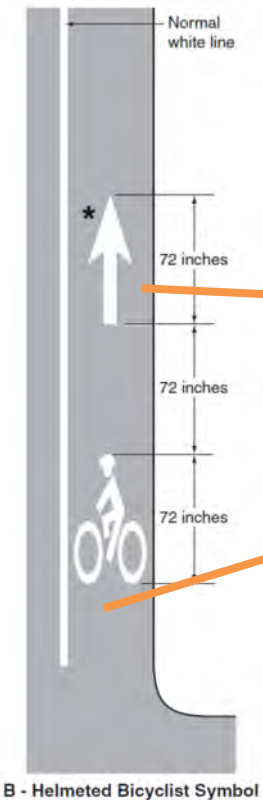
Sample bike lane next to **painted** on-street parking.



5 ft min.

13 feet min.

Sample bike lane next to **non-painted** parking lane.



13 feet

Urban or Paved Shoulder

Where on-street parking is necessary to keep, but where that parking may not be used consistently, an *urban shoulder* is suggested to be painted to encompass up to 7 feet of the whole parking lane. This area may be used to park cars and ride a bike in when cars are not there.

NOTE: Do not paint bike lane markings on the shoulder.

Sample *urban shoulder* where parking is allowed



Sample *paved shoulder* where parking is allowed:



Recommendations

- Along higher volume roads, 3 to 5-foot paved shoulder provides safe space for bicyclists depending on ADT, % trucks, % double yellow line & number of bicyclists. Also, trucks and cars can pull off the road to adjust their vehicles.
- If traffic is riding over the white line, then install bicycle safe rumble strips on the white lines.
- Contact your WisDOT Bicycle Coordinator to verify what size shoulder a specific road should have based upon expected bicycle and pedestrian traffic.

Appendix 3: Comment Received

Subject: Fwd: Langlade County Bicycle and Pedestrian Plan Comments
From: afaust <afaust@ncwrpc.org>
Date: 2/1/2019, 6:37 AM
To: "Darryl L. Landeau" <dlandeau@ncwrpc.org>

Sent via the Samsung Galaxy S8, an AT&T 5G Evolution smartphone

----- Original message -----

From: BBraun@co.langlade.wi.us
Date: 1/31/19 4:32 PM (GMT-06:00)
To: staff@ncwrpc.org
Subject: Langlade County Bicycle and Pedestrian Plan Comments

Hello,

Following are some concerns and or comments regarding the Langlade County Bicycle and Pedestrian Plan please see attached.

It would be easier to understand the Proposed facility map if the color was different for on roadway vs off roadway facilities.

I do not believe that any portion of a State highway, County highway or township road should be considered for part of a bicycle or pedestrian route if it is rated lower than the "best condition". I think that existing routes should be required to meet a minimum criteria (traffic volumes, types of vehicles using the roadway, road bed width, hills curves etc.) I strongly agree with the advisory group workshop #2 in that "...some portions on county highways...would absolutely need paved shoulders in order to functionally increase their bikeability" They are not safe without a bike lane as existing and should not be included in the list of proposed facilities.

CTH T from CTH H to STH 45 is a narrow, curvy, hilly roadway with high volumes of log truck traffic. CTH AA from CTH Y to CTH S has many hills and curves with very limited sight distances. CTH J between CTH H and CTH B is similar. CTH B used to be what is now STH 45 has many hills and curves with limited sight distances, Bass Lake and Bass Lake Golf Course create seasonally high traffic times. This corridor was abandoned as a state highway for a reason.

In order to construct shoulders on some of the roadways, additional R/W would have to be purchased. Would it not be better to purchase R/W for a separate facility to avoid exposure to vehicle traffic?

Some portions of proposed roadway facilities are also ATV/UTV routes. (CTH H, J ,B,U,Z) Are these uses compatible?

I am not opposed to bicycle routes; however, I would not let my 10 and 14 year old boys ride on many of the proposed roads considered as proposed bike routes.

I will contact Alexander Brown to discuss my concerns and hope to understand the selection process better.

Respectfully Submitted,

Brian Braun
Commissioner
Langlade County Highway Department
(715)627-6272 (office)
(715)219-4012 (cellphone)

Notes on Langlade County Bicycle and Pedestrian Plan

P. 13 Jack Lake, not Jake

P. 29 Re-Ice Age National Scenic Trail

“Completion of this portion of the trail is almost complete as of 2017. (See Langlade County Outdoor Rec. Plan Comments).”

This statement is not accurate. I questioned its inclusion in the draft Langlade County Outdoor Recreation Plan presented by Fred Heider with my comments (see below) at the October 12, 2016 public meeting. At this time, very few fee simple acquisitions or easements of the approved trailway corridor between the existing trailhead on Sherry/Oak Roads in the Town of Polar to the Plover River trailhead in Marathon County at County Highway HH have been undertaken or completed.

P. 31 “One goal of the Antigo City Parks Plan is to connect the city with the Ice Age National Scenic Trail.”

During development of the Ice Age National Scenic Trail-Corridor Plan and Environmental Assessment Southern Langlade County, Wisconsin there were preliminary discussions with city staff regarding this goal but nothing since the corridor plan and environmental assessment were approved in 2010 by the federal and state agencies. In the discussion, utilization of the Springbrook stream corridor offered an attractive potential for a connection with the city and proposed trail.

P. 56 “Corridor Recommendations – Corridor between Antigo and Elcho (and alternatives)”

The county’s 2016-2021 Outdoor Recreation Plan has a NCWPC note as follows:

“Segment 19—Langlade County to Michigan NCWRPC note: The right-of-way no longer exists, so this segment is not described.”

Most of this former railroad corridor is privately owned, except for short stretches held by the City of Antigo and the Town of Elcho. Portions of both publicly owned stretches are developed as residential, commercial or recreation properties.

P. 63 Elcho and Monico Corridor Description and Justification

Celar Lake should be Clear Lake.

P. 67 “Recommendation 3: Actively support efforts to acquire property or donated land to complete connections of the Ice Age National Scenic Trail”.

The Langlade County Chapter of the Ice Age Trail Alliance appreciates and supports the recommendation. However, there is no reference in the recommendation to realize the greater need envisioned in the Ice Age National Scenic Trail-Corridor Plan and Environmental Assessment Southern Langlade County, Wisconsin for an eventual off-road connection with Marathon County in addition to the gap closing needs in the Towns of Upham and Parrish for the long distance hiking trail.

PP. 100 “Map 6 Proposed Facilities”

The map did not show any proposal to complete the Ice Age National Scenic Trail as part of a long distance hiking facility in Langlade County. I am assuming it was done because of the

indefinite status of the project even though there is a completed and approved corridor plan for the connection with Marathon County.

Joe Jopek

Comments made at October 12, 2016 Public Meeting for Draft Langlade County Outdoor Recreation Plan 2017-2021

Page 7 – Reference made to Wolf River entering county at Lower Post Lake (should be Upper Post Lake according to DNR Water Resources Report for Langlade County).

Page 7 – Reference to Jack Lake as deepest lake in county. Not according to DNR Water Resources Report for Langlade County. Jack is 38 feet deep, Goto Lake in Town of Polar is 82 feet deep.

Page 14 – Reference to First County Forest (1928) Historical Marker at Veteran’s Memorial Park is in need of some attention (corrosion).

Pages 20-41 – Municipal spreadsheets not available.

Page 43 – Reference to Lincoln County (boilerplate oversight?).

Page 44 – Reference to City of Antigo update (when and where available?).

Page 50 – Reference made to Ice Age Trail in Langlade is almost done. Optimistic?

Reference made to local chapter remains committed to working with county and private landowners to complete the project. Very true, but please also identify state trail organization (Ice Age Trail Alliance) willing and committed to working with county and private landowners.

Page 51 – Admission fees for county park users???

Page 53 – County recommendation to continue working with local Ice Age Trail chapter in maintaining trail stretches on county forest lands. We have enjoyed that cooperation since 1973 and look forward to the respect and continued support in the future.

Page 54 – City of Antigo updated information? When and where available.

Page 56 – Implementation Strategies – Shoreland Zoning? Recent state legislation has taken the teeth out of this tiger as an effective local measure to provide long term management of critical natural resource. More reference to specific resource programs for implementation might help in realizing the goals within the document. Interested in funding sources or assistance for purchasing future parcels.

I want to commend the committee for having this public meeting and Fred for highly recommending it.

Subject: Fwd: Re: Langlade County Bicycle & Pedestrian Plan
From: Dennis Lawrence <dlawrence@ncwrpc.org>
Date: 1/10/2019, 12:00 PM
To: Darryl Landeau <dlandeau@ncwrpc.org>, pheinrich@ncwrpc.org

FYI

----- Forwarded Message -----

Subject: Re: Langlade County Bicycle & Pedestrian Plan
Date: Thu, 10 Jan 2019 11:11:48 -0600
From: Joe Filbrandt <joefilbrandt@gmail.com>
To: North Central Wisconsin Regional Planning Commission <info@ncwrpc.org>

I have been reviewing your maps. All the routes are fine and great but there are a number of issues. If you put signage out on the existing roads, people are going to expect good surface and safe biking. I don't see that happening and you would be wasting your time and our money. The best is what I have been proposing in the past. Install a designated off-road blacktop route from Eland to Three Lakes and from Antigo to Mountain/Lakewood connecting places and villages. Include a few circle routes. Locals that bike already know the current roads. Guest riders will have GPS. Turn the Wolf River paths into black top biking only. Hwy 64 is not a safe road to bike, especially for kids. Use some common sense, create a system similar to blacktopped routes in other parts of the state. Enough talk, more action.

Thanks,
Joe Filbrandt

On Thu, Jan 10, 2019 at 10:04 AM North Central Wisconsin Regional Planning Commission <info@ncwrpc.org> wrote:


Draft Available for Review

[View this email in your browser](#)



Langlade County
Bicycle &
Pedestrian Plan
2018

North Central Wisconsin
Regional Planning Commission



**North Central Wisconsin
Regional Planning Commission**
715-849-5510
www.ncwrpc.org
staff@ncwrpc.org



--
Joe Filbrandt

Jerome Filbrandt Plumbing & Heating, Inc.

908 Edison St.

Antigo, WI 54409

715-623-5379

715-623-5330 FAX

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North Central Wisconsin Regional Planning Commission

210 McClellan St Ste 210

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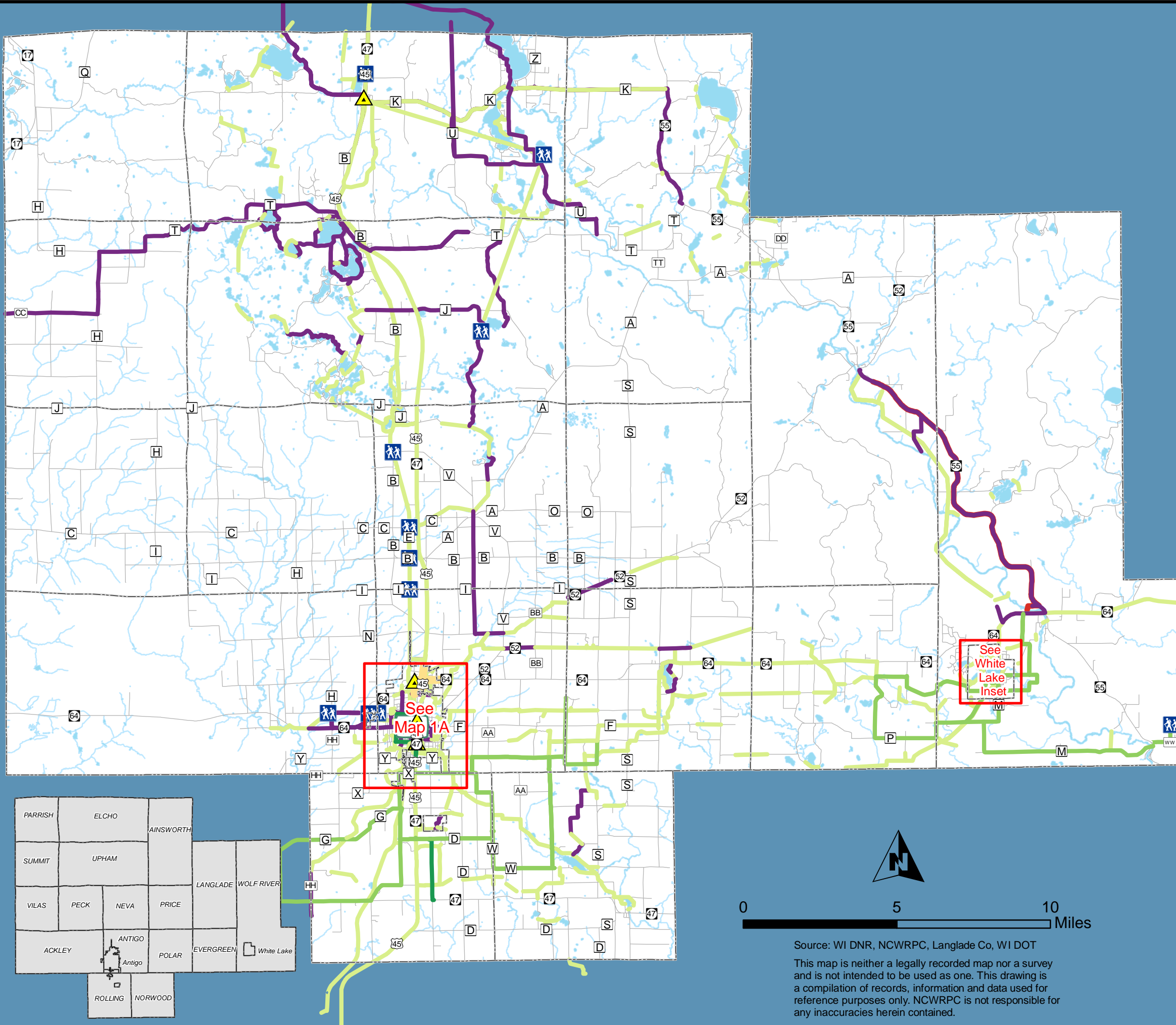
Maps

Map 1 WikiMapping Information

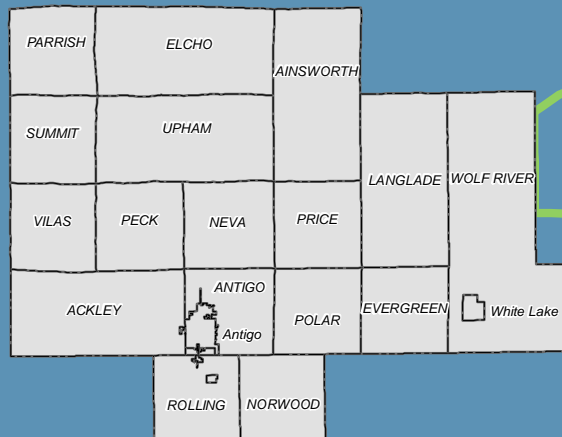
Langlade County, Wisconsin

Legend

-  Conflict Area
-  Route Needs Bike Improvement
-  Route Needs Walk Improvement
-  I Want a Path Here
-  Route I Like to Bike
-  Route I Like to Walk
-  Bike Parking Needed
-  Conflict Area
-  Destination to Walk/Bike To
-  Roads
-  Water



White Lake Inset



Source: WI DNR, NCWRPC, Langlade Co, WI DOT

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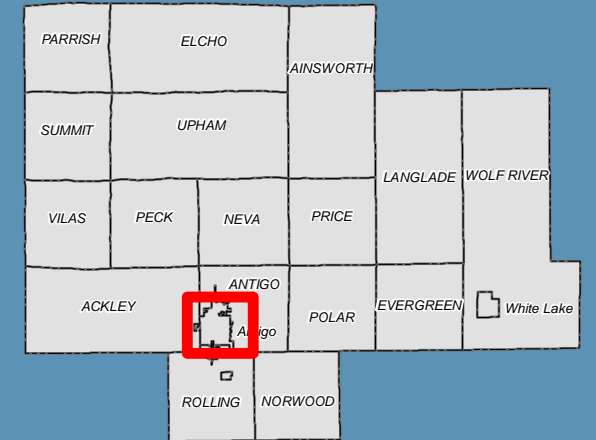


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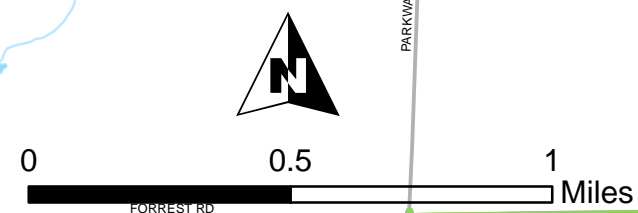
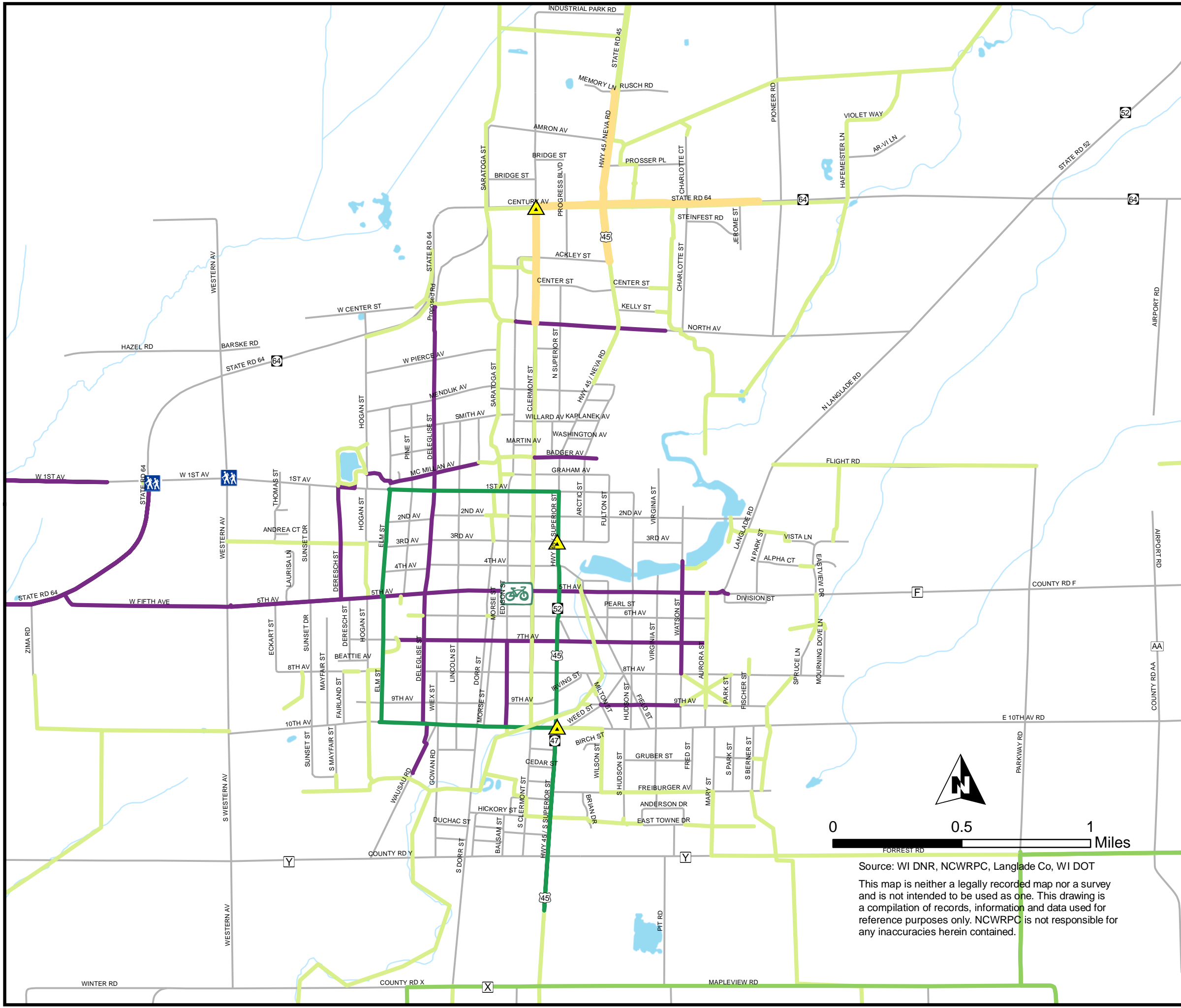
Map 1A WikiMapping Information

Langlade County, Wisconsin



Legend

- Route Needs Bike Improvement
- Route Needs Walk Improvement
- I Want a Path Here
- Route I Like to Bike
- Route I Like to Walk
- Bike Parking Needed
- Conflict Area
- Destination to Walk/Bike To
- Roads
- Water



Source: WI DNR, NCWRPC, Langlade Co, WI DOT
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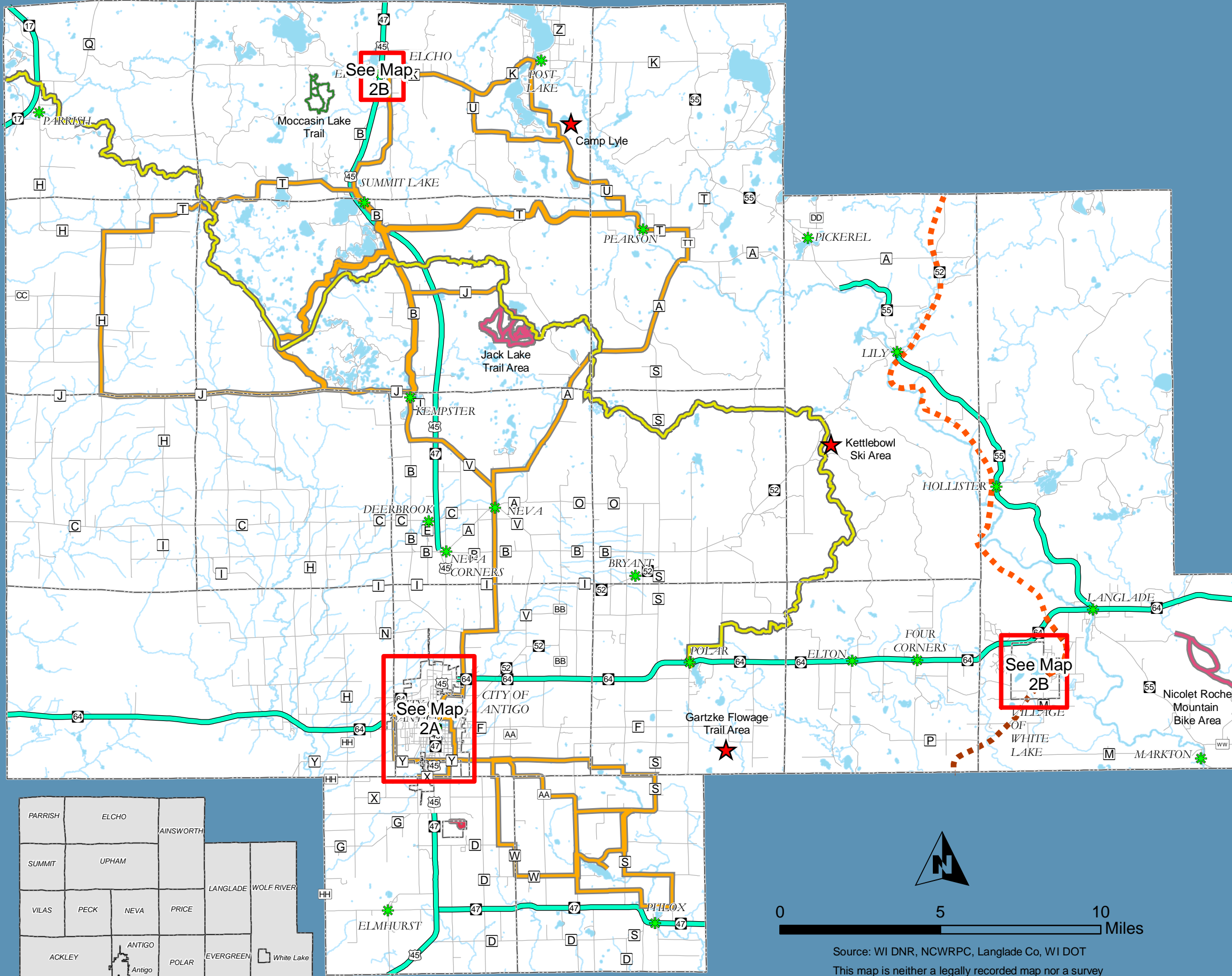


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Map 2 Existing Facilities

Langlade County, Wisconsin



Legend

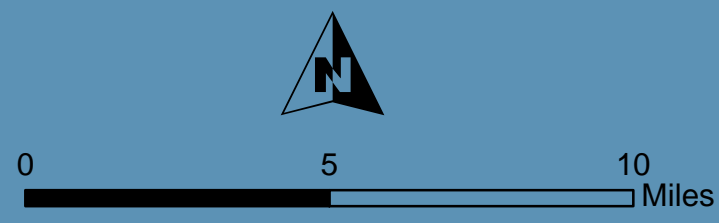
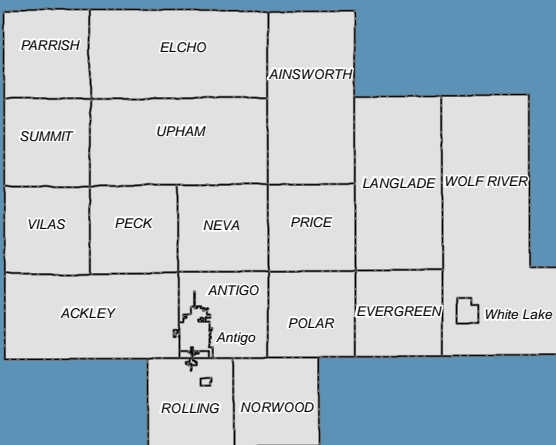
- Wolf River State Trail
- Rails to Trails
- Ice Age Trail
- 1999 Vintage Bike Routes
- Mountain Bike Trail
- Moccasin Lake Trail
- Paved Shoulder
- Roads
- Water

*** NOTICE**

Each proposed bike route becomes a bike route when the controlling jurisdiction:

1. Officially designates by ordinance one of the segments or part of a segment per WI State Statute 349.23; and
2. Installs bike route signs

NOT for NAVIGATION. Not all routes and trails depicted are travelable. In various stages of planning and development.

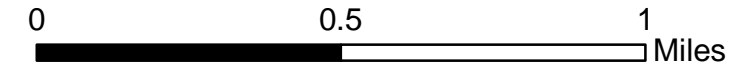
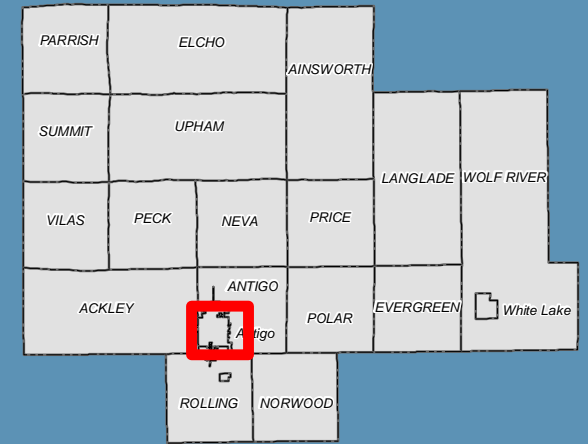


Source: WI DNR, NCWRPC, Langlade Co, WI DOT
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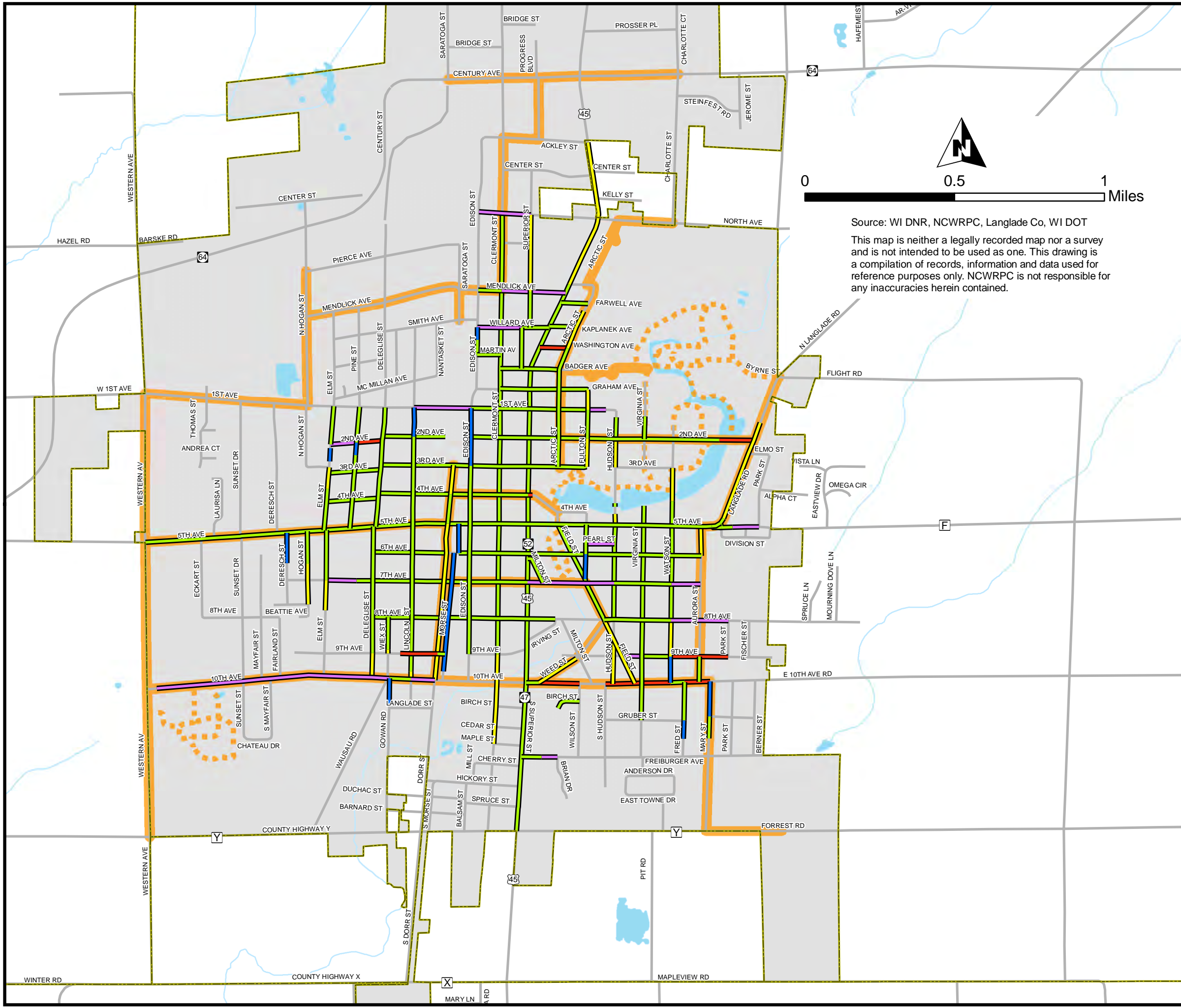
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Map 2A Existing Facilities

City of Antigo, Wisconsin



Source: WI DNR, NCWRPC, Langlade Co, WI DOT
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Legend

- Roads
- Water
- Bike Routes**
- Existing Off Road
- Existing On Road
- Sidewalks**
- Location**
- Both Sides
- East Side
- North Side
- South Side
- West Side

* NOTICE

Each proposed bike route becomes a bike route when the City:

1. Officially designates by ordinance one of the segments or part of a segment per WI State Statute 349.23; and
2. Installs bike route signs

NOT for NAVIGATION. Not all routes and trails depicted are travelable. In various stages of planning and development.



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Elcho Area

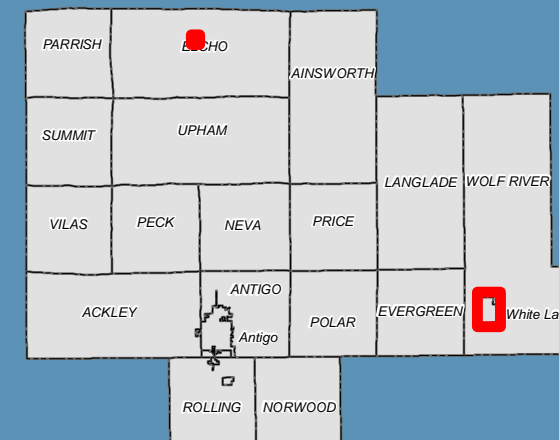


Village of White Lake



Map 2B Existing Facilities

Elcho Area and Village of White Lake
Wisconsin



Legend

Sidewalk Location

-  Both Sides
-  East Side
-  North Side
-  South Side
-  West Side
-  Paved Shoulder
-  Wolf River State Trail
-  Local Roads
-  Water

* NOTICE

Each proposed bike route becomes a bike route when the Village or Town:

1. Officially designates by ordinance one of the segments or part of a segment per WI State Statute 349.23; and

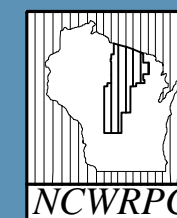
2. Installs bike route signs

NOT for NAVIGATION. Not all routes and trails depicted are travelable. In various stages of planning and development.



Source: WI DNR, NCWRPC, Langlade Co, WI DOT

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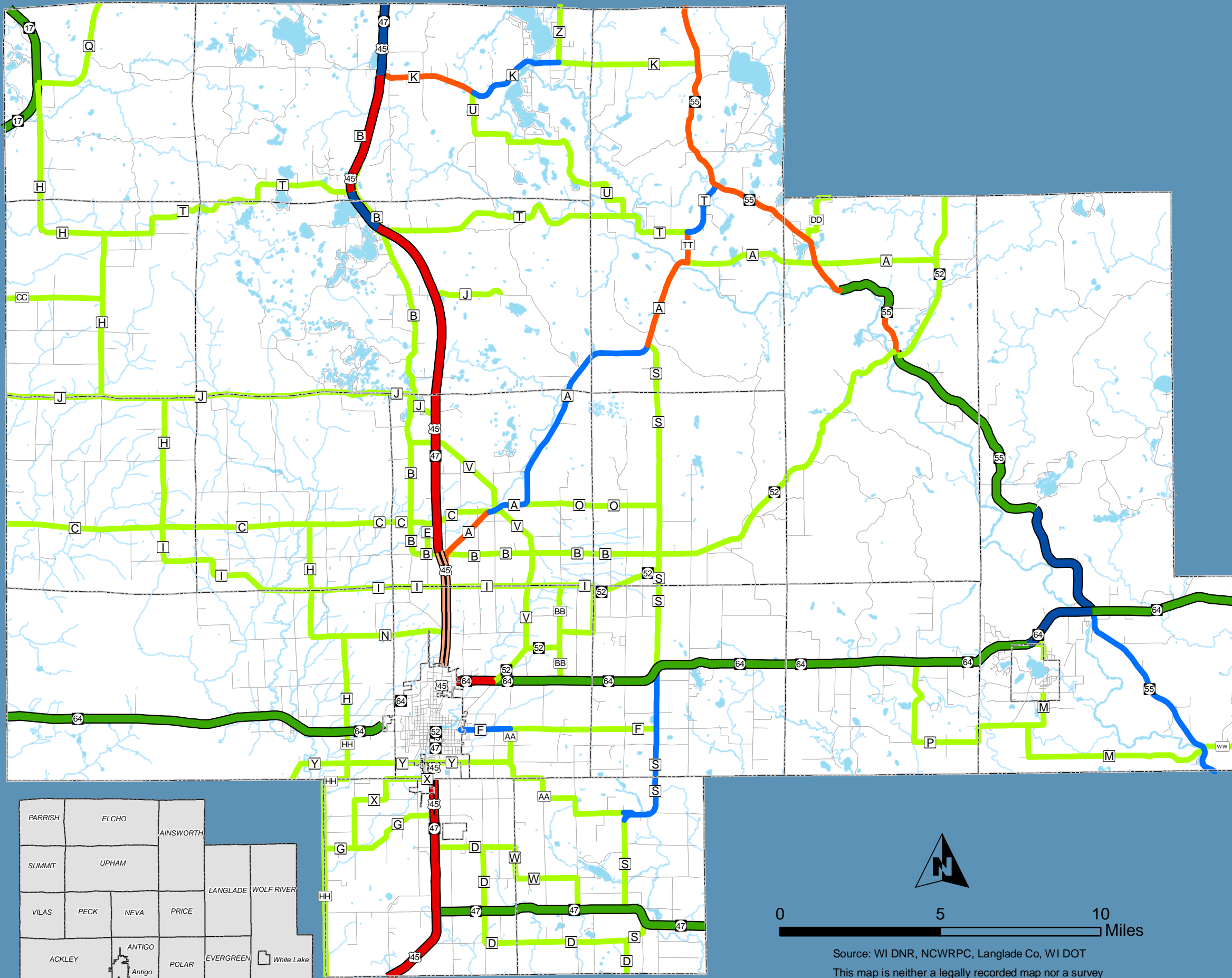


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Map 3 Bike Suitability Ratings

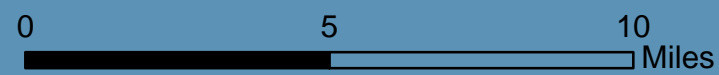
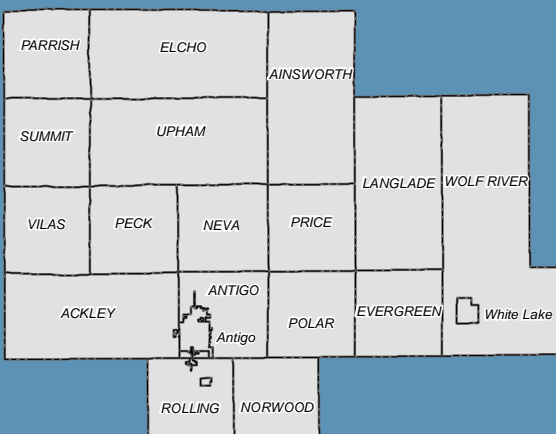
Langlade County, Wisconsin



Legend

Bike Suitability

- Best Condition
- Best Condition Paved Shoulder
- Moderate Condition
- Moderate Condition Paved Shoulder
- Higher Volume, 4-lane, Wider Paved Shoulder
- Undesirable High Volume
- Undesirable 4-lane Highway
- Undesirable Paved Shoulder
- Roads
- Water



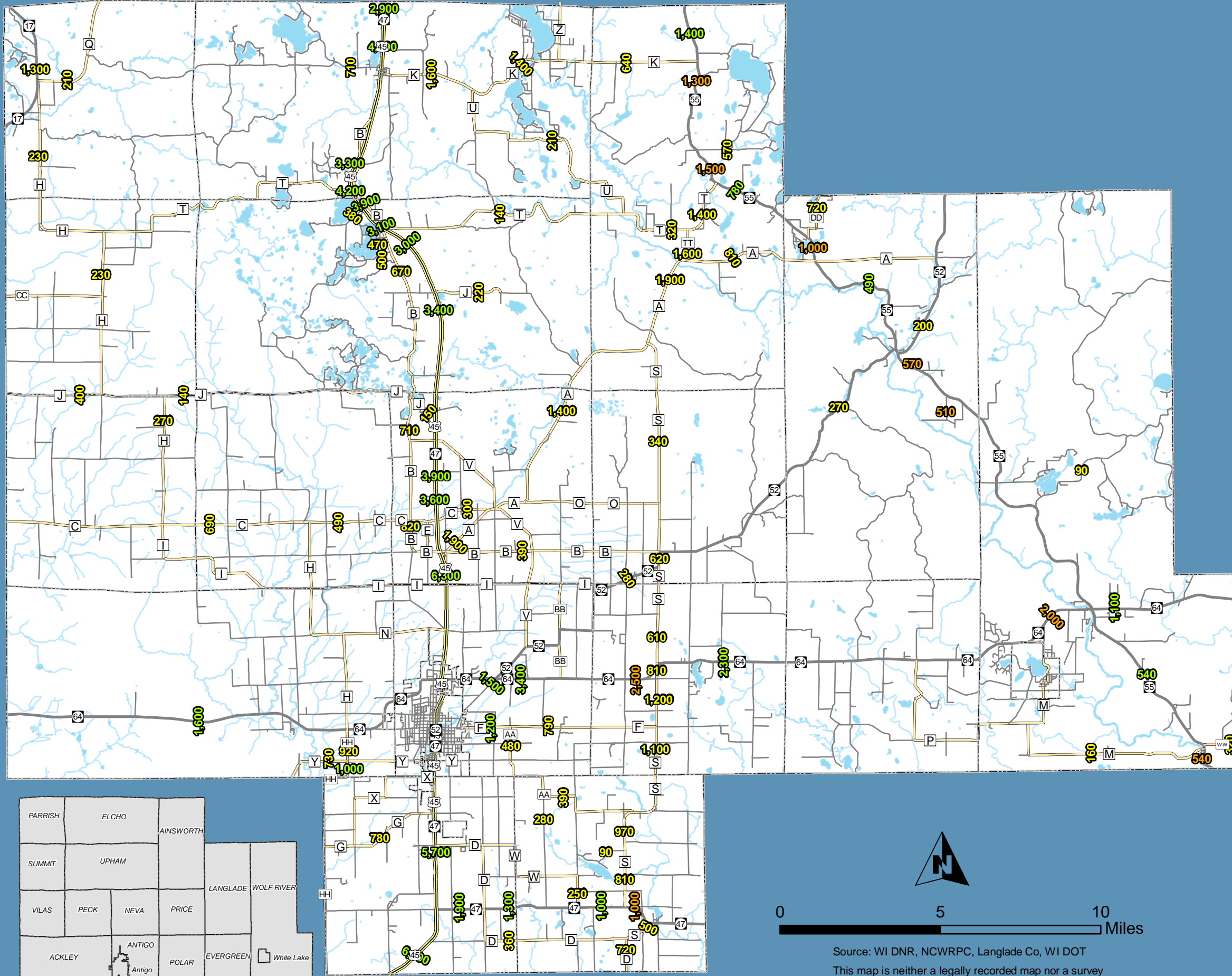
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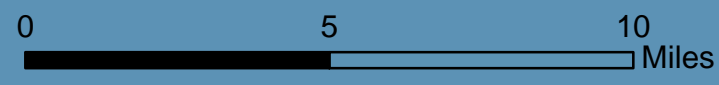
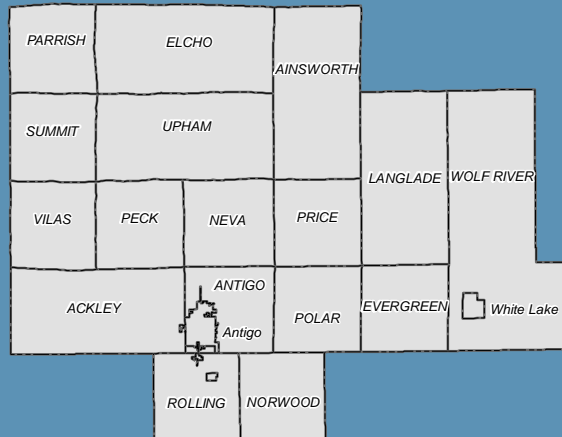
Map 4
Traffic Counts
 Langlade County, Wisconsin



Legend

- US Highways
- State Highways
- County Highways
- Local Roads / Other Roads
- Water

- 500** Traffic Count 2015
- 500** Traffic Count 2012
- 500** Traffic Count 2009



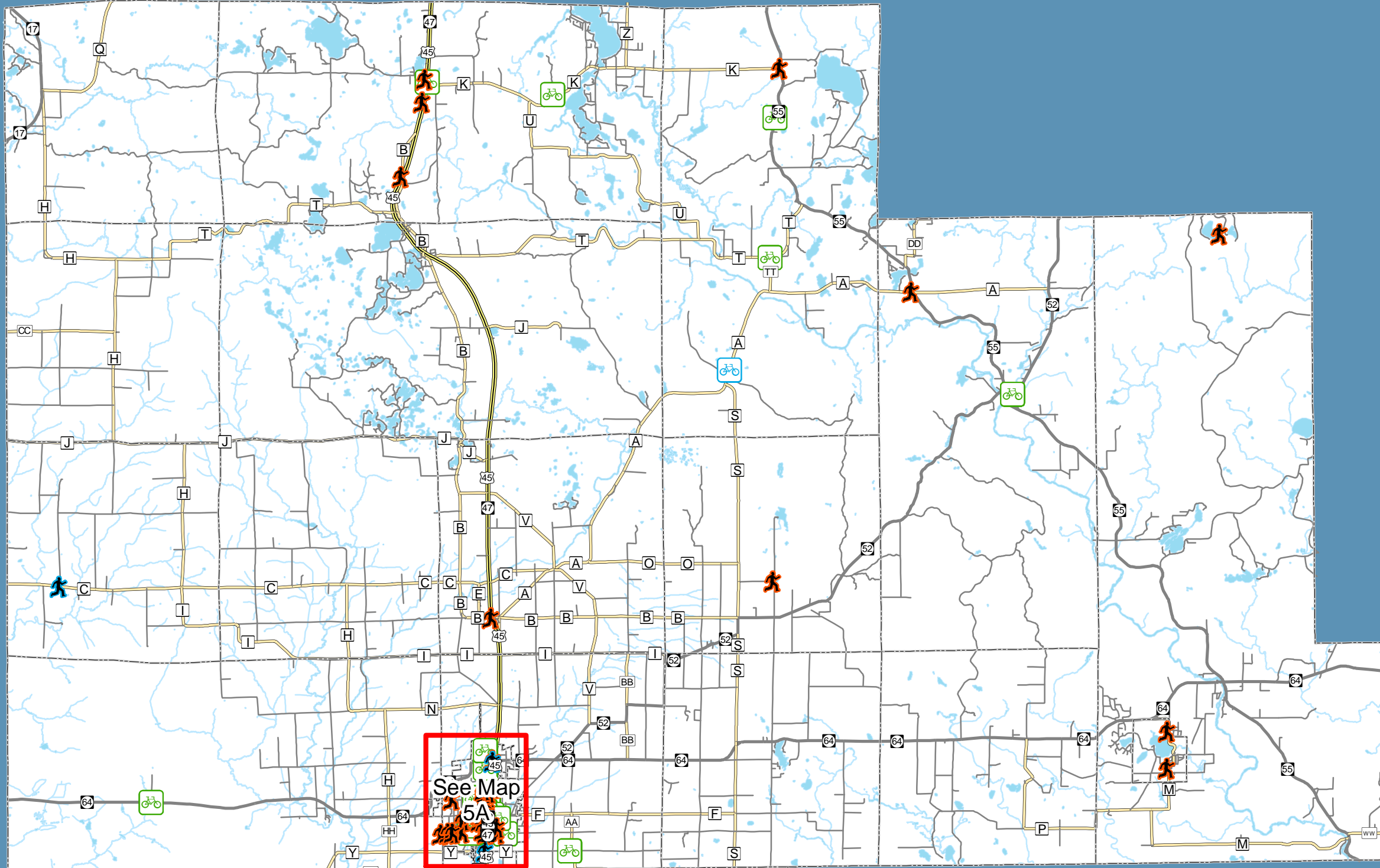
Source: WI DNR, NCWRPC, Langlade Co, WI DOT
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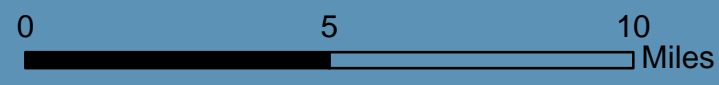
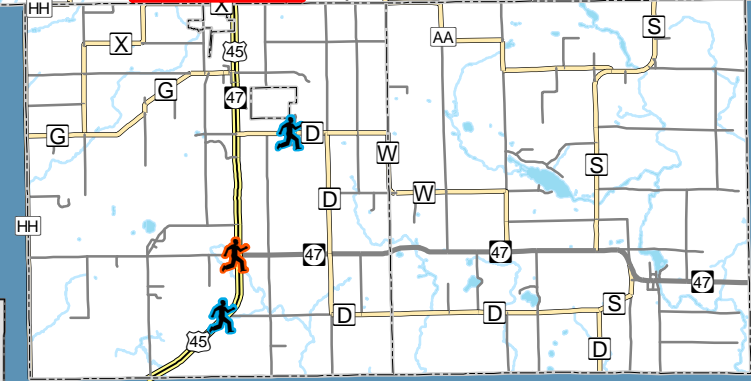
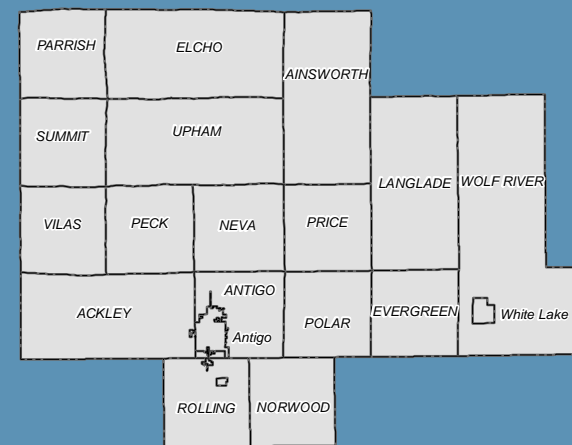
Map 5
Crash Locations
 Langlade County, Wisconsin



Legend

-  Bicycle Crash
-  Bicycle Fatal Crash
-  Pedestrian Crash
-  Pedestrian Fatal Crash
-  US Highways
-  State Highways
-  County Highways
-  Local Roads / Other Roads
-  Water

See Map
 5A



Source: WI DNR, NCWRPC, Langlade Co, WI DOT
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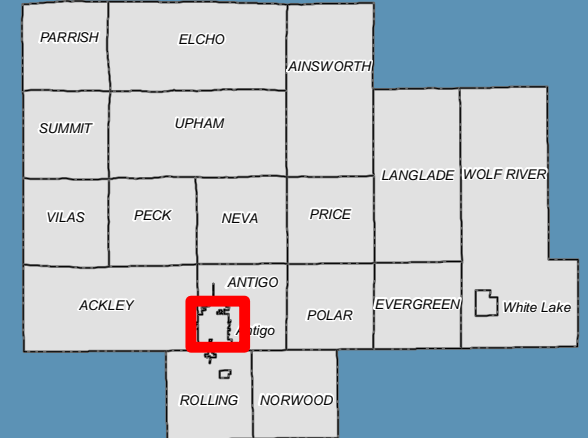


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Map 5A Crash Locations

City of Antigo, Wisconsin



Legend

-  Bicycle Crash
-  Pedestrian Crash
-  Pedestrian Fatal Crash
-  Roads
-  Water

Source: WI DNR, NCWRPC, Langlade Co, WI DOT

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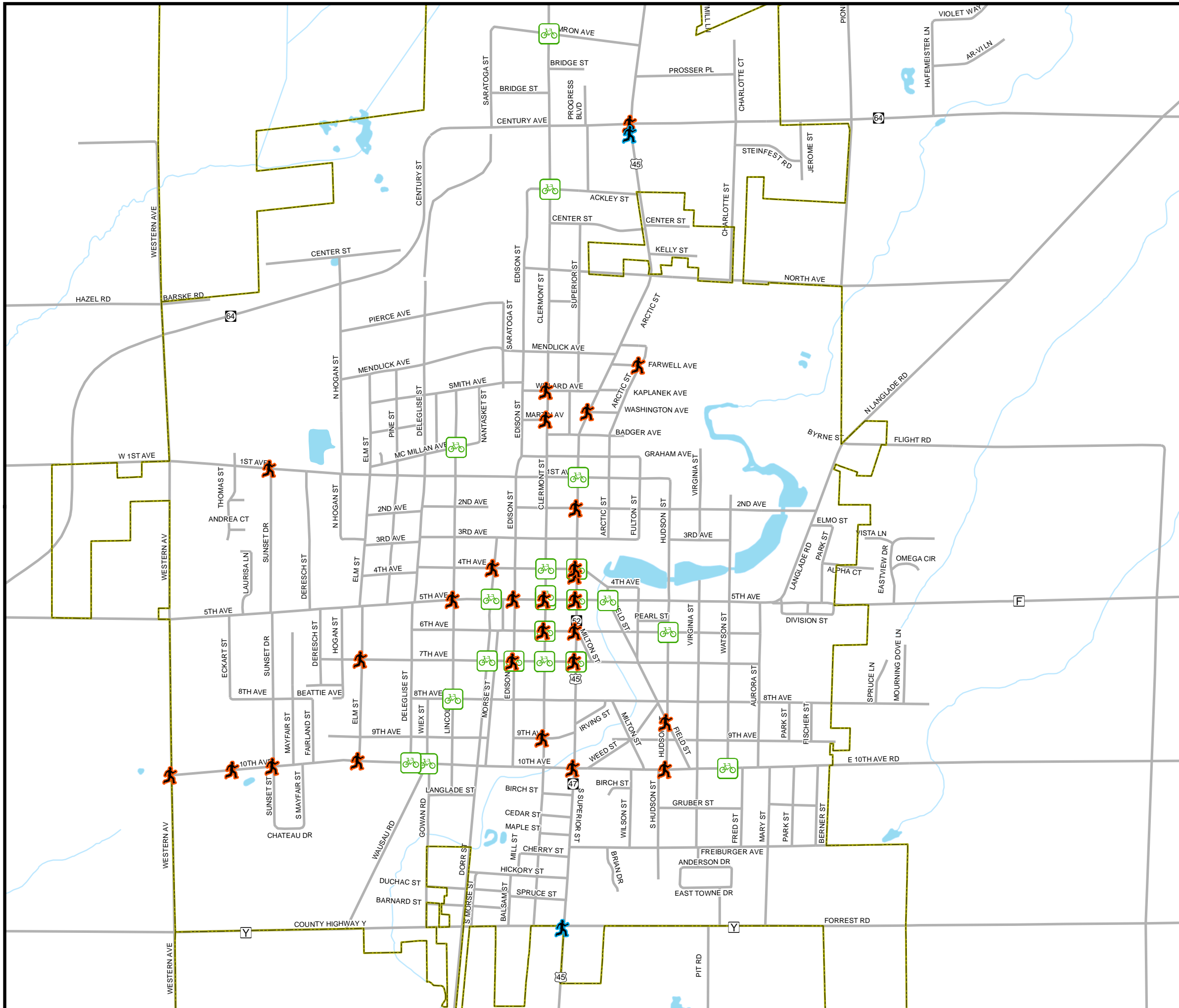


0 0.5 1 Miles



Prepared By:
**North Central
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715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org



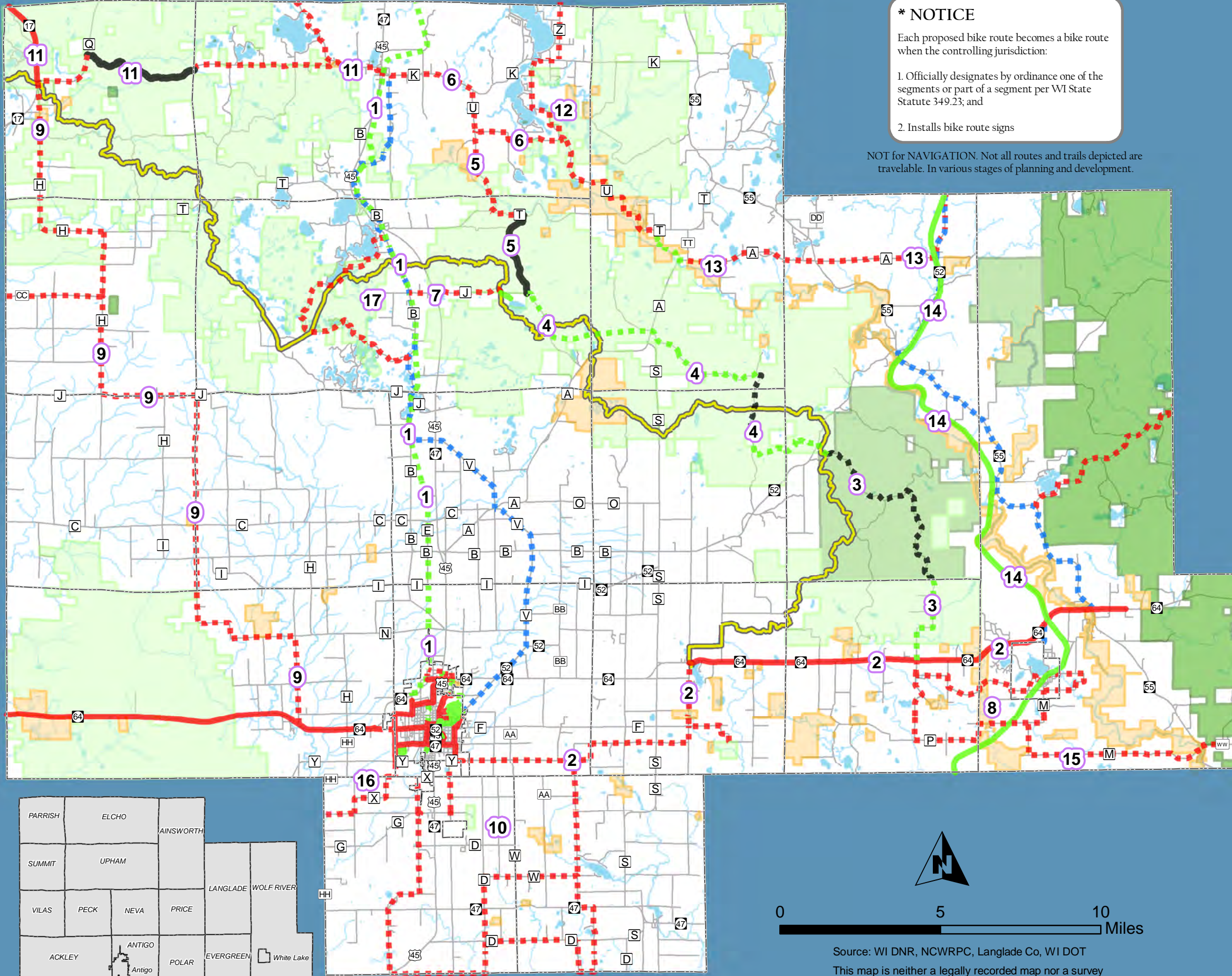
Map 6 Proposed Network Langlade County, Wisconsin

* NOTICE

Each proposed bike route becomes a bike route when the controlling jurisdiction:

1. Officially designates by ordinance one of the segments or part of a segment per WI State Statute 349.23; and
2. Installs bike route signs

NOT for NAVIGATION. Not all routes and trails depicted are travelable. In various stages of planning and development.



Legend

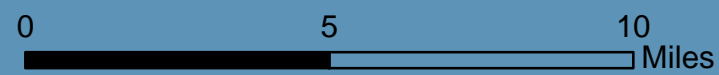
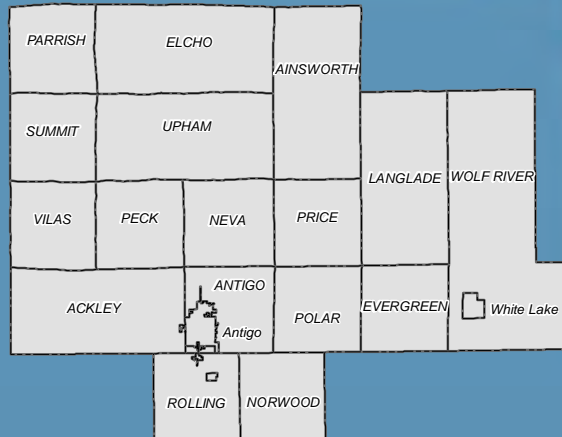
- Roads
- Water
- ■ ■ Alternate / Seasonal Route
- Existing Fire Lane
- Existing Off Road
- Existing On Road
- ■ ■ Proposed Fire Lane
- Proposed Off Road
- Proposed On Road
- Ice Age Trail
- County Lands
- Nicolet National Forest
- Forest Legacy Program
- State Lands
- 9 Corridor Number*

* Refer to in-plan text for more detailed description of corridors.

PROPOSED COUNTYWIDE* NETWORK MILEAGE

	Existing	Proposed	Total
Off-Road	28.94	43.87	72.81
On-Fire Lane	6.81	9.27	16.08
On-Road	42.31	163.83	206.14
Total	78.06	221.21	295.03

*Includes City of Antigo



Source: WI DNR, NCWRPC, Langlade Co, WI DOT

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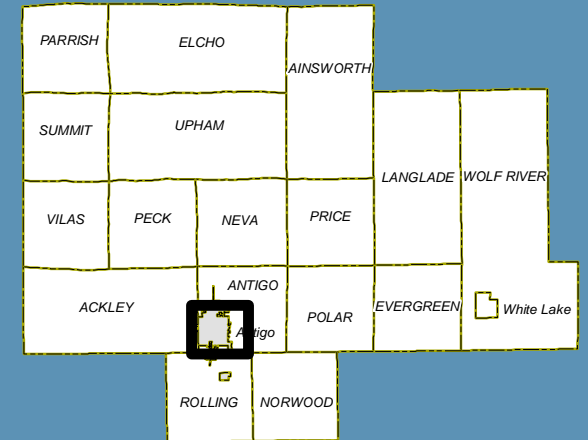


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Map 6A Proposed Network

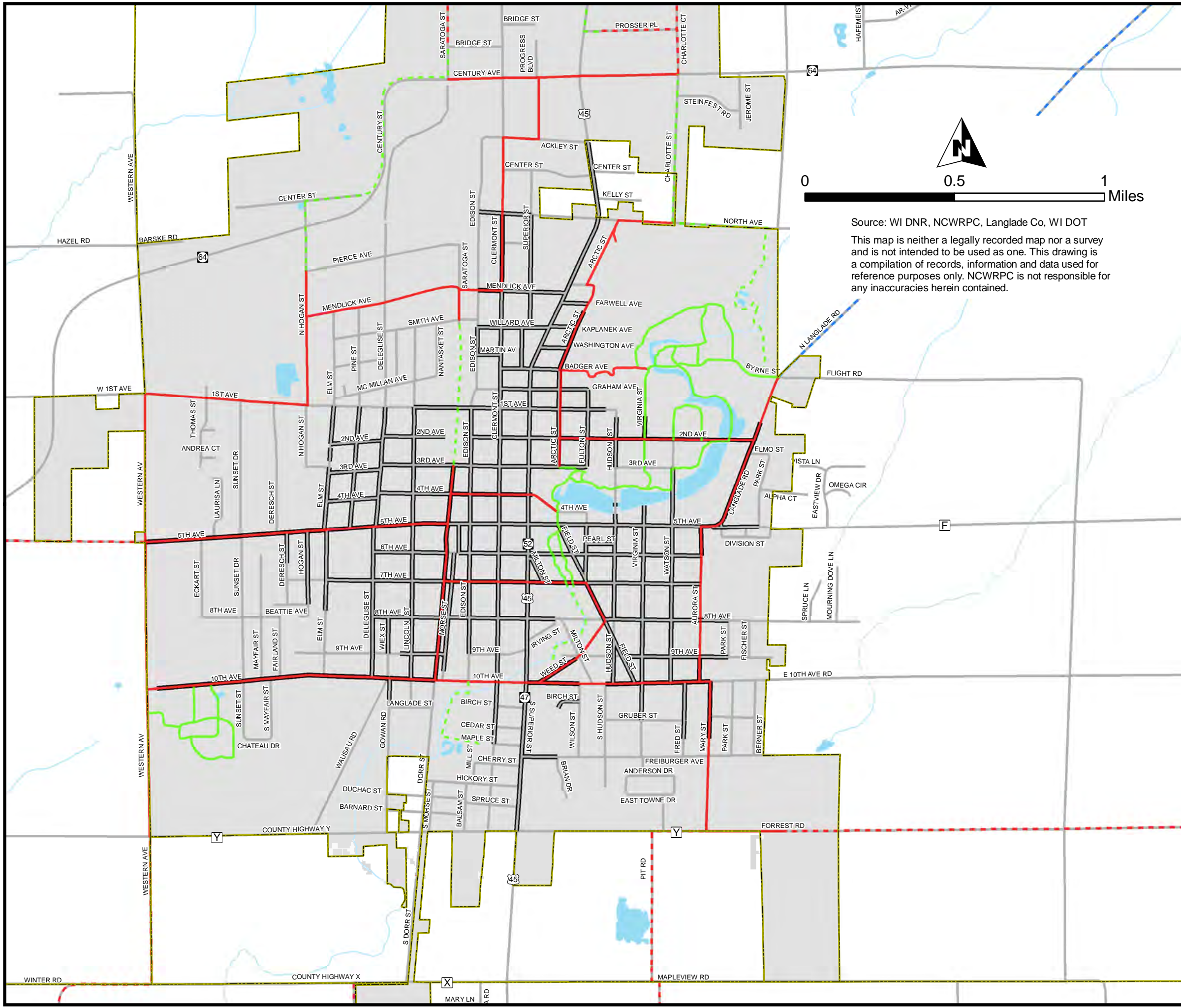
City of Antigo, Wisconsin



0 0.5 1 Miles

Source: WI DNR, NCWRPC, Langlade Co, WI DOT

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Legend

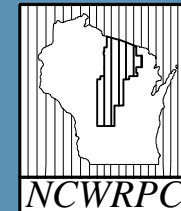
- Roads
- Water
- Alternate / Seasonal Route
- Existing Off Road
- Existing On Road
- Proposed Off Road
- Proposed On Road
- Existing Sidewalk

* NOTICE

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